

— Handbook of Fourier Analysis & Its Applications

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- [1] J.B. Abbiss, C. De Mol, and H.S. Dhadwal. Regularized iterative and non-iterative procedures for object restoration from experimental data. *Opt. Acta*, pp. 107–124, 1983.
- [2] J.B. Abbiss, B.J. James, J.S. Bayley, and M.A. Fiddy. Super-resolution and neural computing. *Proceedings SPIE, International Society Optical Engineering*, pp. 100–106, 1988.
- [3] Edwin A. Abbott. **Flatland: A Romance of Many Dimensions**. Dover, 2007. Originally published in 1884.
- [4] Ray Abma and Nurul Kabir. 3D interpolation of irregular data with a POCS algorithm. *Geophysics. Vol. 71(6)*, pp. E91–E97, 2006.
- [5] M. Abramowitz and I.A. Stegun. **Handbook of Mathematical Functions**. Dover, New York, 9th ed., 1964.
- [6] L.D. Abreu. A q-sampling theorem related to the q-Hankel transform. *Proceedings of the American Mathematical Society, Vol. 133(4)*, pp. 1197–1203, 2005.
- [7] Amir D. Aczel. **The Mystery of the Aleph: Mathematics, the Kabbalah, and the Human Mind**. Four Walls Eight Windows, 2000.
- [8] H.C. Agarwal. Heat transfer in laminar flow between parallel plates at small Peclet numbers. *Applied Sci. Res., Vol. 9*, pp. 177–189, 1960.
- [9] R. Agarwal, M. Bohner, and A. Peterson. Inequalities on time scales: A survey. *Mathematical Inequalities and Applications, Vol. 4(4)*, pp. 535–557, 2001.
- [10] R. Agarwal, M. Bohner, D. O’Regan *et al.* Dynamic equations on time scales: a survey. *Journal of Computational and Applied Mathematics, Vol. 141(1–2)*, pp. 1–26, 2002.
- [11] T.H. Ahberg, E.N. Nilson, and T.L. Walsh. **The Theory of Splines and Their Applications**. Academic Press, New York, 1964.
- [12] C.B. Ahn, J.H. Kim, and Z.H. Cho. High-speed spiral echo planar NMR imaging – I. *IEEE Transactions Medical Imaging, Vol. MI-5*, pp. 2–7, 1986.
- [13] S.T. Alexander. Fast Adaptive Filters: A Geometrical Approach. *IEEE ASSP Magazine*, pp. 18–28, 1986.
- [14] Z. Alkachouh and M. G. Bellanger. Fast DCT-based spatial domain interpolation of blocks in images. *IEEE Transactions Image Processing., Vol. 9, No. 4*. pp. 729–732, 2000.
- [15] J.P. Allebach. Analysis of sampling pattern dependence in time-sequential sampling of spatio-temporal signals. *Journal of the Optical Society America, Vol. 71*, pp. 99–105, 1981.
- [16] L.B. Almeida. An introduction to the angular Fourier transform. *Proceedings IEEE International Conf. Acoust., Speech, Signal Process., Minneapolis, MN*, 1993.
- [17] L.B. Almeida. The fractional Fourier transform and time-frequency representations. *IEEE Transactions on Signal Processing. Vol. 42(11)*, pp. 3084–3091, 1994.
- [18] L.B. Almeida, Product and Convolution Theorems for the Fractional Fourier Transform. *IEEE Signal Processing Letters, Vol. 4(1)*, pp. 15–17, 1997.

- [19] Oktay Altun, Gaurav Sharma, Mehmet U. Celik, and Mark F. Bocko. A set theoretic framework for watermarking and its application to semifragile tamper detection. *IEEE Transactions on Information Forensics and Security*, Vol. 1(4), pp. 479–492, 2006.
- [20] M. Ancis and D.D. Giusto. Reconstruction of missing blocks in JPEG picture transmission. *IEEE Pacific Rim Conference*, pp. 288–291, 1999.
- [21] B. Andò, S. Baglio, S. Graziani and N. Pitrone. Threshold Error Reduction in Linear Measurement Devices by Adding Noise Signal. *Proceedings of the IEEE Instrumentation and Measurements Technology Conference*, St. Paul, Minnesota, pp. 18–21, 42–46, 1998.
- [22] H.C. Andrews and C.L. Patterson. Singular value decompositions and digital image processing. *IEEE Transactions Acoust., Speech, Signal Processing*, pp. 26–53, 1976.
- [23] K. Araki. Sampling and recovery formula in finite Hankel transform based on the minimum norm principle. *Transactions Institute Electron. Commun. Engineering Jpn.*, Vol. J68A, pp. 643–649, 1985.
- [24] F. Arago. **Joseph Fourier, Biographies of Distinguished Scientific Men**. London, pp. 242–286, 1957.
- [25] H. Arsenault. Diffraction theory of Fresnel zone plates. *Journal of the Optical Society America*, Vol. 58, p. 1536, 1968.
- [26] H. Arsenault and A. Boivin. An axial form of the sampling theorem and its application to optical diffraction. *Journal Applied Phys.*, Vol. 38, pp. 3988–3990, 1967.
- [27] H. Arsenault and K. Chalasiniska-Macukow. The solution to the phase retrieval problem using the sampling theorem. *Optical Communication*, Vol. 47, pp. 380–386, 1983.
- [28] H. Arsenault and B. Genestar. Deconvolution of experimental data. *Can. J. Phys.*, Vol. 49, pp. 1865–1868, 1971.
- [29] H. Artes, F. Hlawatsch and G. Matz. Efficient POCS algorithms for deterministic blind equalization of time-varying channels. IEEE Global Telecommunications Conference, 2000. GLOBECOM '00. Vol. 2,27, pp. 1031–1035, 2000.
- [30] S. Chaturvedi, N. Arvind, Mukunda, *et al.* The sampling theorem and coherent state systems in quantum mechanics. *Physica Scripta*, Vol. 74(2), pp. 168–179, 2006.
- [31] R.B. Ash. **Information Theory**. Interscience, New York, 1965.
- [32] J.L. Aravena. *Recursive moving window DFT algorithm*. *IEEE Transactions Computers*, Vol. 39, pp. 145–151, 1990.
- [33] Nakhle H. Asmar. **Partial Differential Equations and Boundary Value Problems with Fourier Series (2nd Edition)**. Prentice Hall, 2004.
- [34] C. Atzeni and L. Masotti. A new sampling procedure for the synthesis of linear transversal filters. *IEEE Transactions Aerospace & Electronic Systems*, Vol. AES-7, pp. 662–670, 1971.
- [35] T. Auba and Y. Funahashi. The structure of all-pass matrices that satisfy directional interpolation requirements. *IEEE Transactions Automatic Control*, Vol. 36, pp. 1485–1489, 1991.
- [36] T. Auba and Y. Funahashi. The structure of all-pass matrices that satisfy two-sided interpolation requirements. *IEEE Transactions Automatic Control*, Vol. 36, pp. 1489–1493, 1991.
- [37] D.A. August and W.B. Levy. A simple spike train decoder inspired by the sampling theorem. *Neural Computation*, Vol. 8(1), pp. 67–84, 1996.
- [38] Saint Augustine. **DeGenesi ad Letteram, Book II**.
- [39] L. Auslander and R. Tolimieri. Characterizing the radar ambiguity functions. *IEEE Transactions Information Theory*, Vol. IT-30, pp. 832–836, 1984.

B

- [40] A. Bachl and W. Lukosz. Experiment on super-resolution imaging of a reduced object field. *Journal of the Optical Society America*, Vol. 57, pp. 163–169, 1967.
- [41] Sonali Bagchi and Sanjit K. Mitra. **The Nonuniform Discrete Fourier Transform and its Applications in Signal Processing**. Springer, 1998.
- [42] A.V. Balakrishnan. A note on the sampling principle for continuous signals. *IRE Transactions Information Theory*, Vol. IT-3, pp. 143–146, 1957.
- [43] A.V. Balakrishnan. On the problem of time jitter in sampling. *IRE Transactions Information Theory*, Vol. IT-8, pp. 226–236, 1962.

- [44] A.V. Balakrishnan. Essentially bandlimited stochastic processes. *IEEE Transactions Information Theory*, Vol. IT-11, pp. 145–156, 1965.
- [45] C. Bardaro, P.L. Butzer, R.L. Stens RL, *et al.* Approximation error of the Whittaker cardinal series in terms of an averaged modulus of smoothness covering discontinuous signals. *Journal of Mathematical Analysis and Applications*, Vol. 316(1), pp. 269–306, 1 2006.
- [46] I. Bar-David. An implicit sampling theorem for bounded bandlimited functions. *Information & Control*, Vol. 24, pp. 36–44, 1974.
- [47] I. Bar-David. Sample functions of a Gaussian process cannot be recovered from their zero crossings. *IEEE Transactions Information Theory*, Vol. IT-21, pp. 86–87, 1975.
- [48] I. Bar-David. On the degradation of bandlimiting systems by sampling. *IEEE Transactions Communications*, Vol. COM-25, pp. 1050–1052, 1977.
- [49] R. Barakat. Application of the sampling theorem to optical diffraction theory. *Journal of the Optical Society America*, Vol. 54, pp. 920–930, 1964.
- [50] R. Barakat. Determination of the optical transfer function directly from the edge spread function. *Journal of the Optical Society America*, Vol. 55, pp. 1217–1221, 1965.
- [51] R. Barakat. Nonlinear transformation of stochastic processes associated with Fourier transforms of bandlimited positive functions. *International J. Contr.*, Vol. 14, No. 6, pp. 1159–1167, 1971.
- [52] R. Barakat. Note on a sampling expansion posed by O'Neill and Walther. *Optical Communication*, Vol. 23, pp. 207–208, 1977.
- [53] R. Barakat. Shannon numbers of diffraction images. *Optical Communication*, pp. 391–394, 1982.
- [54] R. Barakat and E. Blackman. Application of the Tichonov regularization algorithm to object restoration. *Optical Communication*, pp. 252–256, 1973.
- [55] R. Barakat and A. Houston. Line spread and edge spread functions in the presence of off-axis aberrations. *Journal of the Optical Society America*, Vol. 55, pp. 1132–1135, 1965.
- [56] R. Barakat and J.E. Cole III. Statistical properties of n random sinusoidal waves in additive Gaussian noise. *Journal Sound and Vibration*, Vol. 63, pp. 365–377, 1979.
- [57] V. Bargmann, P. Butera, L. Girardello, and J.R. Klauder. On the completeness of the coherent states, *Rep. Math. Phys.* 2, pp. 221–228, 1971.
- [58] H.A. Barker. Synchronous sampling theorem for nonlinear systems. *Electron. Letters*, Vol. 5, p. 657, 1969.
- [59] C.W. Barnes. Object restoration in a diffraction-limited imaging system. *Journal of the Optical Society America*, Vol. 56, pp. 575–578, 1966.
- [60] H.O. Bartelt, K.H. Brenner, and A.W. Lohmann. The Wigner distribution function and its optical production. *Optical Communication* Vol. 32, pp. 32–38, 1980.
- [61] H.O. Bartelt and J. Jahns. Interferometry based on the Lau effect. *Optical Communication*, pp. 268–274, 1979.
- [62] M.J. Bastiaans. A frequency-domain treatment of partial coherence. *Opt. Acta*, Vol. 24, pp. 261–274, 1977.
- [63] M.J. Bastiaans. A generalized sampling theorem with application to computer-generated transparencies. *Journal of the Optical Society America*, Vol. 68, pp. 1658–1665, 1978.
- [64] M.J. Bastiaans. The Wigner distribution function applied to optical signals and systems. *Optical Communication*, Vol. 25, pp. 26–30, 1978.
- [65] M.J. Bastiaans. The Wigner distribution function and Hamilton's characteristics of a geometrical-optical system. *Optical Communication*, Vol. 30, pp. 321–326, 1979.
- [66] M.J. Bastiaans. Sampling theorem for the complex spectrogram, and Gabor's expansion of a signal in Gaussian elementary signals, in *1980 International Optical Computing Conference*, ed. W.T. Rhodes, *Proceedings SPIE*, Vol. 231, pp. 274–280, 1980 (also published in *Optical Engineering*, Vol. 20, pp. 594–598, 1981).
- [67] M.J. Bastiaans. The expansion of an optical signal into a discrete set of Gaussian beams. *Optik*, Vol. 57, pp. 95–102, 1980.
- [68] M.J. Bastiaans. A sampling theorem for the complex spectrogram, and Gabor's expansion of a signal in Gaussian elementary signals. *Optical Engineering*, Vol. 20, pp. 594–598, 1981.

- [69] M.J. Bastiaans. Gabor's signal expansion and degrees of freedom of a signal. *Opt. Acta*, Vol. 29, pp. 1223–1229, 1982.
- [70] M.J. Bastiaans. Optical generation of Gabor's expansion coefficients for rastered signals. *Opt. Acta*, Vol. 29, pp. 1349–1357, 1982.
- [71] M.J. Bastiaans. Signal description by means of a local frequency spectrum. *Proceedings SPIE, International Society Optical Engineering*, Vol. 373, pp. 49–62, 1981.
- [72] M.J. Bastiaans. Gabor's signal expansion and degrees of freedom of a signal. *Opt. Acta*, Vol. 29, pp. 1223–1229, 1982.
- [73] M.J. Bastiaans. On the sliding-window representation in digital signal processing. *IEEE Transactions Acoust., Speech, Signal Processing Vol. ASSP-33*, pp. 868–873, 1985.
- [74] M.J. Bastiaans. Error reduction in two-dimensional pulse-area modulation, with application to computer-generated transparencies. *14th Congress of the International Commission for Optics*, ed. H.H. Arsenault, *Proceedings SPIE*, Vol. 813, pp. 341–342, 1987.
- [75] M.J. Bastiaans. Error reduction in one-dimensional pulse-area modulation, with application to computer-generated transparencies. *Journal of the Optical Society America A*, Vol. 4, pp. 1879–1886, 1987.
- [76] M.J. Bastiaans. Local-frequency descriptions of optical signals and systems. EUT Report 88–E–191 (Faculty of Electrical Engineering, Eindhoven University of Technology, Eindhoven, Netherlands, 1988).
- [77] M.J. Bastiaans. Gabor's signal expansion applied to partially coherent light. *Optical Communication*, Vol. 86, pp. 14–18, 1991.
- [78] M.J. Bastiaans. On the design of computer-generated transparencies based on area modulation of a regular array of pulses. *Optik*, Vol. 88, pp. 126–132, 1991.
- [79] M.J. Bastiaans. Second-order moments of the Wigner distribution function in first-order optical systems. *Optik*, Vol. 88, pp. 163–168, 1991.
- [80] M.J. Bastiaans, M.A. Machado, and L.M. Narducci. The Wigner distribution function and its applications in optics. *Optics in Four Dimensions-1980, AIP Conf. Proceedings 65*, eds. (American Institute of Physics, New York, 1980), pp. 292–312, 1980.
- [81] Sankar Basu and Bernard C. Levy. **Multidimensional Filter Banks and Wavelets: Basic Theory and Cosine Modulated Filter Banks**. Springer, 1996.
- [82] J.S. Bayley and M.A. Fiddy. On the use of the Hopfield model for optical pattern recognition. *Optical Communication*, pp. 105–110, 1987.
- [83] M.G. Beatty and M.M. Dodson. The Whittaker-Kotel'nikov-Shannon theorem, spectral translates and Plancherel's formula. *Journal of Fourier Analysis and Applications*, Vol. 10(2), pp. 179–199, 2004.
- [84] Reinhard Beer. **Remote Sensing by Fourier Transform Spectrometry**. John Wiley & Sons, 1992.
- [85] A.H. Beiler. Ch. 11 in **Recreations in the Theory of Numbers: The Queen of Mathematics Entertains**. New York: Dover, 1966.
- [86] G.A. Bekey and R. Tomovic. Sensitivity of discrete systems to variation of sampling interval. *IEEE Transactions Automatic Control*, Vol. AC-11, pp. 284–287, 1966.
- [87] B.W. Bell and C.L. Koliopoulos. Moiré topography, sampling theory, and charged-coupled devices. *Optical Letters*, Vol. 9, pp. 171–173, 1984.
- [88] D.A. Bell. The Sampling Theorem. *International Journal of Electrical Engineering*, Vol. 18(2), pp. 175–175, 1981.
- [89] E.T. Bell. **Men of Mathematics**. Touchstone (Reissue edition) 1986.
- [90] V.K. Belov and S.N. Grishkin. Digital bandpass filters with nonuniform sampling. *Priborostroenie*, Vol. 23, No. 3 (in Russian), pp. 3–7, 1980.
- [91] V.I. Belyayev. Processing and theoretical analysis of oceanographic observations. *Translation from Russian JPRS 6080*, 1973.
- [92] John J. Benedetto and Paulo J.S.G. Ferreira. **Modern Sampling Theory**. by (Hardcover - Feb. 16, 2001) Birkhäuser user Boston, 2001.
- [93] J.J. Benedetto and Ahmed I. Zayed (Editors). **Sampling, Wavelets, and Tomography**. Pub. Date: December 2003 Publisher: Birkhäuser user Verlag.

- [94] M. Bendinelli, A. Consortini, L. Ronchi, and R.B. Frieden. Degrees of freedom and eigenfunctions of the noisy image. *Journal of the Optical Society America*, Vol. 64, pp. 1498–1502, 1974.
- [95] M. Bennett, *et al.* Filtering of ultrasound echo signals with the fractional Fourier transform. *Proceedings of the 25th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Vol. 1(17–21), pp. 882–885, 2003.
- [96] N. Benvenuto and G.L. Pierobin. Extension of the sampling theorem to exponentially decaying causal functions. *IEEE Transactions on Signal Processing*, Vol. 39(1), pp. 189–190, 1991.
- [97] N. Benvenuto, L. Franks, F. Hill. Realization of Finite Impulse Response Filters Using Coefficients +1, 0, and –1. *IEEE Transactions on Communications*, Oct 1985, Vol.33, Issue 10, pp. 1117–1125.
- [98] E.M. Bernat, W.J. Williams, and W.J. Gehring. Decomposing ERP time-frequency energy using PCA. *Clinical Neurophysiology*. Vol. 116(6), pp. 1314–1334, 2005.
- [99] M. Bertero. Linear inverse and ill-posed problems. In P.W. Hawkes, editor, **Advances in Electronics and Electron Physics**. Academic Press, New York, 1989.
- [100] M. Bertero, P. Boccacci, and E.R. Pike. Resolution in diffraction-limited imaging, a singular value analysis. II. The case of incoherent illumination. *Opt. Acta*, pp. 1599–1611, 1982.
- [101] M. Bertero, C. de Mol, E.R. Pike, and J.G. Walker. Resolution in diffraction-limited imaging, a singular value analysis. IV. The case of uncertain localization or non-uniform illumination of the object. *Opt. Acta*, pp. 923–946, 1984.
- [102] M. Bertero, C. De Mol, and E.R. Pike. Analytic inversion formula for confocal scanning microscopy. *Journal of the Optical Society America A*, pp. 1748–1750, 1987.
- [103] M. Bertero, C. De Mol, and G.A. Viano. Restoration of optical objects using regularization. *Optics Letters*, pp. 51–53, 1978.
- [104] M. Bertero, C. De Mol, and G.A. Viano. On the problems of object restoration and image extrapolation in optics. *Journal Math. Phys.*, pp. 509–521, 1979.
- [105] M. Bertero and E.R. Pike. Resolution in diffraction-limited imaging, a singular value analysis. I. The case of coherent illumination. *Opt. Acta*, pp. 727–746, 1982.
- [106] M. Bertero and E.R. Pike. Exponential sampling method for Laplace and other dilationally invariant transforms: I. Singular system analysis. *Inverse Problems*, pp. 1–20, 1991.
- [107] M. Bertero and E.R. Pike. Exponential sampling method for Laplace and other dilationally invariant transforms: II. Examples in photon correlation spectroscopy and Fraunhofer diffraction. *Inverse Problems*, pp. 21–41, 1991.
- [108] A.S. Besicovitch. **Almost Periodic Functions**. Wiley Interscience, New York, 1968.
- [109] F.J. Beutler. Sampling theorems and bases in a Hilbert space. *Information & Control*, Vol. 4, pp. 97–117, 1961.
- [110] F.J. Beutler. Error-free recovery of signals from irregularly spaced samples. *SIAM Review*, Vol. 8, No. 3, pp. 328–335, 1966.
- [111] F.J. Beutler. Alias-free randomly timed sampling of stochastic processes. *IEEE Transactions on Information Theory*, Vol. IT-16, pp. 147–152, 1970.
- [112] F.J. Beutler. Recovery of randomly sampled signals by simple interpolators. *Information & Control*, Vol. 26, No. 4, pp. 312–340, 1974.
- [113] F.J. Beutler. On the truncation error of the cardinal sampling expansion. *IEEE Transactions Information Theory*, Vol. IT-22, pp. 568–573, 1976.
- [114] F.J. Beutler and D.A. Leneman. Random sampling of random processes: stationary point processes. *Information & Control*, Vol. 9, pp. 325–344, 1966.
- [115] F.J. Beutler and D.A. Leneman. The theory of stationary point processes. *Acta Math*, Vol. 116, pp. 159–197, September 1966.
- [116] V. Bhaskaran and K. Konstantinides. **Image and Video Compression Standards**, Kluwer, 1995.
- [117] Arun K. Bhattacharyya. **Phased Array Antennas: Floquet Analysis, Synthesis, BFNs and Active Array Systems**. Wiley-Interscience, 2006.
- [118] A.M. Bianchi and L.T. Mainardi and S. Cerutti. Time-frequency analysis of biomedical signals. *Transactions of the Institute of Measurement and Control*, Vol. 22(3), pp. 215–230, 2000.

- [119] H.S. Black. **Modulation Theory**. Van Nostrand, New York, 1953.
- [120] R.B. Blackman and J.W. Tukey. The measurement of power spectra from the point of view of communications engineering. *Bell Systems Tech. J.*, Vol. 37, p. 217, 1958.
- [121] W.E. Blash. Establishing proper system parameters for digitally sampling a continuous scanning spectrometer. *Applied Spectroscopy.*, Vol. 30, pp. 287–289, 1976.
- [122] V. Blažek. Sampling theorem and the number of degrees of freedom of an image. *Optical Communication*, Vol. 11, pp. 144–147, 1974.
- [123] E.M. Bliss. Watch out for hidden pitfalls in signal sampling. *Electron. Engineering*, Vol. 45, pp. 59–61, 1973.
- [124] Peter Bloomfield. **Fourier Analysis of Time Series: An Introduction**. Wiley-Interscience, 2000.
- [125] R.P. Boas, Jr. **Entire Functions**. Academic Press, New York, 1954.
- [126] R.P. Boas, Jr. Summation formulas and bandlimited signals. *Tohoku Math. J.*, Vol. 24, pp. 121–125, 1972.
- [127] Salomon Bochner and Komaravolu Chandrasekharan. **Fourier Transforms**. Princeton University Press, 1949.
- [128] M. Böhner and A. Peterson. **Dynamic Equations on Time Scales: An Introduction with Applications**. Birkhäuser, Boston, 2001.
- [129] M. Böhner and A. Peterson, **Dynamic Equations on Time Scales**, Birkhäuser, Boston, 2001.
- [130] H. Bohr. **Almost Periodic Functions**. Wiley Interscience, New York, 1968.
- [131] A. Boivin and C. Deckers. A new sampling theorem for the complex degree of coherence for reconstruction of a luminous isotropic source. *Optical Communication*, Vol. 26, pp. 144–147, 1978.
- [132] P. Bonato, S.H. Roy, M. Knaflitz *et al.* Time-frequency parameters of the surface myoelectric signal for assessing muscle fatigue during cyclic dynamic contractions. *IEEE Transactions of Biomedical Engineering*. Vol. 48(7), pp. 745–753, 2001.
- [133] F.E. Bond and C.R. Cahn. On sampling the zeros of bandwidth limited signals. *IRE Transactions Information Theory*, Vol. IT-4, pp. 110–113, 1958.
- [134] F.E. Bond, C.R. Cahn, and J.C. Hancock. A relation between zero crossings and Fourier coefficients for bandlimited functions. *IRE Transactions Information Theory*, Vol. IT-6, pp. 51–55, 1960.
- [135] C. de Boor. **A Practical Guide to Splines**. Springer-Verlag, New York, 1978.
- [136] E. Borel. Sur l'interpolation. *C.R. Acad. Sci. Paris*, Vol. 124, pp. 673–676, 1877.
- [137] E. Borel. Mémoire sur les séries divergentes. *Ann. Ecole Norm. Sup.*, Vol. 3, pp. 9–131, 1899.
- [138] E. Borel. La divergence de la formule de Lagrange a été établie également. In *Leçons sur les fonctions de variables réelles et les développements en séries de polynômes*. Gauthier-Villars, Paris, 1905, pp. 74–79.
- [139] M. Born and E. Wolf. **Principles of Optics**. Pergamon Press, Oxford, 1980.
- [140] T. Bortfeld, J. Burkelbach, R. Boesecks, and W. Schlegal. Methods of image reconstruction from projections applied to conformation radiotherapy. *Phys. Med. Biol.*, Vol. 35, pp. 1423–34, 1990.
- [141] Robert L. Boylestad, and Louis Nashelsky. **Electronic Devices and Circuit Theory** (8th Edition), Prentice Hall, 2001.
- [142] A. Boumenir *et al.* Eigenvalues of periodic Sturm-Liouville problems by the Shannon-Whittaker sampling theorem. *Mathematics of Computation*, Vol. 68(227), pp. 1057–1066, 1999.
- [143] F. Bouzeffour. A q-sampling theorem and product formula for continuous q-Jacobi functions. *Proceedings of the American Mathematical Society*, Vol. 135(7), pp. 2131–2139, 2007.
- [144] G.E.T. Box and G.M. Jenkins. **Time Series Analysis. Forecasting and Control** (revised edition). Holden-Day, San Francisco, 1976.
- [145] G.D. Boyd and J.P. Gordon. Confocal multimode resonator for millimeter through optical wavelength masers. *Bell Systems Tech. J.*, pp. 489–508, 1961.
- [146] G.D. Boyd and H. Kogelnik. Generalized confocal resonator theory. *Bell Systems Tech. J.*, pp. 1347–1369, 1962.

- [147] G.R. Boyer. Realization d'un filtrage super-resolvant. *Opt. Acta*, pp. 807–816, 1983.
- [148] Ronald Newbold Bracewell. **The Fourier Transform and its Applications**, McGraw-Hill, 1965.
- [149] Ronald Newbold Bracewell. **The Fourier Transform and its Applications**, 2nd edition, Revised. McGraw-Hill, New York, 1986.
- [150] Ronald Newbold Bracewell. **The Hartley Transform**. Oxford University Press, New York, 1986.
- [151] Ronald Newbold Bracewell. **Fourier Analysis and Imaging**. Plenum Publishing Corporation, 2004.
- [152] A. Brahme. Optimization of stationary and moving beam radiation therapy techniques. *Radiother. Oncol.*, 12 pp. 129–140, 1988.
- [153] Luca Brandolini, Leonardo Colzani, Alex Iosevich, and Giancarlo Travaglini. **Fourier Analysis and Convexity**. Birkhäuser Boston, 2004.
- [154] David Brandwood. **Fourier Transforms in Radar and Signal Processing**. Artech House, 2003.
- [155] H. Bray, K. McCormick, and R.O. Wells *et al.* Wavelet variations on the Shannon sampling theorem. *Biosystems*, Vol. 34(1–3), pp. 249–257, 1995.
- [156] L.M. Bregman. Finding the common point of convex sets by the method of successive projections. *Dokl. Akad. Nauk. USSR*, Vol. 162, No. 3, pp. 487–490, 1965.
- [157] P. Bremer and J.C. Hart. A sampling theorem for MLS surfaces. *Proceedings Eurographics/IEEE VGTC Symposium on Point-Based Graphics*, pp. 47–54.
- [158] Hans Bremermann. **Distributions, Complex Variables, and Fourier transforms**. Addison-Wesley, 1965.
- [159] William L. Briggs and Van Emden Henson. **The DFT: An Owners' Manual for the Discrete Fourier Transform**. Society for Industrial Mathematics, 1987.
- [160] E.O. Brigham. **The Fast Fourier Transform**. Prentice-Hall, Englewood Cliffs, NJ, 1974.
- [161] E.O. Brigham. **Fast Fourier Transform and Its Applications**. Prentice Hall, 1988.
- [162] L. Brillouin. **Science and Information Theory**. Academic Press, New York, 1962.
- [163] B.C. Brookes. Sampling theorem for finite discrete distributions. *Journal of Documentation*, Vol. 31(1), pp. 26–35, 1975.
- [164] Eli Brookner. **Practical Phased Array Antenna Systems**. Artech House Publishers, 1991.
- [165] J.L. Brown, Jr. Anharmonic approximation and bandlimited signals. *Information & Control*, Vol. 10, pp. 409–418, 1967.
- [166] J.L. Brown, Jr. On the error in reconstructing a non-bandlimited function by means of the bandpass sampling theorem. *Journal Math. Anal. Applied*, Vol. 18, pp. 75–84, 1967; Erratum, Vol. 21, p. 699, 1968.
- [167] J.L. Brown, Jr. A least upper bound for aliasing error. *IEEE Transactions Automatic Control*, Vol. AC-13, pp. 754–755, 1968.
- [168] J.L. Brown, Jr. Sampling theorem for finite energy signals. *IRE Transactions on Information Theory*, Vol. IT-14, pp. 818–819, 1968.
- [169] J.L. Brown, Jr. Bounds for truncation error in sampling expansions of bandlimited signals. *IRE Transactions Information Theory*, Vol. IT-15, pp. 669–671, 1969.
- [170] J.L. Brown, Jr. Truncation error for bandlimited random processes. *Inform. Sci.*, Vol. 1, pp. 261–272, 1969.
- [171] J.L. Brown, Jr. Uniform linear prediction of bandlimited processes from past samples. *IEEE Transactions Information Theory*, Vol. IT-18, pp. 662–664, 1972.
- [172] J.L. Brown, Jr. On mean-square aliasing error in the cardinal series expansion of random processes. *IEEE Transactions Information Theory*, Vol. IT-24, pp. 254–256, 1978.
- [173] J.L. Brown, Jr. Comments on energy processing techniques for stress wave emission signals. *Journal Acoust. Society America*, Vol. 67, p. 717, 1980.
- [174] J.L. Brown, Jr. First-order sampling of bandpass signals: a new approach. *IEEE Transactions Information Theory*, Vol. IT-26, pp. 613–615, 1980.
- [175] J.L. Brown, Jr. Sampling bandlimited periodic signals – an application of the DFT. *IEEE Transactions Education*, Vol. E-23, pp. 205–206, 1980.
- [176] J.L. Brown, Jr. A simplified approach to optimum quadrature sampling. *Journal Acoust. Society America*, Vol. 67, pp. 1659–1662, 1980.

- [177] J.L. Brown, Jr. Multi-channel sampling of low-pass signals. *IEEE Transactions Circuits & Systems*, Vol. CAS-28, pp. 101–106, 1981.
- [178] J.L. Brown, Jr. Cauchy and polar-sampling theorems. *Journal of the Optical Society America A*, Vol. 1, pp. 1054–1056, 1984.
- [179] J.L. Brown, Jr. An RKHS analysis of sampling theorems for harmonic-limited signals. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-33, pp. 437–440, 1985.
- [180] J.L. Brown, Jr. Sampling expansions for multiband signals. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-33, pp. 312–315, 1985.
- [181] J.L. Brown, Jr. On the prediction of bandlimited signal from past samples. *Proceedings IEEE*, Vol. 74, pp. 1596–1598, 1986.
- [182] J.L. Brown, Jr. and O. Morean. Robust prediction of bandlimited signals from past samples. *IEEE Transactions Information Theory*, Vol. IT-32, pp. 410–412, 1986.
- [183] J.L. Brown, Jr. Sampling reconstruction of n -dimensional bandlimited images after multilinear filtering. *IEEE Transactions Circuits & Systems*, Vol. CAS-36, pp. 1035–1038, 1989.
- [184] J.L. Brown. Summation of certain series using the Shannon sampling theorem. *IEEE Transactions on Education*, Vol. 33(4), pp. 337–340, 1990.
- [185] W.M. Brown. Fourier's integral. *Proceedings Edinburgh Math. Society*, Vol. 34, pp. 3–10, 1915–1916.
- [186] W.M. Brown. On a class of factorial series. *Proceedings London Math. Society*, Vol. 2, pp. 149–171, 1924.
- [187] W.M. Brown. Optimum prefiltering of sampled data. *IRE Transactions Information Theory*, Vol. IT-7, pp. 269–270, 1961.
- [188] W.M. Brown. Sampling with random jitter. *Journal SIAM*, Vol. 2, pp. 460–473, 1961.
- [189] N.G. de Bruijn. A theory of generalized functions, with applications to Wigner distribution and Weyl correspondence. *Nieuw Arch. Wiskunde (3)*, Vol. 21, 205–280, 1973.
- [190] O. Bryngdahl. Image formation using self-imaging techniques. *Journal of the Optical Society America*, Vol. 63, pp. 416–419, 1973.
- [191] O. Bryngdahl and F. Wyrowski. Digital holography. Computer generated holograms. In **newblock Progress in Optics**, North-Holland, Amsterdam, pp. 1–86, 1990.
- [192] G.J. Buck and J.J. Gustincic. Resolution limitations of a finite aperture. *IEEE Transactions Antennas & Propagation*, Vol. AP-15, pp. 376–381, 1967.
- [193] Aram Budak. **Passive and Active Network Analysis and Synthesis**. Waveland Press, 1991.
- [194] Y.G. Bulychev and I.V. Burlai. Repeated differentiation of finite functions with the use of the sampling theorem in problems of control, estimation, and identification. *Automation and Remote Control*, Vol. 57(4), Part 1, pp. 499–509, 1996.
- [195] J. Bures, P. Meyer, and G. Fernandez. Reconstitution d'un profil d'éclairément échantillonné par une legne de microphotodiodes. *Optical Communication*, pp. 39–44, 1979.
- [196] Tilman Butz. **Fourier Transformation for Pedestrians (Fourier Series)**. Springer, 2005.
- [197] P.L. Butzer. A survey of the Whittaker-Shannon sampling theorem and some of its extensions. *Journal Math. Res. Exposition*, Vol. 3, pp. 185–212, 1983.
- [198] P.L. Butzer. The Shannon sampling theorem and some of its generalizations. An Overview. in *Constructive Function Theory, Proceedings Conf. Varna, Bulgaria, June 1–5, 1981*; Bl. Sendov *et al.*, eds., Publishing House Bulgarian Academy of Science., Sofia, pp. 258–274, 1983.
- [199] P.L. Butzer. Some recent applications of functional analysis to approximation theory. (Proc. Euler Colloquium Berlin, May 1983; Eds: E. Knobloch *et al.*). In: *Zum Werk Leonhard Eulers*. Birkhäuser, Basel, pp. 133–155, 1984.
- [200] P.L. Butzer and W. Engels. Dyadic calculus and sampling theorems for functions with multidimensional domain, I. General theory. *Information & Control*, Vol. 52, pp. 333–351, 1982.
- [201] P.L. Butzer and W. Engels. Dyadic calculus and sampling theorems for functions with multidimensional domain, II. Applications to dyadic sampling representations. *Information & Control*, Vol. 52, pp. 352–363, 1982.
- [202] P.L. Butzer and W. Engels. On the implementation of the Shannon sampling series for bandlimited signals. *IEEE Transactions Information Theory*, Vol. IT-29, pp. 314–318, 1983.

- [203] P.L. Butzer, W. Engels, S. Ries, and R.L. Stens. The Shannon sampling series and the reconstruction of signals in terms of linear, quadratic and cubic splines. *SIAM J. Applied Math.*, Vol. 46, pp. 299–323, 1986.
- [204] P.L. Butzer, W. Engels, and U. Scheben. Magnitude of the truncation error in sampling expansions of bandlimited signals. *IEEE Transactions Acoust., Speech, Signal Processing*. ASSP-30, pp. 906–912, 1982.
- [205] P.L. Butzer and G. Hinsen. Reconstruction of bounded signals from pseudo-periodic irregularly spaced samples. *Signal Processing*, Vol. 17, pp. 1–17, 1988.
- [206] P.L. Butzer and G. Hinsen. Two-dimensional nonuniform sampling expansions – an iterative approach I, II. *Applied Anal.*, Vol. 32, pp. 53–85, 1989.
- [207] P.L. Butzer and C. Markett. The Poisson summation formula for orthogonal systems. In *Anniversary Volume on Approximation Theory and Functional Analysis (Proceedings Conf. Math. Res. Institute Oberwolfach, Black Forest; Eds. Butzer, Stens, Nagy) Birkhäuser Verlag Basel - Stuttgart - Boston*, = ISNM Vol. 65, pp. 595–601, 1984.
- [208] P.L. Butzer and R.J. Nessel. Contributions to the theory of saturation for singular integrals in several variables I. General theory. *Nederland Akad. Wetensch. Proceedings Ser. A*, Vol. 69 and *Indag. Math.*, Vol. 28, pp. 515–531, 1966.
- [209] P.L. Butzer and R.J. Nessel. **Fourier Analysis and Approximation Vol. I: One-Dimensional Theory**. Birkhäuser Verlag, Basel, Academic Press, New York, 1971.
- [210] P.L. Butzer, S. Ries, and R.L. Stens. The Whittaker-Shannon sampling theorem, related theorems and extensions; a survey. In *Proceedings JIEEEC '83 (Proceedings Jordan - International Electrical and Electronic Engineering Conference, Amman, Jordan)*, pp. 50–56, 1983.
- [211] P.L. Butzer, S. Ries, and R.L. Stens. Shannon's sampling theorem, Cauchy's integral formula and related results. In *Anniversary Volume on Approximation Theory and Functional Analysis (Proceedings Conf. Math. Res. Institute Oberwolfach, Black Forest) Eds. Butzer Stens, and Nagy Basel - Stuttgart - Boston: Birkhäuser Verlag = ISNM Vol. 65*, pp. 363–377, 1984.
- [212] P.L. Butzer, S. Ries, and R.L. Stens. Approximation of continuous and discontinuous functions by generalized sampling series. *Journal Approx. Theory*, Vol. 50, pp. 25–39, 1987.
- [213] P.L. Butzer, M. Schmidt, E.L. Stark, and L. Vogt. Central factorial numbers; their main properties and some applications. *Num. Funct. Anal. Optim.* Vol. 10, pp. 419–488, 1989.
- [214] P.L. Butzer and M. Schmidt. Central factorial numbers and their role in finite difference calculus and approximation. *Proceedings Conf. on Approximation Theory, Kecskemét, Hungary. Colloquia Mathematica Societatis János Bolyai*, 1990.
- [215] P.L. Butzer and W. Splettstößer. *Approximation und Interpolation durch verallgemeinerte Abtastsummen. Forschungsberichte* No. 2515, Landes Nordrhein-Westfalen, Köln-Opladen, 1977.
- [216] P.L. Butzer and W. Splettstößer. A sampling theorem for duration-limited functions with error estimates. *Information & Control*, Vol. 34, pp. 55–65, 1977.
- [217] P.L. Butzer and W. Splettstößer. Sampling principle for duration-limited signals and dyadic Walsh analysis. *Inform. Sci.*, Vol. 14, pp. 93–106, 1978.
- [218] P.L. Butzer and W. Splettstößer. On quantization, truncation and jitter errors in the sampling theorem and its generalizations. **Signal Processing**, Vol. 2, pp. 101–102, 1980.
- [219] P.L. Butzer, W. Splettstößer, and R.L. Stens. The sampling theorem and linear prediction in signal analysis. *Jahresber. Deutsch Math.-Verein.* Vol. 90, pp. 1–70, 1988.
- [220] P.L. Butzer and R.L. Stens. *Index of Papers on Signal Theory: 1972–1989*. Lehrstuhl A für Mathematik, Aachen University of Technology, Aachen, Germany, 1990.
- [221] P.L. Butzer and R.L. Stens. The Euler-Maclaurin summation formula, the sampling theorem, and approximate integration over the real axis. **Linear Algebra Applications**, Vol. 52/53, pp. 141–155, 1983.
- [222] P.L. Butzer and R.L. Stens. The Poisson summation formula, Whittaker's cardinal series and approximate integration. In *Proceedings Second Edmonton Conference on Approximation Theory (Eds., Z. Ditzian, et al.) American Math. Society Providence, Rhode Island: = Canadian Math Society Proceedings*, Vol. 3, pp. 19–36, 1983.

- [223] P.L. Butzer and R.L. Stens. A modification of the Whittaker-Kotelnikov-Shannon sampling series. *Aequationes Math.*, Vol. 28, pp. 305–311, 1985.
- [224] P.L. Butzer and R.L. Stens. Prediction of non-bandlimited signals from past samples in terms of splines of low degree. *Math. Nachr.*, Vol. 132, pp. 115–130, 1987.
- [225] P.L. Butzer and R.L. Stens. Linear prediction in terms of samples from the past; an overview. In **Numerical Methods and Approximation Theory III** (*Proceedings Conf. on Numerical Methods and Approximation Theory*), Nis 18.–21.8.1987; Ed. G.V. Milovanovic, Faculty of Electronic Engineering, University of Nis, Yugoslavia, 1988, pp. 1–22.
- [226] P.L. Butzer and R.L. Stens. Sampling theory for not necessarily bandlimited functions; an historical overview. *SIAM Review*, Vol. 34, pp. 40–53, 1992.
- [227] P.L. Butzer, R.L. Stens, and M. Wehrens. The continuous Legendre transform, its inverse transform and applications. *International J. Math. Sci.*, Vol. 3, pp. 47–67, 1980.
- [228] P.L. Butzer and H.J. Wagner. Walsh-Fourier series and the concept of a derivative. **Applicable Analysis**, Vol. 3, pp. 29–46, 1973.
- [229] P.L. Butzer and H.J. Wagner. On dyadic analysis based on the pointwise dyadic derivative. *Analysis Math.*, Vol. 1, pp. 171–196, 1975.
- [230] P.L. Butzer, J.R. Higgins, and R.L. Stens. Classical and approximate sampling theorems; studies in the L-P(R) and the uniform norm. *Journal of Approximation Theory*, Vol. 137(2), pp. 250–263, 2005.
- [231] A. Buzo, A.H. Gray Jr., R.M. Gray, and J.D. Markel. Speech coding based upon vector quantization. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-28, pp. 562–574, 1980.
- [232] A. Buzo, F. Kuhlmann, and C. Blas. Rate distortion bounds for quotient-based distortions with applications to Itakura-Saito distortion measures. *IEEE Transactions Inform. Theory*, Vol. IT-32, pp. 141–147, 1986.
- [233] William E. Byerly. **An Elementary Treatise on Fourier's Series and Spherical, Cylindrical, and Ellipsoidal Harmonics**. Ginn & Co, Boston, 1933.

C

- [234] J. Cadzow. An extrapolation procedure for bandlimited signals. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-27, pp. 4–12, 1979.
- [235] D. Cahana and H. Stark. Bandlimited image extrapolation with faster convergence. *Applied Optics*, pp. 2780–2786, 1981.
- [236] G. Calvagio and D. Munson, Jr. New results on Yen's approach to interpolation from nonuniformly spaced samples. *Proceedings IASSP*, pp. 1533–1538, 1990.
- [237] S. Cambanis and M.K. Habib. Finite sampling approximation for non-bandlimited signals. *IEEE Transactions Information Theory*, Vol. IT-28, pp. 67–73, 1982.
- [238] S. Cambanis and E. Masry. Truncation error bounds for the cardinal sampling expansion of bandlimited signals. *IEEE Transactions Information Theory*, Vol. IT-28, pp. 605–612, 1982.
- [239] L.L. Campbell. A comparison of the sampling theorems of Kramer and Whittaker. *Journal SIAM*, Vol. 12, pp. 117–130, 1964.
- [240] L.L. Campbell. Sampling theorem for the Fourier transform of a distribution with bounded support. *SIAM J. Applied Math.*, Vol. 16, pp. 626–636, 1968.
- [241] L.L. Campbell. Further results on a series representation related to the sampling theorem. *Signal Processing*, Vol. 9, pp. 225–231, 1985.
- [242] C. Candan, M.A. Kutay, and H.M. Ozaktas. The discrete fractional Fourier transform. *IEEE Transactions on Signal Processing*, Vol. 48(5), pp. 1329–1337, 2000.
- [243] K.G. Canfield, and D.L. Jones. Implementing time-frequency representations for non-Cohen classes. 1993 Conference Record of The Twenty-Seventh Asilomar Conference on Signals, Systems and Computers, Vol. 2, pp. 1464–1468, 1993.
- [244] George Cantor and Philip E.B. Jourdain. **Contributions to the Founding of the Theory of Transfinite Numbers**. Cosimo Classics, 2007.

- [245] Gianfranco Cariolaro, Tomaso Erseghe, Peter Kraniuskas, and Nicola Laurenti. Multiplicity of Fractional Fourier Transforms and their Relationships. *IEEE Transactions on Signal Processing*, Vol. 48(1), pp. 227–241, 2000.
- [246] A.B. Carlson. *Communications Systems, An Introduction to Signals and Noise in Electrical Communication*, 2nd Ed. McGraw-Hill, New York, 1975.
- [247] H.S. Carslaw. **Introduction to the Theory of Fourier's Series and Integrals**. Michigan Historical Reprint Series. Scholarly Publishing Office, University of Michigan, 2005.
- [248] W.H. Carter and E. Wolf. Coherence and radiometry with quasihomogeneous sources. *Journal of the Optical Society America Vol. 67*, pp. 785–796, 1977.
- [249] D. Casasent. Optical signal processing. In **Optical Data Processing**, D. Casasent, editor, Springer-Verlag, Berlin, pp. 241–282, 1978.
- [250] Manuel F. Catedra, Rafael F. Torres, Emilio Gago, and Jose Basterrechea. **CG-FFT Method: Application of Signal Processing Techniques to Electromagnetics**. Artech House, 1994.
- [251] W.T. Cathey, B.R. Frieden, W.T. Rhodes, and C.K. Rushforth. Image gathering and processing for enhanced resolution. *Journal of the Optical Society America A*, pp. 241–250, 1984.
- [252] A.L. Cauchy. Memoire sur diverses formules d'analyse, *Comptes Rendus*, Vol. 12, pp. 283–298, 1841.
- [253] H.J. Caulfield. Wavefront sampling in holography. *Proceedings IEEE*, Vol. 57, pp. 2082–2083, 1969.
- [254] H.J. Caulfield. Correction of image distortion arising from nonuniform sampling. *Proceedings IEEE*, Vol. 58, p. 319, 1970.
- [255] G. Cesini, P. Di Filippo, G. Lucarini, G. Guattari, and P. Pierpaoli. The use of charge-coupled devices for automatic processing of interferograms. *Journal of the Optical*, pp. 99–103, 1981.
- [256] G. Cesini, G. Guattari, G. Lucarini, and C. Palma. An iterative method for restoring noisy images. *Opt. Acta*, pp. 501–508, 1978.
- [257] A.E. Cetin, H. Ozaktus, and H.M. Ozaktus. Signal recovery from partial fractional Fourier transform information. First International Symposium on Control, Communications and Signal Processing, pp. 217–220, 2004.
- [258] J. Cezanne and A. Papoulis. The use of modulated splines for the reconstruction of bandlimited signals. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP–36, No. 9, pp. 1521–1525, 1988.
- [259] K. Chalasinkamacukow, H.H. Arsenault. Solution to the phase-retrieval problem using the sampling theorem. *Journal of the Optical Society of America*, Vol. 73(12), pp. 1875–1875, 1983.
- [260] K. Chalasinska-Macukow and H.H. Arsenault. Fast iterative solution to exact equations for the two-dimensional phase-retrieval problem. *Journal of the Optical Society America A*, Vol. 2, pp. 46–50, 1985.
- [261] D.C. Champeney. **Fourier Transforms and their Physical Applications**. Academic Press, 1973.
- [262] D.C. Champeney. **Fourier Transforms in Physics**. Taylor & Francis, 1985.
- [263] C. Chamzas and Wen Xu. An improved version of Papoulis-Gerchberg algorithm on band-limited extrapolation. *IEEE Transactions on Acoustics, Speech, and Signal Processing*, Vol. 32(2), pp. 437–440, 1984.
- [264] S.S. Chang. Optimum transmission of a continuous signal over a sampled data link. *AIEE Transactions*, Vol. 79, Pt. II (Applications and Industry), pp. 538–542, 1961.
- [265] I.J. Chant and L.M. Hastie, A comparison of the stability of stationary and nonstationary magnetotelluric analysis methods. *International Geophysical Journal*, Vol. 115(3), pp. 1143–1147, 1993.
- [266] J.I. Chargin and V.P. Iakovlev. **Finite Functions in Physics and Technology**. Nauka, Moscow, 1971.
- [267] D.B. Chase and J.F. Rabolt. **Fourier Transform Raman Spectroscopy: From Concept to Experiment**. Academic 1994.
- [268] P. Chavel and S. Lowenthal. Noise and coherence in optical image processing. I. The Callier effect and its influence on image contrast. *Journal of the Optical Society America*, Vol. 68, pp. 559–568, 1978.

- [269] P. Chavel and S. Lowenthal. Noise and coherence in optical image processing. II. Noise fluctuations. *Journal of the Optical Society America*, Vol. 68, pp. 721–732, 1978.
- [270] Chang-Kann Chen and Ju-Hong Lee. McClellan transform based design techniques for two-dimensional linear-phase FIR filters. *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications*, Vol. 41(8), pp. 505–517, 1994.
- [271] D. Chen, L.G. Durand and Z. Guo. Time-frequency analysis of the first heart sound. Part 2: An appropriate time-frequency representation technique. *Medical & Biological Engineering & Computing*. Vol. 35(4), pp. 311–317, 1997.
- [272] D. Chen, L.G. Durand *et al.* Time-frequency analysis of the first heart sound: Part 3: Application to dogs with varying cardiac contractility and to patients with mitral mechanical prosthetic heart valves. *Medical & Biological Engineering & Computing*. Vol. 35(5), pp. 455–461, 1997.
- [273] D. Chen, L.G. Durand *et al.* Time-frequency analysis of the muscle sound of the human diaphragm. *Medical & Biological Engineering & Computing*. Vol. 35(6), pp. 649–652, 1997.
- [274] D.S. Chen and J.P. Allebach. Analysis of error in reconstruction of two-dimensional signals from irregularly spaced samples. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-35, pp. 173–179, 1987.
- [275] F.R. Chen, H. Ichinose and J.J. Kai *et al.* Extension of HRTEM resolution by semi-blind deconvolution method and Gerchberg-Saxton algorithm: application to grain boundary and interface. *Journal of Electron Microscopy*, Vol. 50(6), pp. 529–540, 2001.
- [276] G.X. Chen and Z.R. Zhou. Time-frequency analysis of friction-induced vibration under reciprocating sliding conditions. *Digital signal processing*. Vol. 17(1), pp. 371–393, 2007.
- [277] Hong Chen and G.E. Ford. A unified eigenfilter approach to the design of two-dimensional zero-phase FIR filters with the McClellan transform. *IEEE Transactions on Circuits and Systems II: Analog and Digital Signal Processing*, Vol. 43(8), pp. 622–626, 1996.
- [278] K.H. Chen and C.C. Yang. On n -dimensional sampling theorems. *Applied Math. Comput.*, Vol. 7, pp. 247–252, 1980.
- [279] W. Chen and S. Itoh. A sampling theorem for shift-invariant subspace. *IEEE Transactions on Signal Processing*, Vol. 46(10), pp. 2822–2824, 1998.
- [280] D.K. Cheng and D.L. Johnson. Walsh transform of sampled time functions and the sampling principle. *Proceedings IEEE*, Vol. 61, pp. 674–675, 1973.
- [281] Jingdong Chen, Bo Xu, and Taiyi Huang. New features based on the Cohen’s class of bilinear time-frequency representations for speech recognition. *Proceedings 1998 Fourth International Conference on Signal Processing*, 1998. ICSP ’98. Vol. 1, pp. 674–677, 1998.
- [282] Victor C. Chen and Hao Ling. **Time-Frequency Transforms for Radar Imaging and Signal Analysis**. Artech House Publishers, 2002.
- [283] K.F. Cheung. The Generalized Sampling Expansion – Its Stability, Posedness and Discrete Equivalent. M.S. thesis, Dept. Electrical Engr., Univ. of Washington, Seattle, Washington, 1983.
- [284] K.F. Cheung. Image Sampling Density Reduction Below That of Nyquist. Ph.D. thesis, University of Washington, Seattle, 1988.
- [285] K.F. Cheung and R.J. Marks II. Ill-posed sampling theorems. *IEEE Transactions on Circuits and Systems*, Vol. CAS-32, pp. 829–835, 1985.
- [286] K.F. Cheung, R.J. Marks II, and L.E. Atlas. Neural net associative memories based on convex set projections, *IEEE Proceedings 1st International Conference on Neural Networks, San Diego*, June 1987.
- [287] K.F. Cheung and R.J. Marks II. Papoulis’ generalization of the sampling theorem in higher dimensions and its application to sample density reduction. In *Proceedings of the International Conference on Circuits and Systems, Nanjing, China*, 1989.
- [288] K.F. Cheung and R.J. Marks II. Image sampling below the Nyquist density without aliasing. *Journal of the Optical Society America A*, Vol. 7, pp. 92–105, 1990.
- [289] K.F. Cheung, R.J. Marks II, and L.E. Atlas. Convergence of Howard’s minimum-negativity-constraint extrapolation algorithm. *Journal of the Optical Society America A*, Vol. 5, pp. 2008–2009, 1988.
- [290] R. Cheung and Y. Rahmat-Samii. Experimental verification of nonuniform sampling technique for antenna far-field construction. *Electromagnetics*, Vol. 6, No. 4, pp. 277–300, 1986.

- [291] Francois Le Chevalier. **Principles of Radar and Sonar Signal Processing**. Artech House Publishers, 2002.
- [292] T.A.C.M. Claasen and W.F.G. Mecklenbrauker. The Wigner distribution, a tool for time-frequency signal analysis, Part 2: discrete time signals. *Philips J. Res.*, Vol. 35, pp. 277–300, 1980.
- [293] T.A.C.M. Claasen and W.F.G. Mecklenbrauker. The Wigner distribution, a tool for time-frequency signal analysis, Part 3: relations with other time-frequency signal transformations. *Philips J. Res.*, Vol. 35, pp. 373–389, 1980.
- [294] D.G. Childers. Study and experimental investigation on sampling rate and aliasing in time-division telemetry systems. *IRE Transactions Space Electronics & Telemetry*, pp. 267–283, 1962.
- [295] H.K. Ching. Truncation Effects in the Estimation of Two-Dimensional Continuous Bandlimited Signals. M.S. thesis, Dept. Electrical Engineering, Univ. of Washington, Seattle, 1985.
- [296] P.C. Ching and S.Q. Wu. On approximated sampling theorem and wavelet denoising for arbitrary waveform restoration. *IEEE Transactions on Circuits and Systems II - Analog and Digital Signal Processing*, Vol. 45(8), pp. 1102–1106, 1998.
- [297] P.S. Cho, H.G. Kuterdem, and R.J. Marks II, “A spherical dose model for radiosurgery plan optimization”, *Phys. Med. Biol.*, Vol. 43, pp. 3145–3148, 1998.
- [298] P.S. Cho, Shinhak Lee, R.J. Marks II, Seho Oh, S.G. Sutlief, and M.H. Phillips. Optimization of intensity modulated beams with volume constraints using two methods: cost function minimization and projections onto convex sets. *Medical Physics*. Vol. 25(4), pp. 435–443, 1998.
- [299] H.I. Choi and W.J. Williams. Improved time-frequency representation of multi-component signals using exponential kernels. *IEEE Transactions Acoust., Speech, and Sig. Proceedings*, Vol. 37, pp. 862–871, 1989.
- [300] Li Chongrong and Li Yanda. Recovery of acoustic impedance by POCS technique. *1991 International Conference on Circuits and Systems, 1991. Conference Proceedings, China.*, Vol. 2, pp. 820–823, 1991.
- [301] J.J. Chou and L.A. Piegl. Data reduction using cubic rational B-splines. *IEEE Computer Graphics and Applications Magazine*, Vol. 12(3), pp. 60–68, 1992.
- [302] J. Chung, S.Y. Chung, and D. Kim. Sampling theorem for entire functions of exponential growth. *Journal of Mathematical Analysis and Applications*, Vol. 265(1), pp. 217–228, 2002.
- [303] Ruel V. Churchill. **Fourier Series and Boundary Value Problems**. McGraw-Hill. 2Rev Ed edition, 1963.
- [304] Ruel V. Churchill. **Operational Mathematics**. McGraw-Hill, New York, 1972.
- [305] T.A.C.M. Claasen and W.F.G. Mecklenbräuker. The Wigner distribution - a tool for time-frequency signal analysis. Part I: Continuous-time signals; Part II: Discrete-time signals; Part III: Relations with other time-frequency signal transformations. *Philips J. Res.*, Vol. 35, pp. 217–250, 276–300, 372–389, 1980.
- [306] J.J. Clark. Sampling and reconstruction of non-bandlimited signals. In *Proceedings Visual Communication and Image Processing IV, SPIE*, Vol. 1199, pp. 1556–1562, 1989.
- [307] J.J. Clark, M.R. Palmer, and P.D. Lawrence. A transformation method for the reconstruction of functions from nonuniformly spaced samples. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-33, 1985.
- [308] D. Cochran and J. Clark. On the sampling and reconstruction of time-warped bandlimited signals. *Proceedings IASSP*, pp. 1539–1541, 1990.
- [309] L. Cohen. Generalized phase-space distribution functions. *Journal Math. Phys.*, Vol. 7, pp. 781–786, 1966.
- [310] L. Cohen. Time-frequency distributions - A review. *Proceedings IEEE*, Vol. 77, pp. 941–961, 1989.
- [311] D.D. Colclough and E.L. Titlebaum. Delay-Doppler POCS for specular multipath. *Proceedings IEEE International Conference on Acoustics, Speech, and Signal Processing, 2000*, Vol. 4, pp. IV-3940–IV-3943, 2002.
- [312] L. Cohen. **Time Frequency Analysis: Theory and Applications**. Prentice-Hall Signal Processing, 1994.

- [313] T.W. Cole. Reconstruction of the image of a confined source. *Astronomy and Astrophysics*, pp. 41–45, 1973.
- [314] T.W. Cole. Quasi-optical techniques in radio astronomy, In **Progress in Optics**, North-Holland, Amsterdam, 1977, pp. 187–244.
- [315] Samuel Taylor Coleridge and Barbara E. Rooke. **The Collected Works of Samuel Taylor Coleridge, Volume 4: “The Friend” by Samuel Taylor Coleridge and Barbara E. Rooke**. Princeton University Press, 1969.
- [316] P.M. Colman. Non-Crystallographic symmetry and Sampling Theory. *Zeitschrift für Kristallographie, Vol. 140(5–6)*, pp. 344–349, 1974.
- [317] R.J. Collier, C.B. Burckhardt, and L.H. Lin. **Optical Holography**. Academic Press, Orlando, FL., 1971.
- [318] J.M. Combes, A. Grossman, and Ph. Tchamitchian, **Wavelets**, Springer-Verlag, 1989.
- [319] P.L. Combettes. The foundation of set theoretic estimation. *Proceedings of the IEEE, Vol. 81*, pp. 182–208, 1993.
- [320] P.L. Combettes. Signal recovery by best feasible approximation. *IEEE Transactions on Image Processing, Vol. 2(2)*, pp. 269–271, 1993.
- [321] P.L. Combettes. Convex set theoretic image recovery by extrapolated iterations of parallel subgradient projections. *IEEE Transactions on Image Processing, Vol. 6(4)*, pp. 493–506, 1997.
- [322] J.W. Cooley and J.W. Tukey. An algorithm for the machine calculation of complex Fourier series. *Mathematics of Computation, Vol. 19(90)*, pp. 297–301, 1965.
- [323] J.W. Cooley, P.A.W. Lewis, and P.D. Welch. Historical notes on the fast Fourier transform. *IEEE Transactions on Audio Electroacoustics, Vol. AU-15(2)*, pp. 76–79, 1967.
- [324] A. Consortini and F. Crochetti. An attempt to remove noise from histograms of probability density of irradiance in atmospheric scintillation. *Proceedings SPIE*, pp. 524–525, 1990.
- [325] J.W. Cooley, P.A.W. Lewis, and P.D. Welch. The finite Fourier transform. *IEEE Transactions Audio Electroacoustics, Vol. AE-17*, pp. 77–85, 1969.
- [326] J.W. Cooley and J.W. Tukey. An algorithm for the machine calculations of complex Fourier series. *Math. Comput., Vol. 19*, pp. 297–301, 1965.
- [327] W.A. Coppel. *et al.* Fourier - on the occasion of his two hundredth birthday. *Amer. Math. Monthly, Vol. 76*, pp. 468–483, 1969.
- [328] Joshua Corey. **Fourier Series**. Spineless Books, 2005.
- [329] I.J. Cox, C.J.R. Sheppard, and T. Wilson. Reappraisal of arrays of concentric annuli as super-resolving filters. *Journal of the Optical Society America, Vol. 72*, pp. 1287–1291, 1982.
- [330] Edward J. Craig. **Laplace and Fourier Transforms for Electrical Engineers**. Holt, Rinehart and Winston, 1964.
- [331] William Lane Craig. **Time and Eternity: Exploring God’s Relationship to Time**. Crossway Books, 2001.
- [332] P.W. Cramer and W.A. Imbriale. Speed-up of near-field physical optics scattering calculations by use of the sampling theorem. *IEEE Transactions on Magnetics, Vol. 30(5)*, Part 2, pp. 3156–3159, 1994.
- [333] R.E. Crochiere and L.R. Rabiner. Interpolation and decimation of digital signals – a tutorial review. *Proceedings IEEE, Vol. 69*, pp. 300–331, 1981.
- [334] R.E. Crochiere and L.R. Rabiner. **Multirate Digital Signal Processing**. Prentice-Hall, Englewood Cliffs, NJ, 1983.
- [335] H.Z. Cummins and E.R. Pike, editors. **Photon Correlation Spectroscopy and Velocimetry**. Plenum Press, New York, 1977.
- [336] L.J. Cutrona, E.N. Leith, C.J. Palermo, and L.J. Porcello. Optical data processing and filtering systems. *IRE Transactions Information Theory*, pp. 386–400, 1960.
- [337] B.S. Cybakov and V.P. Jakovlev. On the accuracy of restoring a function with a finite number of terms of a Kotelnikov series. *Radio Engineering & Electron., Vol. 4*, pp. 274–275, 1959.
- [338] R.N. Czerwinski and D.L. Jones. An adaptive time-frequency representation using a cone-shaped kernel. *1993 IEEE International Conference on Acoustics, Speech, and Signal Processing, 1993. ICASSP-93., Vol. 4*, pp. 404–407 1993.

- [339] R.N. Czerwinski and D.L. Jones. Adaptive cone-kernel time-frequency analysis. *IEEE Transactions on Signal Processing*, Vol. 43(7), pp. 1715–1719, 1995.
- D**
- [340] J.J. DaCunha. Stability for time varying linear dynamic systems on time scales. *Journal of Computational and Applied Mathematics*, Vol. 176(2), pp. 381–410, 2005.
- [341] J.J. DaCunha. Instability results for slowly time varying linear dynamic systems on time scales. *Journal of Mathematical Analysis and Applications*, Vol. 328(2), pp. 1278–1289, 2007.
- [342] M.I. Dadi and R.J. Marks II. Detector relative efficiencies in the presence of Laplace noise. *IEEE Transactions on Aerospace and Electronic Systems*, Vol. AES-23(4), 1987.
- [343] W. Dahmen and C.A. Micchelli. Translates of multivariate splines. *Linear Algebra Applications*, Vol. 52/53, pp. 217–234, 1983.
- [344] H. Dammann and K. Görtker. High-efficiency in-line multiple imaging by means of multiple and filtering systems. *Optical Communication*, pp. 312–315, 1971.
- [345] R. Dandliker, E. Marom, and F.M. Mottier. Wavefront sampling in holographic interferometry. *Optical Communication*, pp. 368–371, 1972.
- [346] H. D'Angelo. **Linear Time Varying Systems, Analysis and Synthesis**. Allyn and Bacon, Boston, 1970.
- [347] I. Daubechies. The wavelet transform, time-frequency localization and signal analysis. *IEEE Transactions Inform. Theory IT-36*, pp. 961–1005, 1990.
- [348] Joseph W. Dauben. Georg Cantor and Pope Leo XIII: Mathematics, Theology, and the Infinite. *Journal of the History of Ideas*, Vol. 38(1), pp. 85–108, 1977.
- [349] Q.I. Daudpota, G. Dowrick, and C.A. Grwated. Estimation of moments of a Poisson sampled random process. *Journal Phys. A: Math. Gen.*, Vol. 10, pp. 471–483, 1977.
- [350] A.M. Davis. Almost periodic extension of bandlimited functions and its application to nonuniform sampling. *IEEE Transactions Circuits & Systems*, Vol. CAS-33(10), pp. 933–938, 1986.
- [351] J.A. Davis, E.A. Merrill, D.M. Cottrell, and R.M. Bunch. Effects of sampling and binarization in the output of the joint Fourier transform correlator. *Optical Engineering*, Vol. 29(9), pp. 1094–1100, 1990.
- [352] John M. Davis, Ian A. Gravagne, Billy J. Jackson, Robert J. Marks II, and Alice A. Ramos. The Laplace transform on time scales revisited. *Journal of Mathematical Analysis Applications*, Vol. 332, pp. 1291–1307, 2007.
- [353] P.J. Davis. **Interpolation and Approximation**. Blaisdell, New York, 1963.
- [354] P. Davis and R. Hersh. **The Mathematical Experience**, Boston: Birkhäuser, 1981.
- [355] Sumner P. Davis, Mark C. Abrams, and James W. Brault. **Fourier Transform Spectrometry**. Academic Press, 2001.
- [356] C. de Boor. On calculating with B-splines. *Journal Approx. Theory*, Vol. 6, pp. 50–62, 1972.
- [357] C. de Boor. **A Practical Guide to Splines**. Springer-Verlag, New York, 1978.
- [358] L.S. DeBrunner, V. DeBrunner, and Yao Minghua Yao. Edge-retaining asymptotic projections onto convex sets for image interpolation. *Proceedings of the 4th IEEE Southwest Symposium Image Analysis and Interpretation*, 2000. pp. 78–82, 2000.
- [359] G. Defrancis. Directivity, super-gain and information. *IRE Transactions Antennas & Propagation*, Vol. AP-4, pp. 473–478, 1956.
- [360] P. Delsarte and Y. Gemin. The split Levinson algorithm. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-34, pp. 470–478, 1986.
- [361] P. Delsarte and Y. Genin. On the role of orthogonal polynomials on the unit circle in digital signal processing applications. In **Orthogonal Polynomials: Theory and Practice** (ed. by P. Nevai and E. H. Ismail), Kluwer Academic Publishers, Dordrecht, pp. 115–133, 1990.
- [362] Juan Arias de Reyna. **Pointwise Convergence of Fourier Series**. Springer, 2002.
- [363] Michael B. Marcus and Gilles Pisier. **Random Fourier Series with Applications to Harmonic Analysis**. Annals of Mathematics Studies, Princeton University Press, 1981.
- [364] A. Desabata. Extension of a Finite Version of the Sampling Theorem. *IEEE Transactions on Circuits and Systems II- Analog and Digital Signal Processing*, Vol. 41(12), pp. 821–823, 1994.

- [365] Rene Descartes, **Discours de la Methode**. 1637.
- [366] P. DeSantis, G. Guattari, F. Gori, and C. Palma. Optical systems with feedback. *Opt. Acta*, pp. 505–518, 1976.
- [367] P. DeSantis and F. Gori. On an iterative method for super-resolution. *Opt. Acta*, pp. 691–695, 1975.
- [368] P. DeSantis, F. Gori, G. Guattari, and C. Palma. Emulation of super-resolving pupils through image postprocessing. *Optical Communication*, pp. 13–16, 1986.
- [369] P. DeSantis, F. Gori, G. Guattari, and C. Palma. Synthesis of partially coherent fields. *Journal of the Optical Society America*, Vol. 76, pp. 1258–1262, 1986.
- [370] P. DeSantis and C. Palma. Degrees of freedom of aberrated images. *Opt. Acta*, pp. 743–752, 1976.
- [371] A.J. Devaney and R. Chidlaw. On the uniqueness question in the problem of phase retrieval from intensity measurements. *Opt. Acta*, pp. 1352–1354, 1978.
- [372] P. DeVincenti, G. Doro, and A. Saitto. Reconstruction of bi-dimensional electromagnetic field by uni-dimensional sampling technique. *Electron. Letters*, Vol. 17, pp. 324–325, 1981.
- [373] G.M. Dillard. Method and apparatus for computing the discrete Fourier transform recursively. United States Patent #4,023,028, 1977.
- [374] G.M. Dillard. Recursive computation of the DFT with applications to a pulse-doppler radar system. *Comput. and Elec. Engng.*, Vol. 1(1), pp. 143–152, 1973.
- [375] G.M. Dillard. Recursive computation of the discrete Fourier transform with applications to an FSK communications receiver. *IEEE National Telecommunication Conference*, San Diego, pp. 263–265, 1974.
- [376] Paul Adrien Maurice Dirac, *Scientific American*, 1963.
- [377] V.A. Ditkin and A.P. Prudnikov. **Integral Transforms and Operation Calculus**, Fitmatgiz, Moscow, 1961: English translation, Pergamon Press, New York, 1965.
- [378] D.D. Do and R.H. Weiland. Self-poissoning of catalyst pellets. *AIChE Symp. Series*, Vol. 77(202), pp. 36–45, 1981.
- [379] M.M. Dodson and A.M. Silva. Fourier analysis and the sampling theorem. *Proceedings Royal Irish Academy*, Vol. 85 A, pp. 81–108, 1985.
- [380] A.H. Dooley. A non-abelian version of the shannon sampling theorem. *SIAM Journal on Mathematical Analysis*, Vol. 20(3), pp. 624–633, 1989.
- [381] R.C. Dorf, M.C. Farren, and C.A. Philips. Adaptive sampling frequency for sampled data control systems. *IRE Transactions Automatic Control*, Vol. AC-7, pp. 38–47, 1962.
- [382] C.N. dos Santos, S.L. Netto, L.W.R. Biscainho, and D.B. Graziosi. A modified constant-Q transform for audio signals. *Proceedings IEEE International Conference on Acoustics, Speech, and Signal Processing, 2004. (ICASSP '04)*. Vol. 2, pp. 469–472, 2004.
- [383] F. Dowlia and J.H. McClellan. MEM spectral analysis for nonuniformly sampled signals. In *Proceedings of the 2nd International Conference on Computer Aided Seismic Analysis and Discrimination*, North Dartmouth, Mass., 1981.
- [384] James F. Doyle. **Wave Propagation in Structures: Spectral Analysis Using Fast Discrete Fourier Transforms**. Springer, 2nd edition, 1997.
- [385] E. Dubois. The sampling and reconstruction of time-varying imagery with application in video systems. *Proceedings IEEE*, Vol. 23, pp. 502–522, 1985.
- [386] Javier Duoandikoetxea and David Cruz-Urbe. **Fourier Analysis**. American Mathematical Society, 2000.
- [387] D.E. Dudgeon and R.M. Mersereau. **Multidimensional Digital Signal Processing**. Prentice-Hall, Englewood Cliffs, NJ, 1984.
- [388] P.M. Duffieux. **L'integral de Fourier et ses applications a l'optique**. Rennes-Oberthur, 1946.
- [389] R.J. Duffin and A.C. Schaeffer. Some properties of functions of exponential type. *Bull. Amer. Math. Society*, Vol. 44, pp. 236–240, 1938.
- [390] R.J. Duffin and A.C. Schaeffer. A class of nonharmonic Fourier series. *Transactions America Math. Society*, pp. 341–366, 1952.
- [391] J. Dunlop and V.J. Phillips. Signal recovery from repetitive non-uniform sampling patterns. *The Radio and Electronic Engineer*, Vol. 44, pp. 491–503, 1974.

- [392] Chen Danmin, L.G. Durand, and H.C. Lee. Application of the cone-kernel distribution to study the effect of myocardial contractility in the genesis of the first heart sound in dog. 17th Annual IEEE Conference on Engineering in Medicine and Biology Society, 1995. *IEEE Vol. 2*, pp. 959–960, 1995.
- [393] K. Dutta and J.W. Goodman. Reconstruction of images of partially coherent objects from samples of mutual intensity. *Journal of the Optical Society America*, Vol. 67, pp. 796–803, 1977.
- [394] J. Duvernoy. Estimation du nombre d'échantillons et du domaine spectral nécessaires pour déterminer une forme moyenne par une technique de superposition. *Optical Communication*, pp. 286–288, 1973.
- [395] H. Dym and H.P. McKean. **Fourier series and Integrals**. Academic Press, New York, 1972.
- [396] H. Dym and H.P. McKean. **Gaussian Processes, Function Theory, and the Inverse Spectral Problem**. Academic Press, New York, 1976.

E

- [397] Sir Arthur Eddington. **The Philosophy of Physical Science**. Cambridge, 1939.
- [398] R.E. Edwards. **Fourier Series, a Modern Introduction**. Springer; 2d ed edition, 1979.
- [399] M. Elad and A. Feuer. Restoration of a single superresolution image from several blurred, noisy, and undersampled measured images. *IEEE Transactions on Image Processing*, Vol. 6(12), pp. 1646–1658, 1997.
- [400] Tryon Edwards, **The New Dictionary of Thoughts-A Cyclopedia of Quotations** (Garden City, NY: Hanover House, 1852; revised and enlarged by C.H. Catrevas, Ralph Emerson Browns, and Jonathan Edwards [descendent, along with Tryon, of Jonathan Edwards (1703–1758), president of Princeton], 1891.
- [401] R.E. Edwards. **Fourier Series, A Modern Introduction, Vol. 1**. Holt, Rinehart and Winston, New York, 1967.
- [402] Ethel Edwards. **Carver of Tuskegee**. (Cincinnati, Ohio; Ethyl Edwards & James T. Hardwick, 1971) pp. 141–42.
- [402a] A. Einstein, J. Mayer, and J. Holmes. *Bite-Size Einstein: Quotations on Just About Everything from the Greatest Mind of the Twentieth Century*, St. Martin's Press, 1996.
- [403] P. Elleaume. Device for calculating a discrete moving window transform and application thereof to a radar system. United States Patent #4,723,125, 1988.
- [404] P. Elleaume. Device for calculating a discrete Fourier transform and its application to pulse compression in a radar system. United States Patent #4,772,889, 1988.
- [405] M.K. Emresoy and P.J. Loughlin. Weighted least-squares implementation of Cohen-Posch time frequency distributions with specified conditional and joint moment constraints. *Proceedings of the IEEE-SP International Symposium on Time-Frequency and Time-Scale Analysis*, pp. 305–308, 1998.
- [406] M.K. Emresoy and P.J. Loughlin. Weighted least squares implementation of Cohen-Posch time-frequency distributions. *IEEE Transactions on Signal Processing*, Vol. 46(3), pp. 753–757, 1998.
- [407] M.K. Emresoy and P.J. Loughlin. Weighted least-squares implementation of Cohen-Posch time-frequency distributions with specified conditional and joint moment constraints. *IEEE Transactions on Signal Processing*, Vol. 47(3), pp. 893–900, 1999.
- [408] A.G. Emslie and G.W. King. Spectroscopy from the point of view of the communication theory, II. *Journal of the Optical Society America*, Vol. 43, pp. 658–663, 1953.
- [409] W. Engels and W. Spletstößer. A note on Maquasi's proofs and truncation error bounds in the dyadic (Walsh) sampling theorem. *IEEE Transactions Acoust, Speech, Signal Processing*, Vol. ASSP-30, pp. 334–335, 1982.
- [410] W. Engels, E.L. Stark, and L. Vogt. Optimal kernels for a sampling theorem. *Journal of Approximate Theory*, Vol. 50(1), pp. 69–83, 1987.
- [411] W. Engels, E.L. Stark, and L. Vogt. On the application of an optimal spline sampling theorem. *Signal Processing*, Vol. 14(3), pp. 225–236, 1988.
- [412] A. Ephremides and L.H. Brandenburg. On the reconstruction error of sampled data estimates. *IEEE Transactions Information Theory*, Vol. IT-19, pp. 365–367, 1973.

- [413] A. Erdelyi *et al.* **Higher Transcendental Functions, Vol. 1.** McGraw-Hill, New York, 1953.
- [414] A. Erdelyi *et al.* **Tables of Integral Transforms II.** McGraw-Hill, New York, 1954.
- [415] M.F. Erden, M.A. Kutay, and H.M. Ozaktas. Repeated filtering in consecutive fractional Fourier domains and its application to signal restoration. *IEEE Transactions on Signal Processing*, Vol. 47(5), pp. 1458–1462, 1999.
- [416] T. Ericson. A generalized version of the sampling theorem. *Proceedings IEEE*, Vol. 60, pp. 1554–1555, 1972.
- [417] P.E. Eren, M.I. Sezan, and A.M. Tekalp. Robust, object-based high-resolution image reconstruction from low-resolution video. *IEEE Transactions on Image Processing*, Vol. 6(10), pp. 1446–1451, 1997.
- [418] T. Erseghe, P. Kraniuskas, G. Cariolaro. Unified fractional Fourier transform and sampling theorem. *IEEE Transactions on Signal Processing*, Vol. 47(12), pp. 3419–3423, 1999.
- [419] Okan K. Ersoy. **Diffraction, Fourier Optics and Imaging.** Wiley-Interscience, 2006.
- [420] A. Erteza and K.S. Lin. On the transform property of a bandlimited function and its samples. *Proceedings IEEE*, Vol. 68, pp. 1149–1150, 1980.
- [421] G. Bora Esmer, Vladislav Uzunov, Levent Onural, Haldun M. Ozaktas, and Atanas Gotchev. Diffraction field computation from arbitrarily distributed data points in space. *Signal Processing – Image Communication*. Vol. 22(2), pp. 178–187, 2007.
- [422] H. Eves. **Mathematical Circles Squared.** Boston: Prindle, Weber and Schmidt, 1972.
- [423] H. Eves. **Mathematical Circles Adieu.** Boston: Prindle, Weber and Schmidt, 1977.
- [424] H. Eves. **Return to Mathematical Circles.** Boston: Prindle, Weber and Schmidt, 1988.

F

- [425] G.S. Fang. Whittaker-Kotelnikov-Shannon sampling theorem and aliasing error. *Journal of Approximation Theory*, Vol. 85(2), pp. 115–131, 1996.
- [426] W.H. Fang, H.S. Hung, C.S. Lu, and P.C. Chu. Block adaptive beamforming via parallel projection method. *IEICE Transactions on Communications*, Vol. E88B(3), pp. 1227–1233, 2005.
- [427] N.H. Farhat and G.P. Shah. Implicit sampling in optical data processing. *Proceedings SPIE*, Vol. 201, pp. 100–106, 1979.
- [428] A. Faridani. A generalized sampling theorem for locally compact abelian groups. *Mathematics of Computation*, Vol. 63(207), pp. 307–327, 1994.
- [429] Thomas C. Farrar and Edwin D. Becker. **Pulse and Fourier Transform NMR: Introduction to Theory and Methods.** Academic Press, 1971.
- [430] H.G. Feichtinger. Wiener amalgam spaces and some of their applications. In *Conf. Proceedings Function spaces, Edwardsville, IL.*, Marcel Dekker, New York, April 1990.
- [431] E.B. Felstead and A.U. Tenne-Sens. Optical interpolation with application to array processing. *Applied Optics*, Vol. 14, pp. 363–368, 1975.
- [432] M.M. Fenoy and P. Ibarrola. The optional sampling theorem for submartingales in the sequentially planned context. *Statistics and Probability Letters*, Vol. 77(8), pp. 826–831, 2007.
- [433] W.L. Ferrar. On the cardinal function of interpolation–theory. *Proceedings Royal Society Edinburgh*, Vol. 45, pp. 267–282, 1925.
- [434] W.L. Ferrar. On the cardinal function of interpolation–theory. *Proceedings Royal Society Edinburgh*, Vol. 46, pp. 323–333, 1926.
- [435] W.L. Ferrar. On the consistency of cardinal function interpolation. *Proceedings Royal Society Edinburgh*, Vol. 47, pp. 230–242, 1927.
- [436] Thomas Clark Farrar and Edwin D. Becker. **Pulse and Fourier Transform NMR: Introduction to Theory and Methods.** Elsevier Science & Technology, 1971.
- [437] John R. Ferraro, Louis J. Basile. **Fourier Transform Infrared Spectroscopy.** Academic Press, 1985.
- [438] John R. Ferraro, Louis J. Basile (Editors). **Fourier Transform Infrared Spectra: Applications to Chemical Systems, Vol. 1.** Elsevier Science & Technology Books, 1978.
- [439] Paulo J.S.G. Ferreira. Incomplete sampling series and the recovery of missing samples from oversampled band-limited signals. *IEEE Transactions Signal Processing*, Vol. 40, 1992. pp. 225–227.

- [440] Paulo J.S.G. Ferreira. Interpolation and the discrete Papoulis-Gerchberg algorithm. *IEEE Transactions on Signal Processing*, Vol. 42(10), pp. 2596–2606, 1994.
- [441] H.A. Ferweda. The phase reconstruction problem for wave amplitudes and coherence functions. In **Inverse Source Problems in Optics**, H.P. Baltés, editor, Springer-Verlag, Berlin, 1978.
- [442] H.A. Ferweda and B.J. Hoenders. On the reconstruction of a weak phase-amplitude object IV. *Optik*, pp. 317–326, 1974.
- [443] Alfred Fettweis, Josef A. Nossek, and Klaus Meerkötter. Reconstruction of signals after filtering and sampling rate reduction. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-33, No. 4, pp. 893–902, 1985.
- [444] M.A. Fiddy and T.J. Hall. Nonuniqueness of super-resolution techniques applied to sampled data. *Journal of the Optical Society America*, Vol. 71, pp. 1406–1407, 1981.
- [445] G. Fielding, R. Hsu, P. Jones, *et al.* Aliasing and reconstruction distortion in digital intermediates. *SMPTE Motion Imaging Journal*, Vol. 115(4), pp. 128–136, 2006.
- [446] A.R. Figueiras-Vidal, J.B. Marino-Acebal, and R.G. Gomez. On generalized sampling expansions for deterministic signals. *IEEE Transactions Circuits & Systems*, Vol. CAS-28, pp. 153–154, 1981.
- [447] G. Fix and G. Strang. Fourier analysis of the finite element method in Ritz-Galerkin theory. *Studies Applied Math*. Vol. 48, pp. 268–273, 1969.
- [448] I.T. Fjallbrandt. Method of data reduction of sampled speech signals by using nonuniform sampling and a time variable digital filter. *Electron. Letters*, Vol. 13, pp. 334–335, 1977.
- [449] T.T. Fjallbrandt. Interpolation and extrapolation in nonuniform sampling sequences with average sampling rate below the Nyquist rate. *Electron. Letters*, Vol. 11, pp. 264–266, 1975.
- [450] G.C. Fletcher and D.J. Ramsay. Photon correlation spectroscopy of polydisperse samples, I. Histogram method with exponential sampling. *Opt. Acta*, Vol. 30, pp. 1183–1196, 1983.
- [451] N.J. Fliege. **Multirate Digital Signal Processing: Multirate Systems - Filter Banks - Wavelets**. Wiley, 2000.
- [452] L. Fogel. A note on the sampling theorem. *IRE Transactions*, Vol. 1, pp. 47–48, 1955.
- [453] J.T. Foley, R.R. Butts. Sampling Theorem for the Reconstruction of Bandlimited Intensities from Their Spatially Averaged Values. *Journal of the Optical Society of America*, Vol. 72(12), pp. 1812–1812, 1982.
- [454] Gerald B. Folland. **Fourier Analysis and Its Applications**. Brooks Cole, 1992.
- [455] Joseph Fourier. **The Analytical Theory of Heat**. Cosimo Classics, 2007.
- [456] William T. Fox. **Fourier Analysis of Weather and Wave Data from Lake Michigan**. Williams College, 1970.
- [457] J. Frank. Computer processing of electron micrographs. In **Advanced Techniques in Biological Electron Microscopy**, J.K. Koehler, editor, Springer-Verlag, New York, 1973.
- [458] G. Franklin. Linear filtering of sampled data. *IRE International Conv. Rec.*, Vol. 3, Pt. 4, pp. 119–128, 1955.
- [459] L.E. Franks. **Signal Theory**. Prentice-Hall, Englewood Cliffs, NJ, 1969.
- [460] D. Fraser. A Conceptual Image Intensity Surface and the Sampling Theorem. *Australian Computer Journal*, Vol. 19(3), pp. 119–125, 1987.
- [461] H. Freeman. **Discrete Time Systems**. John Wiley, New York, 1965.
- [462] A.T. Friberg. On the existence of a radiance function for finite planar sources of arbitrary states of coherence. *Journal of the Optical Society America*, Vol. 69, pp. 192–199, 1979.
- [463] B.R. Frieden. Image evaluation by the use of sampling theorem. *Journal of the Optical Society America*, Vol. 56, pp. 1355–1362, 1966.
- [464] B.R. Frieden. On arbitrarily perfect imagery with a finite aperture. *Opt. Acta*, pp. 795–807, 1969.
- [465] B.R. Frieden. Evaluation, design and extrapolation methods for optical signals, based on the use of the prolate functions. In *Progress in Optics*, E. Wolf, editor, North-Holland, Amsterdam, 1971.
- [466] B.R. Frieden. Image enhancement and restoration. In **Picture processing and digital filtering**, Springer-Verlag, Berlin, 1975.
- [467] B.R. Frieden. Band-unlimited reconstruction of optical objects and spectra. *Journal of the Optical Society America*, Vol. 66, pp. 1013–1019, 1976.
- [468] Michael Fripp, Deborah Fripp, and Jon Fripp. **Speaking of Science**. Newnes, 2000.

- [469] T. Fujita and M.R. McCartney. Phase recovery for electron holography using Gerchberg-Papoulis iterative algorithm. *Ultramicroscopy*, Vol. 102(4), pp. 279–286, 2005.
- [470] Y.H. Fung, Y.H. Chan. POCS-based algorithm for restoring colour-quantised images. *IEE Proceedings Vision, Image and Signal Processing*, Vol. 151(2), pp. 119–127, 2004.
- [471] Y.H. Fung and Y.H. Chan. A POCS-based restoration algorithm for restoring halftoned color-quantized images. *IEEE Transactions on Image Processing*, Vol. 15(7), pp. 1985–1992, 2006.

G

- [472] N.T. Gaardner. Multidimensional Sampling Theorem. *Proceedings of the IEEE*, Vol. 60(2), p. 247, 1972.
- [473] D. Gabioud. Effect of irregular sampling, especially in the case of justification jitter. *Mitteilungen AGEN*, No. 44, pp. 39–46, 1986.
- [474] D. Gabor. Theory of communication. *Journal IEE (London)*, Vol. 93, Part III, pp. 429–457, 1946.
- [475] D. Gabor. A new microscopic principle. *Nature*, pp. 777–779, 1948.
- [476] D. Gabor. Light and information. In **Progress in Optics**, E. Wolf, editor, North-Holland, Amsterdam, 1961.
- [477] V. Galdi, V. Pierro and I.M. Pinto. Evaluation of Stochastic Resonance Based Detectors of Weak Harmonic Signals in Additive White Gaussian Noise. *Physical Review E*, Vol. 55(6), p. 57, 1998.
- [478] N.C. Gallagher, Jr., and G.L. Wise. A representation for band-limited functions. *Proceedings IEEE*, Vol. 63, p. 1624, 1975.
- [479] H. Gamo. Intensity matrix and degrees of coherence. *Journal of the Optical Society America*, Vol. 47, p. 976, 1957.
- [480] H. Gamo. Transformation of intensity matrix by the transmission of a pupil. *Journal of the Optical Society America*, Vol. 48, pp. 136–137, 1958.
- [481] H. Gamo. Matrix treatment of partial coherence. In **Progress in Optics**, E. Wolf, editor, North-Holland, Amsterdam, 1964.
- [482] George Gamow. **One two three ... infinity: Facts and speculations of science**. New American Library, Mentor book edition (1953). Reprinted by Dover Publications, 1988.
- [483] M. Gamshadzahi. Bandwidth reduction in delta modulation systems using an iterative reconstruction scheme. Master's thesis, Department of ECE, Illinois Institute of Technology, Chicago, December, 1989.
- [484] X.C. Gan, A.W.C. Liew, and H. Yan. Microarray missing data imputation based on a set theoretic framework and biological knowledge. *Nucleic Acids Research*, Vol. 34(5), pp. 1608–1619, 2006.
- [485] William L. Gans. The measurement and deconvolution of time jitter in equivalent-time waveform samplers. *IEEE Transactions Instrumentation & Measurement*, Vol. IM-32(1), pp. 126–133, 1983.
- [486] William L. Gans. Calibration and error analysis of a picosecond pulse waveform measurement system at NBS. *Proceedings IEEE*, Vol. 74, No. 1, pp. 86–90, 1986.
- [487] A.G. Garcia, M.A. Hernandez-Medina. The discrete Kramer sampling theorem and indeterminate moment problems. *Journal of Computational and Applied Mathematics*, Vol. 134(1–2), pp. 13–22, 2001.
- [488] Garcia F.M., I.M.G. Lourtie, and J. Buescu. L_2 nonstationary processes and the sampling theorem. *IEEE Signal Processing Letters*, Vol. 8(4), pp. 117–119, 2001.
- [489] P.H. Gardenier, C.A. Lim, D.G.H. Tan *et al.* Aperture distribution phase from single radiation-pattern measurement via Gerchberg-Saxton algorithm. *Electronic Letters*, Vol. 22(2), pp. 113–115, 1986.
- [490] N.T. Garder. A note on multidimensional sampling theorem. *Proceedings IEEE*, Vol. 60, pp. 247–248, 1972.
- [491] W.A. Gardner. A sampling theorem for nonstationary random processes. *IEEE Transactions Information Theory*, Vol. IT-18, pp. 808–809, 1972.
- [492] H. Garudadri and E. Velez. A comparison of smoothing kernels for computing bilinear time-frequency representations. IEEE 1991 International Conference on Acoustics, Speech, and Signal Processing, 1991. ICASSP-91., Vol. 5., pp. 3221–3224, 1991.

- [493] J.D. Gaskill. **Linear Systems, Fourier Transforms and Optics**. John Wiley & Sons, Inc., New York, 1978.
- [494] M. Gaster and J.B. Roberts. Spectral analysis of randomly sampled signals. *Journal Institute Math. Applic.*, Vol. 15, pp. 195–216, 1975.
- [495] G.C. Gaunaurd and H.C. Strifors. Signal analysis by means of time-frequency (Wigner-type) distributions-Applications to sonar and radar echoes. *Proceedings of the IEEE*. Vol. 84(9), pp. 1231–1248, 1996.
- [496] W.S. Geisler and D.B. Hamilton. Sampling theory analysis of spatial vision. *Journal of the Optical Society America A*, Vol. 3, pp. 62–70, 1986.
- [497] F.J. Geng, D.M. Zhu DM and Q.Y. Lu. A new existence result for impulsive dynamic equations on timescales. *Applied Mathematics Letters*, Vol. 20(2), pp. 206–212, 2007.
- [498] T. Gerber and P.W. Schmidt. The sampling theorem and small-angle scattering. *Journal Applied Crystallography*, Vol. 16, pp. 581–589, 1983.
- [499] T. Gerber, G. Walter, and P.W. Schmidt. Use of the Sampling Theorem for Collimation Corrections in Small Angle X-Ray Scatteing. *Journal of Applied Crystallography*, Vol. 24, Part 4, pp. 278–285, 1991.
- [500] R.W. Gerchberg. Super-resolution through error energy reduction. *Optica Acta*, Vol. 21, pp. 709–720, 1974.
- [501] R.W. Gerchberg and W.O. Saxton. A practical algorithm for the determination of phase from image and diffraction plane pictures. *Optik*, 35, pp. 237–246, 1972.
- [502] R.W. Gerchberg. The lock problem in the Gerchberg-Saxton algorithm for phase retrieval. *Optik*, Vol. 74(3), pp. 91–93, 1986.
- [503] Allen Gersho. Asymptotically optimal block quantization. *IEEE Transactions Information Theory*, Vol. IT-25, pp. 373–380, 1979.
- [504] A. Gersho and R. Gray. **Vector Quantization and Signal Compression**. Kluwer Academic Publishers, 1992.
- [505] G. Gheen and F.T.S. Yu. Broadband image subtraction by spectral dependent sampling. *Optical Communication*, pp. 335–341, 1986.
- [506] Charles R. Giardina and Edward R. Dougherty, **Morphological Methods in Image and Signal Processing**, Prentice-Hall, 1988.
- [507] R.J. Glauber. Coherent and incoherent states of the radiation field. *Phys. Rev.*, pp. 2766–2788, 1963.
- [508] M.J.E. Golay. Point arrays having compact, nonredundant autocorrelations. *Journal of the Optical Society America*, Vol. 61, pp. 272–273, 1971.
- [509] M.H. Goldberg and R.J. Marks II. Signal synthesis in the presence of an inconsistent set of constraints. *IEEE Transactions Circuits & Systems*, Vol. CAS-32, pp. 647–663, 1985.
- [510] S. Goldman. **Information Theory**. Dover, New York, 1968.
- [511] Rafael C. Gonzalez. **Digital Image Processing**. Addison-Wesley Publishing Company, Inc., Reading, MA., 1977.
- [512] Enrique A. Gonzalez-Velasco. **Fourier Analysis and Boundary Value Problems**. Academic Press, 1995.
- [513] I.J. Good. The loss of information due to clipping a waveform. *Information & Control*, Vol. 10, pp. 220–222, 1967.
- [514] J.W. Goodman. **Introduction to Fourier Optics**. McGraw-Hill, New York, 1968. (A revised version is also available [518].)
- [515] J.W. Goodman. Imaging with low-redundancy arrays, In **Applications of holography**, Plenum Press, New York, pp. 49–55, 1971.
- [516] J.W. Goodman. Linear space-variant optical data processing. In *Optical Information Processing*, S.H. Lee, editor, Springer-Verlag, New York, 1981.
- [517] J.W. Goodman. **Statistical Optics**. Wiley, New York, 1985.
- [518] J.W. Goodman. **Introduction to Fourier Optics Third Edition**, Roberts & Company Publishers 2004. (This is a revised version of [514].)
- [519] G.C. Goodwin, M.B. Zarrop, and R.L. Payne. Coupled design of test signals, sampling intervals, and filters for system identification. *IEEE Transactions Automatic Control*, Vol. AC-19, 1974.

- [520] R.A. Gopinath, J.E. Odegard and C.S. Burrus. Optimal Wavelet Representation of Signals and the Wavelet Sampling Theorem. *IEEE Transactions on Circuits and Systems II-Analog and Digital Signal Processing*, Vol. 41(4), pp. 262–277, 1994.
- [521] W.J. Gordon and R.F. Riesenfeld. B-spline curves and surfaces. In **Computer Aided Geometric Design**, R. Barnhill and R.F. Riesenfeld, editors, Academic Press, New York, 1974.
- [522] F. Gori. Integral equations for incoherent imagery. *Journal of the Optical Society America*, Vol. 64, pp. 1237–1243, 1974.
- [523] F. Gori. On an iterative method for super-resolution. *International Optics Computing Conf., IEEE Catalog no. 75 CH0941-5C*, pp. 137–141, 1975.
- [524] F. Gori. Lau effect and coherence theory. *Optical Communication*, pp. 4–8, 1979.
- [525] F. Gori. Fresnel transform and sampling theorem. *Optical Communication*, Vol. 39, pp. 293–298, 1981.
- [526] F. Gori and R. Grella. The converging prolate spheroidal functions and their use in Fresnel optics. *Optical Communication*, pp. 5–10, 1983.
- [527] F. Gori and G. Guattari. Effects of coherence on the degrees of freedom of an image. *Journal of the Optical Society America*, Vol. 61, pp. 36–39, 1971.
- [528] F. Gori and G. Guattari. Holographic restoration of nonuniformly sampled bandlimited functions. *Optical Communication*, Vol. 3, pp. 147–149, 1971.
- [529] F. Gori and G. Guattari. Imaging systems using linear arrays of non-equally spaced elements. *Phys. Letters*, Vol 32A, pp. 38–39, 1970.
- [530] F. Gori and G. Guattari. Nonuniform sampling in optical processing. *Optica Acta*, Vol. 18, pp. 903–911, 1971.
- [531] F. Gori and G. Guattari. Optical analog of a non-redundant array. *Phys. Letters* Vol. 32A, pp. 446–447, 1970.
- [532] F. Gori and G. Guattari. Use of nonuniform sampling with a single correcting operation. *Optical Communication*, Vol. 3, pp. 404–406, 1971.
- [533] F. Gori and G. Guattari. Shannon number and degrees of freedom of an image. *Optical Communication*, pp. 163–165, 1973.
- [534] F. Gori and G. Guattari. Degrees of freedom of images from point-like element pupils. *Journal of the Optical Society America*, Vol. 64, pp. 453–458, 1974.
- [535] F. Gori and G. Guattari. Eigenfunction technique for point-like element pupils. *Opt. Acta*, pp. 93–101, 1975.
- [536] F. Gori and G. Guattari. Signal restoration for linear systems with weighted inputs; singular value analysis for two cases of low-pass filtering. *Inverse Problems*, pp. 67–85, 1985.
- [537] F. Gori, G. Guattari, C. Palma, and M. Santarsiero. Superresolving postprocessing for incoherent imagery. *Optical Communication*, pp. 98–102, 1988.
- [538] F. Gori and F. Mallamace. Interference between spatially separated holographic recordings. *Optical Communication* Vol. 8, pp. 351–354, 1973.
- [539] F. Gori and C. Palma. On the eigenvalues of the sinc kernel. *Journal Phys. A, Math. Gen.*, pp. 1709–1719, 1975.
- [540] F. Gori, S. Paolucci, and L. Ronchi. Degrees of freedom of an optical image in coherent illumination, in the presence of aberrations. *Journal of the Optical Society America*, Vol. 65, pp. 495–501, 1975.
- [541] F. Gori and L. Ronchi. Degrees of freedom for scatterers with circular cross section. *Journal of the Optical Society America*, Vol. 71, pp. 250–258, 1981.
- [542] F. Gori and S. Wabnitz. Modifications of the Gerchberg method applied to electromagnetic imaging, In **Inverse Methods in Electromagnetic Imaging**, D. Reidel Publishing Co., Dordrecht, 1985, pp. 1189–1203.
- [543] D. Gottlieb and S.A. Orszag. **Numerical Analysis of Spectral Methods-Theory and Applications**. SIAM Publ., Philadelphia, 1977.
- [544] I.S. Gradshteyn, I.M. Ryzhik, and Alan Jeffrey. **Tables of Integrals, Products and Series, 5th Edition**. Academic Press, New York, 1994.
- [545] Loukas Grafakos. **Classical and Modern Fourier Analysis**. Prentice Hall, 2003.

- [546] I. Grattan-Guinness. Joseph Fourier and the revolution in mathematical physics. *Journal of the Institute of Mathematics and its Applications*, Vol. 5, pp. 230–253, 1969.
- [547] I. Grattan-Guinness. **Joseph Fourier, 1768–1830**. London, 1972.
- [548] Ian A. Gravagne, John M. Davis, Jeffrey J. DaCunha and R.J. Marks II. Bandwidth Reduction for Controller Area Networks using Adaptive Sampling. *Proc. Int. Conf. Robotics and Automation (ICRA)*, New Orleans, LA, pp. 5250–5255, 2004.
- [549] R.M. Gray, A. Buzo, A.H. Gray, Jr., and Y. Matsuyama. Distortion measures for speech processing. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-28, pp. 367–376, 1980.
- [550] P. Greguss and W. Waigelich. Ultrasonic Holographic Fourier Spectroscopy via Optical Fourier Transforms. *IEEE Transactions on Computers*, Vol. C-24(4), pp. 412–418, 1975.
- [551] U. Grenader and G. Szegő. **Toeplitz Forms and their Applications**. University of California Press, Berkeley, CA., 1958.
- [552] M. Grigoriu. Simulation of Stationary Process via a Sampling Theorem. *Journal of Sound and Vibration*, Vol. 166(2), pp. 301–313, 1993.
- [553] B. Grobler. Practical application of the sampling theorem. *Feingerätetechnik*, Vol. 26, pp. 342–345, 1977.
- [554] D. Groutage. The calculation of features for non-stationary signals from moments of the singular value decomposition of Cohen-Posch (positive time-frequency) distributions. *Proceedings of the IEEE-SP International Symposium on Time-Frequency and Time-Scale Analysis*, pp. 605–608, 1998.
- [555] D. Groutage and D. Bennis. Feature sets for nonstationary signals derived from moments of the singular value decomposition of Cohen-Posch (positive time-frequency) distributions. *IEEE Transactions on Signal Processing*, Vol. 48(5), pp. 1498–1503, 2000.
- [556] B.Y. Gu, B.Z. Dong, and G.Z. Yang. A New Algorithm for Retrieval Phase Using the Sampling Theorem. *Optik*, Vol. 75(3), pp. 92–96, 1987.
- [557] C.R. Guarino. A new method of spectral analysis and sample rate reduction for bandlimited signals. *Proceedings IEEE*, Vol. 69, pp. 61–63, 1981.
- [558] L.G. Gubin, B.T. Polyak, and E.V. Ralik. The method of projections for finding the common point of convex sets. *USSR Comput. Math. Phys.*, Vol. 7(6), pp. 1–24, 1967.
- [559] B.K. Gunturk, Y. Altunbasak and R.M. Mersereau. Color plane interpolation using alternating projections. *IEEE Transactions on Image Processing*. Vol. 11(9), pp. 997–1013, 2002.
- [560] B.K. Gunturk, Y. Altunbasak and R.M. Mersereau. Multiframe resolution-enhancement methods for compressed video. *IEEE Signal Processing Letters*, Vol. 9(6), pp. 170–174, 2002.
- [561] S.C. Gupta. Increasing the sampling efficiency for a control system. *IEEE Transactions Automatic Control*, Vol. AC-8, pp. 263–264, 1963.
- [562] R.K. Guy. Mersenne Primes, Repunits, Fermat Numbers, Primes of Shape $k \cdot 2^n + 2$ [sic], in **Unsolved Problems in Number Theory, 2nd ed.**, New York: Springer-Verlag, pp. 8–13, 1994.

H

- [563] M.K. Habib and S. Cambanis. Dyadic sampling approximations for non-sequency-limited signals. *Information & Control*, Vol. 49, pp. 199–211, 1981.
- [564] M.K. Habib and S. Cambanis. Sampling approximation for non-bandlimited harmonizable random signals. *Inform. Sci.*, Vol. 23, pp. 143–152, 1981.
- [565] A.H. Haddad and J.B. Thomas. Integral representation for non-uniform sampling expansions. In *Proceedings 4th Allerton Conference of Circuit System Theory*, pp. 322–333, 1966.
- [566] A.H. Haddad, K. Yao, and J.B. Thomas. General methods for the derivation of sampling theorems. *IEEE Transactions Information Theory*, Vol. IT-13, 1967.
- [567] M.O. Hagler, R.J. Marks II, E.L. Kral, J.F. Walkup, and T.F. Krile. Scanning technique for coherent processors. *Applied Optics*, Vol. 19, pp. 1670–1672, 1980.
- [568] H. Hahn. Über das Interpolation problem. *Math. Z.*, Vol. 1, pp. 115–142, 1918.
- [569] E. Hansen. Fast Hankel transform algorithm. *IEEE Transactions on Acoustics, Speech, and Signal Processing*. Vol. 33(3), pp. 666–671, 1985.

- [570] M.W. Hall and R.J. Marks II. Sampling Theorem Characterization of Variation Limited Systems at Reduced Sampling Rates. *Journal of the Optical Society of America*, Vol. 68(10), pp. 1362–1362, 1978.
- [571] J. Hamill, G.E. Caldwell and T.R. Derrick. Reconstructing digital signals using Shannon's Sampling Theorem. *Journal of Applied Biomagnetics*, Vol. 13(2), pp. 226–238, 1997.
- [572] Richard W. Hamming. **Numerical Methods for Scientists and Engineers**. McGraw-Hill, New York, 1962.
- [573] Richard W. Hamming. The Unreasonable Effectiveness of Mathematics. *The American Mathematical Monthly*, Vol. 87(2), 1980.
- [574] Richard W. Hamming. **Digital Filters: Third Edition**, Dover Publications, 1998.
- [575] R.C. Hansen. **Phased Array Antennas**. Wiley-Interscience, 1998.
- [576] R.M. Haralick and L.G. Shapiro. **Computer and Robot Vision**. Addison-Wesley, 1991.
- [577] R.M. Haralick, X.H. Zhuang, C. Lin *et al.* *The Digital Morphological Sampling Theorem*. *IEEE Transactions on Acoustics, Speech and Signal Processing*, Vol. 37(12), pp. 2067–2090, 1989.
- [578] Robert M. Haralick, **Mathematical Morphology: Theory and Hardware** (Oxford Series in Optical and Imaging Sciences) 2005.
- [579] R.D. Harding. **Fourier Series and Transforms**. Taylor & Francis, 1985.
- [580] G.H. Hardy and W.W. Rogosinski. **Fourier Series**. Dover Publications, 1999.
- [581] J.L. Harris. Diffraction and resolving power. *Journal of the Optical Society America*, Vol. 54, pp. 931–936, 1964.
- [582] C.J. Hartley. Resolution of frequency aliases in ultrasonic pulsed doppler velocimeters. *IEEE Transactions Sonics & Ultrasonics*, Vol. SU-28, pp. 69–75, 1981.
- [583] R. Hartley and K. Welles II. Recursive computation of the Fourier transform. *Proceedings of the 1990 IEEE International Symposium on Circuits and Systems*, pp. 1792–1795.
- [584] Joseph Havlicek. **The Fourier Transform**. Morgan & Claypool Publishers, 2007.
- [585] Stephen Hawking. **A Brief History of Time**. Bantam Books, 1996.
- [586] S. Haykin. **Introduction to Adaptive Filters**. MacMillan, New York, 1976.
- [587] M. Hedley, H. Yan, and D. Rosenfeld. A modified Gerchberg-Saxton algorithm for one-dimensional motion artifact correction in MRI. *IEEE Transactions on Signal Processing*, Vol. 39, pp. 1428–1433, 1991.
- [588] Z.S. Hegedus. Annular pupil arrays; application to confocal scanning. *Opt. Acta*, pp. 815–826, 1985.
- [589] S. Hein and A. Zakhor. Reconstruction of oversampled band-limited signals from $\sigma \Delta$ encoded binary sequences *IEEE Transactions on Signal Processing*, Vol. 42(4), pp. 799–811, 1994.
- [590] H.D. Helms and J.B. Thomas. Truncation error of sampling theorem expansion. *Proceedings IRE*, Vol. 50, pp. 179–184, 1962.
- [591] C.W. Helstrom. An expansion of a signal in Gaussian elementary signals. *IEEE Transactions Information Theory*, Vol. IT-12, pp. 81–82, 1966.
- [592] S.S. Hemami *et al.* Engineering Transform coded image reconstruction exploiting interblock correlation. *IEEE Transactions Image Processing*, Vol. 4(7), pp. 1023–1027, 1995.
- [593] J. Henderson and C.C. Tisdell. Topological transversality and boundary value problems on time scales. *Journal of Mathematical Analysis and Applications*, Vol. 289(1), pp. 110–125, 2004.
- [594] J. Herivel. The influence of Fourier on British mathematics. *Centaurus*, Vol. 17(1), pp. 40–57, 1972.
- [595] John Herivel. **Joseph Fourier: The Man and the Physicist**. Oxford University Press, 1975.
- [596] G.T. Herman, ed., **Image Reconstruction from Projections** Springer-Verlag, Berlin, 1979.
- [597] G.T. Herman, J. Zheng, and C.A. Bucholtz. Shape-based interpolation. *IEEE Computer Graphics and Applications Magazine*, Vol. 12, No. 3, pp. 69–79, May 1992.
- [598] A.O. Hero III and D. Blatt. Sensor network source localization via projection onto convex sets (POCS). *Proceedings IEEE International Conference on Acoustics, Speech, and Signal Processing*, Vol. 3, pp. iii/689–iii/692, 2005.
- [599] R.S. Hershel, P.W. Scott, and T.E. Shrode. Image sampling using phase gratings. *Journal of the Optical Society America*, Vol. 66, pp. 861–863, 1976.

- [600] J.R. Higgins. An interpolation series associated with the Bessel-Hankel transform. *Journal London Math. Society*, Vol. 5, pp. 707–714, 1972.
- [601] J.R. Higgins. A sampling theorem for irregularly spaced sample points. *IEEE Transactions Information Theory*, Vol. IT-22, pp. 621–622, 1976.
- [602] J.R. Higgins. **Completeness and Basis Properties of Sets of Special Functions**. Cambridge University Press, Cambridge, 1977.
- [603] J.R. Higgins. Five short stories about the cardinal series. *Bull. America Math. Society*, Vol. 12, pp. 45–89, 1985.
- [604] J.R. Higgins. Sampling theorems and the contour integral method. *Applied Anal.*, Vol. 41, pp. 155–169, 1991.
- [605] J.R. Higgins **Sampling Theory in Fourier and Signal Analysis: Foundations**. Oxford University Press, 1996.
- [606] J.R. Higgins and Rudolph L. Stens (Editors). **Sampling Theory in Fourier and Signal Analysis: Advanced Topics, Vol. 2**, Oxford University Press, 1999.
- [607] S. Hilger. *Ein Maßkettenkalkül mit Anwendung auf Zentrumsmannigfaltigkeiten*. Ph.D. thesis, Universität Würzburg, 1988.
- [608] S. Hilger. Special Functions: Laplace and Fourier Transform on Measure Chains. *Dynamic Systems and Applications*, Vol. 8, pp. 471–488, 1999.
- [609] S. Hilger. An Application of Calculus on Measure Chains to Fourier Theory and Heisenberg's Uncertainty Principle. *Journal of Difference Equations and Applications*, Vol. 8, pp. 897–936, 2002.
- [610] N.R. Hill and G.E. Ioup. Convergence of the Van Cittert iterative method of deconvolution. *Journal of the Optical Society America*, Vol. 66, pp. 487–489, 1976.
- [611] K. Hirano, M. Sakane, and M.Z. Mulk. Design of 3-D Recursive Digital Filters. *IEEE Transactions Circuits and Systems*, Vol. 31, pp. 550–561, 1984.
- [612] E.W. Hobson. **The theory of functions of a real variable and the theory of Fourier's series**. Michigan Historical Reprint Series. Scholarly Publishing Office, University of Michigan Library, 2005.
- [613] Robert V. Hogg, Allen Craig, and Joseph W. McKean. **Introduction to Mathematical Statistics** (6th Edition). Prentice Hall, 2004.
- [614] E. Holzler. Some remarks on special cases of the sampling theorem. *Frequenz*, Vol. 31, pp. 265–269, 1977.
- [615] I. Honda. Approximation for a class of signal functions by sampling series representation. *Keio Engineering Rep.*, Vol. 31, pp. 21–26, 1978.
- [616] I. Honda. An abstraction of Shannon's sampling theorem. *IEICE Transactions on Fundamentals of Electronics Communications and Computer Sciences*, Vol. E81A(6), pp. 1187–1193, 1998.
- [617] W. Hoppe. The finiteness postulate and the sampling theorem of the three dimensional electron microscopical analysis of aperiodic structures. *Optik*, Vol. 29, pp. 619–623, 1969.
- [618] H. Horiuchi. Sampling principle for continuous signals with time-varying bands. *Information & Control*, Vol. 13, pp. 53–61, 1968.
- [619] Lars Hörmander. **An Introduction to Complex Analysis in Several Variables**. Van Nostrand, Princeton, NJ, 1966.
- [620] Lars Hörmander. **The Analysis of Linear Partial Differential Operators I: Distribution Theory and Fourier Analysis**. Springer, 2003.
- [621] R.F. Hoskins and J.S. Pinto. Generalized sampling expansion in the sense of Papoulis. *SIAM J. Applied Math.*, Vol. 44, pp. 611–617, 1984.
- [622] R.F. Hoskins and J.S. Pinto. Sampling expansions and generalized translation invariance. *Journal Franklin Institute*, Vol. 317, pp. 323–332, 1984.
- [623] G.H. Hostetter. Generalized interpolation of continuous-time signal samples. *IEEE Transactions Systems, Man, Cybernetics*, Vol. SMC-11, pp. 433–439, 1981.
- [624] S.J. Howard. Continuation of discrete Fourier spectra using minimum-negativity constraint. *Journal of the Optical Society America*, Vol. 71, pp. 819–824, 1981.
- [625] S.J. Howard. Method for continuing Fourier spectra given by the fast Fourier transform. *Journal of the Optical Society America*, Vol. 71, pp. 95–98, 1981.

- [626] S.J. Howard. Fast algorithm for implementing the minimum-negativity constraint for Fourier spectrum extrapolation. *Applied Optics*, Vol. 25, pp. 1670–1675, 1986.
- [627] Kenneth B. Howell. **Principles of Fourier Analysis**. CRC, 2001.
- [628] P. Hoyer. Simplified proof of the Fourier Sampling Theorem. *Information Processing Letters*, Vol. 75(4), pp. 139–143, 2000.
- [629] T.C. Hsia. Comparisons of adaptive sampling control laws. *IEEE Transactions Automatic Control*, Vol. AC-17, pp. 830–831, 1972.
- [630] T.C. Hsia. Analytic design of adaptive sampling control law in sampled data systems. *IEEE Transactions Automatic Control*, Vol. 19, pp. 39–41, 1974.
- [631] Hwei Hsu. **Applied Fourier Analysis**. Harcourt Brace Jovanovich, 1984.
- [632] Y. Hu, K.D.K. Luk, W.W. Lu, A. Holmes, and J.C.Y. Leong. Comparison of time-frequency distribution techniques for analysis of spinal somatosensory evoked potential. *Medical & Biological Engineering & Computing*, Vol. 39(3), pp. 375–380, 2001.
- [633] Hua Huang, Xin Fan, Chun Qi, and Shi-Hua Zhu. A learning-based POCS algorithm for face image super-resolution reconstruction. *Proceedings of 2005 International Conference on Machine Learning and Cybernetics*, Vol. 8, pp. 5071–5076, 2005.
- [634] E.X. Huang and A.K. Fung. An application of sampling theorem to moment method simulation in surface scattering. *Journal of Electromagnetic Waves and Applications*, Vol. 20(4), pp. 531–546, 2006.
- [635] F.O. Huck, N. Halyo, and S.K. Park. Aliasing and blurring in 2-D sampled imagery. *Applied Optics*, Vol. 19, pp. 2174–2181, 1980.
- [636] F.O. Huck and S.K. Park. Optical-mechanical line-scan imaging process: Its information capacity and efficiency. *Applied Optics*, Vol. 14, pp. 2508–2520, 1975.
- [637] A. Hughes. Cat retina and the Sampling Theorem—the Relation of Transient and Sustained Brisk Unit Cutoffs Frequency to Alpha Mode and Beta Node Cell Density. *Experimental Brain Research*, Vol. 42(2), pp. 196–202, 1981.
- [638] R. Hulthen. Restoring causal signals by analytic continuation: A generalized sampling theorem for causal signals. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-31, pp. 1294–1298, 1983.
- [639] H.E. Hurlzeler. The Optional Sampling Theorem for Processes Indexed by a Partially Ordered Set. *Annals Of Probability*, Vol. 13(4), pp. 1224–1235, 1985.

I

- [640] Y. Ichioka and N. Nakajima. Iterative image restoration consideration visibility. *Journal of the Optical Society America*, Vol. 71, pp. 983–988, 1981.
- [641] O. Ikeda and T. Sato. Super-resolution imaging system using waves with a limited frequency bandwidth. *Journal Acoust. Society America*, Vol. 6, pp. 75–81, 1979.
- [642] Inna V. Ilyina, Alexander S. Sobolev, and Tatyana Yu. Cherezova; Alexis V. Kudryashov. Gerchberg-Saxton Iterative Algorithm for Flexible Mirror Performance. 8-th International Conference on Laser and Fiber-Optical Networks Modeling. pp. 442–445, 2006.
- [643] G. Indebetow. Propagation of spatially periodic wavefields. *Opt. Acta.*, pp. 531–539, 1984.
- [644] G. Indebetow. Polychromatic self-imaging. *Journal Mod. Opt.*, pp. 243–252, 1988.
- [645] Leopold Infeld. **Quest: The Evolution of a Scientist**. Doubleday, Doran (1941). Reprinted Transaction Pub, 1990.
- [646] Valéria de Magalhães Iorio. **Fourier Analysis and Partial Differential Equations: An Introduction**. Cambridge University Press, 2001.
- [647] H. Ishida, **Fourier Transform–Infrared Characterization of Polymers**. Springer, 1987.
- [648] M.E. Ismail and Ahmed I. Zayed. A q-analogue of the Whittaker-Shannon-Kotelnikov sampling theorem. *Proceedings of the American Mathematical Society*, Vol. 131(12), pp. 3711–3719, 2003.
- [649] S.H. Izen. Generalized sampling expansion on lattices. *IEEE Transactions of Signal Processing*, Vol. 53(6), pp. 1949–1963, 2005.
- [650] Leland B. Jackson. **Digital Filters and Signal Processing... with MATLAB Exercises**, Springer; 3 edition 1995.

- [651] Dunham Jackson. **Fourier Series and Orthogonal Polynomials**. Dover Publications, 2004.
- [652] J.F. James. **A Student's Guide to Fourier Transforms**. Cambridge University Press; 2 edition, 2002.

J

- [653] M.A. Jack, P.M. Grant, and J.H. Collins. The theory, design, and applications of surface acoustic wave Fourier-transform processors. *Proceedings of the IEEE*, Vol. 68(4), pp. 450–468, 1980.
- [654] J.S. Jaffe. Limited angle reconstruction using stabilized algorithms. *IEEE Transactions on Medical Imaging*, Vol. 9(3), pp. 338–344, 1990.
- [655] D.L. Jagerman. Bounds for truncation error of the sampling expansion. *SIAM J. Applied Math.*, Vol. 14, pp. 714–723, 1966.
- [656] D.L. Jagerman. Information theory and approximation of bandlimited functions. *Bell Systems Tech. J.*, Vol. 49, pp. 1911–1941, 1970.
- [657] D.L. Jagerman and L. Fogel. Some general aspects of the sampling theorem. *IRE Transactions Information Theory*, Vol. IT-2, pp. 139–146, 1956.
- [658] J. Jahns and A.W. Lohmann. The Lau effect (a diffraction experiment with incoherent illumination). *Optical Communication*, pp. 263–267, 1979.
- [659] A.K. Jain. **Fundamentals of Digital Image Processing**. Prentice-Hall, Englewood Cliffs, NJ, 1989.
- [660] A.K. Jain and S. Ranganath. Extrapolation algorithms for discrete signals with application to spectral estimation. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-29, pp. 830–845, 1981.
- [661] S. Jang, W. Choi, T.K. Sarkar, M. Salazar-Palma, K. Kyungjung, and C.E. Baum. Exploiting early time response using the fractional Fourier transform for analyzing transient radar returns. *IEEE Transactions on Antennas and Propagation*, Vol. 52(11), pp. 3109–3121, 2004.
- [662] T. Jansson. Shannon number of an image and structural information capacity in volume holography. *Opt. Acta*, pp. 1335–1344, 1980.
- [663] A.J.E.M. Janssen. Weighted Wigner distributions vanishing on lattices. *Journal Math. Anal. Applied*, Vol. 80, pp. 156–167, 1981.
- [664] A.J.E.M. Janssen. Gabor representation of generalized functions. *Journal Math. Anal. Applied*, Vol. 83, pp. 377–396, 1981.
- [665] A.J.E.M. Janssen. Positivity of weighted Wigner distributions. *SIAM J. Math. Anal.*, Vol. 12, pp. 752–758, 1981.
- [666] A.J.E.M. Janssen. Bargmann transform, Zak transform and coherent states. *Journal Math. Phys.*, Vol. 23, pp. 720–731, 1982.
- [667] A.J.E.M. Janssen. The Zak transform: a signal transform for sampled time-continuous signals. *Philips J. Res.*, Vol. 43, pp. 23–69, 1988.
- [668] A.J.E. Janssen, R.N. Veldhuis, and L.B. Vries. Adaptive interpolation of discrete time signals that can be modeled as autoregressive processes. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-34, pp. 317–330, 1986.
- [669] P.A. Jansson, editor. **Deconvolution. With applications in Spectroscopy**. Academic Press, Orlando, FL, 1984.
- [670] P.A. Jansson, R.H. Hunt, and E.K. Plyer. Resolution enhancement of spectra. *Journal of the Optical Society America*, Vol. 60, pp. 596–599, 1970.
- [671] Y.C. Jenq. Digital spectra of nonuniformly sampled signals: Digital look up tunable sinusoidal oscillators. *IEEE Transactions Instrumentation & Measurement*, Vol. 37, No. 3, pp. 358–362, 1988.
- [672] Yeonsik Jeong, Inkyeom Kim, and Hyunchul Kang. A practical projection-based postprocessing of block-coded images with fast convergence rate. *IEEE Transactions on Circuits and Systems for Video Technology*, Vol. 10(4), pp. 617–623, 2000.
- [673] A.J. Jerri. On the application of some interpolating functions in physics. *Journal Res. National Bureau of Standards -B. Math. Sciences*, Vol. 73B, No. 3, pp. 241–245, 1969.
- [674] A.J. Jerri. On the equivalence of Kramer's and Shannon's generalized sampling theorems. *IEEE Transactions Information Theory*, Vol. IT-15, pp. 469–499, 1969.

- [675] A.J. Jerri. Some applications for Kramer's generalized sampling theorem. *Journal Engineering Math.*, Vol. 3, No. 2, April 1969.
- [676] A.J. Jerri. Application of the sampling theorem to time-varying systems. *Journal Franklin Institute*, Vol. 293, pp. 53–58, 1972.
- [677] A.J. Jerri. Sampling for not necessarily finite energy signals. *International J. System Sci.*, Vol. 4, No. 2, pp. 255–260, 1973.
- [678] A.J. Jerri. Sampling expansion for the L_v^α -Laguerre integral transform. *Journal Res. National Bureau of Standards -B. Math. Sciences*, Vol. 80B, pp. 415–418, 1976.
- [679] A.J. Jerri. The Shannon sampling theorem-its various extensions and applications: A tutorial review. *Proceedings IEEE*, Vol. 65, No. 11, pp. 1565–1596, 1977.
- [680] A.J. Jerri. Computation of the Hill functions of higher order. *Math. Comp.*, Vol. 31, pp. 481–484, 1977.
- [681] A.J. Jerri. Towards a discrete Hankel transform and its applications. *Journal of Applied Anal.*, Vol. 7, pp. 97–109, 1978.
- [682] A.J. Jerri. The application of general discrete transforms to computing orthogonal series and solving boundary value problems. *Bull. Calcutta Math. Society*, Vol. 71, pp. 177–187, 1979.
- [683] A.J. Jerri. General transforms hill functions. *Journal Applicable Analysis*, Vol. 14, pp. 11–25, 1982.
- [684] A.J. Jerri. A note on sampling expansion for a transform with parabolic cylinder kernel. *Inform. Sci.*, Vol. 26, pp. 1–4, 1982.
- [685] A.J. Jerri. On a recent application of the Shannon sampling theorem. In *IEEE International Symposium on Information Theory, Quebec, Canada*, 1983.
- [686] A.J. Jerri. A definite integral. *SIAM Rev.*, Vol. 25, No.1, p. 101, 1983.
- [687] A.J. Jerri. Interpolation for the generalized sampling sum of approximation theory. *The AMS Summer Meeting, Albany, NY*, 1983.
- [688] A.J. Jerri. Application of the transform–iterative method to nonlinear concentration boundary value problem. *Chem. Engineering Commun.*, Vol. 23, pp. 101–113, 1983.
- [689] A.J. Jerri. The generalized sampling theorem for transforms of not necessarily square integrable functions. *Journal Math., Math. Sci.*, Vol. 8, pp. 355–358, 1985.
- [690] A.J. Jerri. **Introduction to Integral Equations with Applications**. Marcel Dekker, New York, 1985.
- [691] A.J. Jerri. Part II: The Sampling Expansion – A Detailed Bibliography. 1986.
- [692] A.J. Jerri. An extended Poisson type sum formula for general integral transforms and aliasing error bound for the generalized sampling theorem. *Journal Applied Analysis*, Vol. 26, pp. 199–221, 1988.
- [693] A.J. Jerri. **The Gibbs Phenomenon in Fourier Analysis, Splines and Wavelet**. Springer, 1998.
- [694] A.J. Jerri. A recent modification of iterative methods for solving nonlinear problems. **The Math. Heritage of C.F. Gauss**, 1991, G.M. Rassias, editor, World Scientific Publ. Co., Singapore, pp. 379–404.
- [695] A.J. Jerri. **Integral and Discrete Transforms with Applications and Error Analysis**. Marcel Dekker Inc., New York, 1992.
- [696] A.J. Jerri and E.J. Davis. Application of the sampling theorem to boundary value problems. *Journal Engineering Math.*, Vol. 8, pp. 1–8, 1974.
- [697] A.J. Jerri and D.W. Kreisler. Sampling expansions with derivatives for finite Hankel and other transforms. *SIAM J. Math. Anal.*, Vol. 6, pp. 262–267, 1975.
- [698] A.J. Jerri. Truncation error for the generalized Bessel type sampling series. *Journal Franklin Institute (USA)* Vol. 314, No. 5, pp. 323–328, 1982.
- [699] A.J. Jerri, R.L. Herman and R.H. Weiland. A modified iterative method for nonlinear chemical concentration in cylindrical and spherical pellets. *Chem. Engineering Commun.*, Vol. 52, pp. 173–193, 1987.
- [700] H. Johnen. Inequalities connected with moduli of smoothness. *Mat. Vesnik*, Vol. 9(24), pp. 289–303, 1972.
- [701] G. Johnson and J.H.S. Hutchinson. The limitations of NMR recalled–echo imaging techniques. *Journal Magnetic Resonance*, Vol. 63, pp. 14–30, 1985.

- [702] Joint Photographic Experts Group, ISO-IEC/JTC1/SC2/WP8, “JPEG technical specification, revision 8,” JPEG-8-R8, 1990.
- [703] M.C. Jones. The discrete Gerchberg algorithm. *IEEE Transactions Acoust., Speech, Signal Processing, Vol. ASSP-34*, pp. 624–626, 1986.
- [704] D.L. Jones, R.G. Baraniuk. An adaptive optimal-kernel time-frequency representation. *IEEE Transactions on Signal Processing, Vol. 43(10)*, pp. 2361–2371, 1995.
- [705] I.I. Jouny. Scattering analysis using fractional Fourier with applications in mine detection. *Proceedings. 2004 IEEE International Geoscience and Remote Sensing Symposium, 2004. IGARSS '04. Vol. 5*, pp. 3460–3463, 2004.

K

- [706] M. Kac, W.L. Murdock, and G. Szegö. On the eigenvalues of certain Hermitian forms. *Journal Rat. Mech., Anal.*, pp. 767–800, 1953.
- [707] M.I. Kadec. The exact value of the Paley-Wiener constant *Soviet Math. Dokl.*, Vol. 5, pp. 559–561, 1964.
- [708] R.E. Kahn and B. Liu. Sampling representation and optimum reconstruction of signals. *IEEE Transactions Information Theory, Vol. IT-11*, pp. 339–347, 1965.
- [709] T. Kailath. Channel characterization: time-variant dispersive channels. In **Lectures on Communications Systems Theory**, E.J. Baghdady, editor, McGraw-Hill, New York, 1960.
- [710] S.C. Kak. Sampling theorem in Walsh-Fourier analysis. *Electron. Letters, Vol. 6*, pp. 447–448, 1970.
- [711] Avinash C. Kak, Malcolm Slaney. **Principles of Computerized Tomographic Imaging**. Industrial & Applied Math (2001).
- [712] G. Kakoza and D. Munson. A frequency-domain characterization of interpolation from nonuniformly spaced data. In *Proceedings of the International Symposium on Circuits and Systems, Portland, Oregon*, pp. 288–291, 1989.
- [713] F. Kamalabadi and B. Sharif. Robust regularized tomographic imaging with convex projections. IEEE International Conference on Image Processing, 2005. *ICIP 2005. Vol. 2*, pp. II - 205–208, 2005.
- [714] N.S. Kambo and F.C. Mehta. Truncation error for bandlimited non-stationary processes. *Inform. Sci.*, Vol. 20, pp. 35–39, 1980.
- [715] N.S. Kambo and F.C. Mehta. An upper bound on the mean square error in the sampling expansion for non-bandlimited processes. *Inform. Sci.*, Vol. 21, pp. 69–73, 1980.
- [716] E.O. Kamenetskii. Sampling theorem in macroscopic electrodynamics of crystal lattices. *Physical Review E, Vol. 57(3)*, pp. 3556–3562, Part B, 1998.
- [717] David W. Kammler. **First Course in Fourier Analysis**. Prentice Hall, 2000.
- [718] M. Kato, I. Yamada and K. Sakaniwa. A set-theoretic blind image deconvolution based on hybrid steepest descent method. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences. Vol. E82A (8)*, pp. 1443–1449, 1999.
- [719] K. Kazmierczuk, W. Kozminski, and I. Zhukov. Two-dimensional Fourier transform of arbitrarily sampled NMR data sets. *Journal of Magnetic Resonance, Vol. 179(2)*, pp. 323–328, 2006.
- [720] L.M. Kani and J.C. Dainty. Super-resolution using the Gerchberg algorithm. *Optical Communication*, pp. 11–17, 1988.
- [721] D. Kaplan and R.J. Marks II. Noise sensitivity of interpolation and extrapolation matrices. *Applied Optics, Vol. 21*, pp. 4489–4492, 1982.
- [722] Saleem A. Kassam. **Signal Detection in Non-Gaussian Noise**. Springer-Verlag, 1988.
- [723] R. Kasturi, T.T. Krile, and J.F. Walkup. Space-variant 2-D processing using a sampled input/sampled transfer function approach. *SPIE Inter. Optical Comp. Conf.*, Vol. 232, pp. 182–190, 1980.
- [724] Jyrki Kauppinen and Jari Partanen. **Fourier Transforms in Spectroscopy**. Wiley, 2001.
- [725] M. Kawamura and S. Tanaka. Proof of sampling theorem in sequency analysis using extended Walsh functions. *Systems-Comput. Controls, Vol. 9*, pp. 10–15, 1980.
- [726] Steven M. Kay. The effect of sampling rate on autocorrelation estimation. *IEEE Transactions Acoust., Speech, Signal Processing, Vol. ASSP-29, No. 4*, p. 859–867, 1981.

- [727] R.B. Kerr. Polynomial interpolation errors for bandlimited random signals. *IEEE Transactions Systems, Man, Cybernetics*, pp. 773–774, 1976.
- [728] R.B. Kerr. Truncated sampling expansions for bandlimited random signals. *IEEE Transactions Systems, Man, Cybernetics*, Vol. SMC-9, pp. 362–364, 1979.
- [729] L.M. Khadra, J.A. Draidi, M.A. Khasawneh and M.M. Ibrahim. Time-frequency distributions based on generalized cone-shaped kernels for the representation of nonstationary signals. *Journal of the Franklin Institute-Engineering and Applied Mathematics*. Vol. 335B(5), pp. 915–928, 1998.
- [730] K. Khare and N. George. Sampling-theory approach to eigenwavefronts of imaging systems. *Journal of the Optical Society of America A-Optics, Image Science and Vision*, Vol. 22(3), pp. 434–438, 2005.
- [731] K. Khare. Bandpass sampling and bandpass analogues of prolate spheroidal functions. *Signal Processing*, Vol. 86(7), pp. 1550–1558, 2006.
- [732] A.A. Kharkevich. Kotelnikov's theorem—a review of some new publications. *Radiotekhnika*, Vol. 13, pp. 3–10, 1958.
- [733] Y.I. Khurgin and V.P. Yakovlev. Progress in the Soviet Union on the theory and applications of bandlimited functions. *Proceedings IEEE*, Vol. 65, pp. 1005–1029, 1976.
- [734] T. Kida. Generating functions for sampling theorems. *Electronics and Communications in Japan*, (English Translation), Vol. 65(1), pp. 9–18, 1982.
- [735] T. Kida. Extended formulas of sampling theorem on bandlimited waves and their application to the design of digital filters for data transmission. *Electron Communication Japan*, Part 1, Vol. 68(11), pp. 20–29, 1985.
- [736] Yoon Kim, Chun-Su Park and Sung-Jea Ko. Fast POCS based post-processing technique for HDTV. *IEEE Transactions on Consumer Electronics*, Vol. 49(4), pp. 1438–1447, 2003.
- [737] Yoon Kim, Chun-Su Park, Sung-Jea Ko. Frequency domain post-processing technique based on POCS. *Electronics Letters*, Vol. 39(22), pp. 1583–1584, 2003.
- [738] G.W. King and A.G. Emslie. Spectroscopy from the point of view of the communication theory I. *Journal of the Optical Society America*, Vol. 41, pp. 405–409, 1951.
- [739] G.W. King and A.G. Emslie. Spectroscopy from the point of view of the communication theory III. *Journal of the Optical Society America*, Vol. 43, pp. 664–668, 1953.
- [740] K. Kinoshita and M. Lindenbaum. Robotic control with partial visual information. *International Journal of Computer Vision*, Vol. 37(1), pp. 65–78, 2000.
- [741] J.G. Kirkwood. Quantum statistics if almost classical ensembles. *Phys. Rev.*, Vol. 44, pp. 31–37, 1933.
- [742] S.J. Kushner and T.W. Barnard. Detection and location of point images in sampled optical systems. *Journal of the Optical Society America*, Vol. 62, pp. 17–20, 1972.
- [743] Morris Kline. **Mathematical Thought from Ancient to Modern Times**, Oxford University Press, 1972.
- [744] D. Klusch. The Sampling Theorem, Dirichlet Series and Hankel Transforms. *Journal of Computational and Applied Mathematics*, Vol. 44(3), pp. 261–273, 1992.
- [745] I. Kluvanek. Sampling theorem in abstract harmonic analysis. *Mat. Casopis Sloven. Akad. Vied*, Vol. 15, pp. 43–48, 1965.
- [746] J.J. Knab. System error bounds for Lagrange estimation of bandlimited functions. *IEEE Transactions Information Theory*, Vol. IT-21, pp. 474–476, 1975.
- [747] J.J. Knab. Interpolation of bandlimited functions using the approximate prolate series. *IEEE Transactions Information Theory*, Vol. IT-25, pp. 717–720, 1979.
- [748] J.J. Knab. Simulated cardinal series errors versus truncation error bounds. *Proceedings IEEE*, Vol. 68, pp. 1020–1060, 1980.
- [749] J.J. Knab. Noncentral interpolation of bandlimited signals. *IEEE Transactions Aerospace & Electronic Systems*, Vol. AES-17, pp. 586–591, 1981.
- [750] J.J. Knab and M.I. Schwartz. A system error bound for self truncating reconstruction filter class. *IEEE Transactions Information Theory*, Vol. IT-21, pp. 341–342, 1975.
- [751] I.P. Knyshev. The sampling theorem in amplitude, quantization of random signals. *Journal of Communications Technology and Electronics*, Vol. 47(12), pp. 1361–1363, 2002.

- [752] I.P. Knyshev. The sampling theorem in amplitude, quantization of random signals. *Journal of Communications Technology and Electronics*, Vol. 47(12), pp. 1361–1363, 2002.
- [753] Y. Kobayashi and M. Inoue. Combination of two discrete Fourier transforms of data sampled separately at different rates. *Journal Inf. Process*, Vol. 3, pp. 203–207, 1980.
- [754] T. Kodama. Sampling theorem application to SAW diffraction simulation. *Electron. Letters*, Vol. 16, pp. 460–462, 1980.
- [755] H. Kogelnik and T. Li. Laser beams and resonators. *Proceedings IEEE*, pp. 1312–1329, 1966.
- [756] A. Kohlenberg. Exact interpolation of bandlimited functions. *Journal Applied Phys.*, Vol. 24, pp. 1432–1436, 1953.
- [757] D. Kohler and L. Mandel. Source reconstruction from the modulus of the correlation function: a practical approach to the phase problem of optical coherence theory. *Journal of the Optical Society America*, Vol. 63, pp. 126–134, 1973.
- [758] K. Kojima. Sampling Theorem in Diffraction Integral Transform. *Japanese Journal of Applied Physics*, Vol. 16(5), pp. 817–825, 1977.
- [759] Chi-Wah Kok; Man-Wai Kwan. Sampling theorem for ISI-free communication. *Proceedings. IEEE International Symposium on Information Theory*, p. 99, 2003.
- [760] Alexander Koldobsky. **Fourier Analysis In Convex Geometry**. American Mathematical Society 2005.
- [761] A.N. Kolmogorov. Interpolation und Extrapolation von stationären zufälligen Folgen (Russian). *Bull Acad. Sci. USSR, Ser. Math*, Vol. 5, pp. 3–14, 1941.
- [762] B.H. Kolner and D.M. Bloom. Direct electric-optic sampling of transmission-line signals propagating on a GaAs substrate. *Electron. Letters*, Vol. 20, pp. 818–819, 1984.
- [763] A. Kolodziejczyk. Lensless multiple image formation by using a sampling filter. *Optical Communication*, pp. 97–102, 1986.
- [764] Vilmos Komornik and Paola Loreti. **Fourier Series in Control Theory**. Springer, 2005.
- [765] R. Konoun. PPM reconstruction using iterative techniques, project report. Technical report, Dept. of ECE, Illinois Institute of Technology, Chicago, September, 1989.
- [766] P. Korn. Some uncertainty principles for time-frequency transforms of the Cohen class. *IEEE Transactions on Signal Processing*, Vol. 53(2), Part 1, pp. 523–527, 2005.
- [767] T.W. Körner. **Fourier Analysis**. Cambridge University Press; Reprint edition, 1989.
- [768] A. Korpel. Gabor: frequency, time and memory. *Applied Optics*, pp. 3624–3632, 1982.
- [769] Z. Kostic. Low-complexity equalization for $\frac{\pi}{4}$ DQPSK signals based on the method of projection onto convex sets. *IEEE Transactions on Vehicular Technology*, Vol. 48(6), pp. 1916–1922, 1999.
- [770] V.A. Kotelnikov. On the carrying capacity of “ether” and wire in electrocommunications. In *Idz. Red. Upr. Svyazi RKKA(Moscow)*, Material for the first all-union conference on the questions of communications, 1933.
- [771] K.T. Kou and T. Qian. Shannon sampling and estimation of band-limited functions in the several complex variables setting. *Acta Mathematica Scientia*, Vol. 25(4), pp. 741–754, 2005.
- [772] H.P. Kramer. A generalized sampling theorem. *Journal Math. Phys.*, Vol. 38, pp. 68–72, 1959.
- [773] H.P. Kramer. The digital form of operators on bandlimited functions. *Journal Math. Anal. Applied*, Vol. 44, No. 2, pp. 275–287, 1973.
- [774] G.M. Kranc. Comparison of an error-sampled system by a multirate controller. *Transactions America Institute Elec. Engineering*, Vol. 76, pp. 149–159, 1957.
- [775] E. Krasnopevtsev. Fractional Fourier transform based on geometrical optics *Proceedings KORUS 2003. The 7th Korea-Russia International Symposium on Science and Technology*, Vol. 3, pp. 82–86, 2003.
- [776] M.G. Krein. On a fundamental approximation problem in the theory of extrapolation and filtration of stationary random processes (Russian). *Dokl. Akad. Nauk SSSR* Vol. 94, pp. 13–16, 1954. [English translation: *Amer. Math. Society Selected Transl. Math. Statist. Prob.* 4, pp. 127–131], 1964.
- [777] R. Kress. On the general Hermite cardinal interpolation. *Math. Comput.*, Vol. 26, pp. 925–933, 1972.

- [778] H.N. Kritikos and P.T. Farnum. Approximate evaluation of Gabor expansions. *IEEE Transactions Syst., Man, Cybern. SMC-17*, pp. 978–981, 1987.
- [779] J.W. Krutch. “The Colloid and the Crystal”, in I. Gordon and S. Sorkin (eds.) **The Armchair Science Reader**, New York: Simon and Schuster, 1959.
- [780] A. Kumar and O.P. Malik. Discrete analysis of load-frequency control problem. *Proceedings IEEE, Vol. 131*, pp. 144–145, 1984.
- [781] H.R. Kunsch, E. Agrell and F.A. Hamprecht. Optimal lattices for sampling. *IEEE Transactions on Information Theory, Vol. 51(2)*, pp. 634–647, 2005.
- [782] G.M. Kurajian and T.Y. Na. Elastic beams on nonlinear continuous foundations. *ASME Winter Annual Meeting*, pp. 1–7, 1981.
- [783] T.G. Kurtz. The Optional Sampling Theorem for Martengales Indexed by Directed Sets. *Annals of Probability, Vol. 8(4)*, pp. 675–681, 1980.
- [784] H.J. Kushner and L. Tobias. On the stability of randomly sampled systems. *IEEE Transactions Automatic Control, Vol. AC-14*, pp. 319–324, 1969.
- [785] A. Kutay, H.M. Ozaktas, O. Ankan, and L. Onural. Optimal filtering in fractional Fourier domains. *IEEE Transactions on Signal Processing, Vol. 45(5)*, pp. 1129–1143, 1997.
- [786] Goo-Rak Kwon, Hyo-Kak Kim, Yoon Kim and Sung-Jea Ko. An efficient POCS-based post-processing technique using wavelet transform in HDTV. *IEEE Transactions on Consumer Electronics, Vol. 51(4)*, pp. 1283–1290, 2005.
- [787] M.S. Kwon, Y.B. Cho and S.Y. Shin. Experimental demonstration of a long-period grating based on the sampling theorem. *Applied Physics Letters, Vol. 88(21)*, Art. No. 211103, 22 2006.
- [788] M.S. Kwon and S.Y. Shin. Theoretical investigation of a notch filter using a long-period grating based on the sampling theorem. *Optics Communications, Vol. 263(2)*, pp. 214–218, 2006.

L

- [789] B. Lacaze. A generalization of n -th sampling formula. *Ann. Telecomm., Vol. 30*, pp. 208–210, 1975.
- [790] P. Lancaster and M. Tiemenesky. **The Theory of Matrices**. Academic Press, Orlando, FL, 1985.
- [791] H.J. Landau. On the recovery of a bandlimited signal after instantaneous companding and subsequent band limiting. *Bell Systems Tech. J., Vol. 39*, pp. 351–364, 1960.
- [792] H.J. Landau. Necessary density conditions for sampling and interpolation of certain entire functions. *Acta Math.*, pp. 37–52, 1967.
- [793] H.J. Landau. Sampling, data transmission and the Nyquist rate. *Proceedings IEEE, Vol. 55*, pp. 1701–1706, 1967.
- [794] H.J. Landau. On Szegő’s eigenvalue distribution theorem and non-Hermitian kernels. *Journal Analyse Math.*, pp. 335–357, 1975.
- [795] H.J. Landau and W.L. Miranker. The recovery of distorted bandlimited signals. *Journal Math. Anal. & Applied, Vol. 2*, pp. 97–104, 1961.
- [796] H.J. Landau and H.O. Pollak. Prolate spheroidal wave functions Fourier analysis and uncertainty II. *Bell Systems Tech. J., Vol. 40*, pp. 65–84, 1961.
- [797] H.J. Landau and H.O. Pollak. Prolate spheroidal wave functions Fourier analysis and uncertainty III: The dimension of the space of essentially time- and bandlimited signals. *Bell Systems Tech. J., Vol. 41*, pp. 1295–1336, 1962.
- [798] H.J. Landau and H. Widom. Eigenvalue distribution of time and frequency limiting. *Journal Math. Anal., Applied, Vol. 77*, pp. 469–481, 1980.
- [799] A. Landé. Optik und Thermodynamik, In **Handbuch der Physik**, Springer-Verlag, Berlin, pp. 453–479, 1928.
- [800] L. Landweber. An iteration formula for Fredholm integral equations of the first kind. *Amer. J. Math.*, pp. 615–624, 1951.
- [801] P.J. La Riviere and X.C. Pan. Interlaced interpolation weighting functions for multislice helical computed tomography. *Optical Engineering, Vol. 42(12)*, pp. 3461–3470, 2003.
- [802] Rupert Lasser. **Introduction to Fourier Series**. CRC, 1996.
- [803] B.P. Lathi. **Communication Systems**. John Wiley & Sons, Inc., New York, 1965.

- [804] K.N. Le, K.P. Dabke and G.K. Egan. Signal detection using time-frequency distributions with nonunity kernels. *Optical Engineering*, Vol. 40(12), pp. 2866–2877, 2001.
- [805] Thuyen Le and M. Glesner. Rotating stall analysis using signal-adapted filter bank and Cohen's time-frequency distributions. *Proceedings of the 2000 IEEE International Symposium on Circuits and Systems*, ISCAS 2000 Geneva. Vol. 1, 28–31, pp. 603–606, 2000.
- [806] A.J. Lee. On bandlimited stochastic processes. *SIAM J. Applied Math.*, Vol. 30, pp. 269–277, 1976.
- [807] A.J. Lee. Approximate interpolation and the sampling theorem. *SIAM J. Applied Math.*, Vol. 32, pp. 731–744, 1977.
- [808] A.J. Lee. Sampling theorems for nonstationary random processes. *Transactions Amer. Math. Society*, Vol. 242, pp. 225–241, 1978.
- [809] A.J. Lee. A note on the Campbell sampling theorem. *SIAM J. Applied Math.*, Vol. 41, pp. 553–557, 1981.
- [810] H. Lee. On orthogonal transformations. *IEEE Transactions Circuits & Systems*, Vol. CAS-32, pp. 1169–1177, 1985.
- [811] Y.W. Lee. **Statistical Theory of Communication**. John Wiley & Sons, New York, 1960.
- [812] W.H. Lee. Computer-generated holograms: techniques and applications, In **Progress in Optics**, North-Holland, Amsterdam, 1978, pp. 119–232.
- [813] A.J. Lee. Approximate Interpolation and Sampling Theorem. *SIAM Journal on Applied Mathematics*, Vol 32(4), pp. 731–744 1977.
- [814] S. Lee, P.S. Cho, R.J. Marks II, and S. Oh. Conformal radiotherapy computation by the method of alternating projection onto convex sets. *Phys. Med. Biol.*, Vol. 42, pp. 1065–1086, 1997.
- [815] X. Lee, Y.-Q. Zhang, and A. Leon-Garcia. Information loss recovery for block-based Image coding techniques-A fuzzy logic approach. *IEEE Transactions Image Processing*, Vol. 4, pp. 259–273, 1995.
- [816] J. Leibrich and H. Puder. A TF distribution for disturbed and undisturbed speech signals and its application to noise reduction. *Signal Processing*. Vol. 80(9), pp. 1761–1776, 2000.
- [817] E.N. Leith and J. Upatnieks. Reconstructed wavefronts and communication theory. *Journal of the Optical Society America*, pp. 1123–1130, 1962.
- [818] O.A.Z. Leneman. Random sampling of random processes: impulse processes. *Information & Control*, Vol. 9, pp. 347–363, 1966.
- [819] O.A.Z. Leneman. On error bounds for jittered sampling. *IEEE Transactions Automatic Control*, Vol. AC-11, p. 150, 1966.
- [820] O.A.Z. Leneman. Random sampling of random processes: optimum linear interpolation. *Journal Franklin Institute*, Vol. 281, pp. 302–314, 1966.
- [821] O.A.Z. Leneman and J. Lewis. A note on reconstruction for randomly sampled data. *IEEE Transactions Automatic Control*, Vol. AC-10, p. 626, 1965.
- [822] O.A.Z. Leneman and J. Lewis. Random sampling of random processes: Mean square comparison of various interpolators. *IEEE Transactions Automatic Control*, Vol. AC-10, pp. 396–403, 1965.
- [823] O.A.Z. Leneman and J. Lewis. On mean-square reconstruction error. *IEEE Transactions Automatic Control*, Vol. AC-11, pp. 324–325, 1966.
- [824] A. Lent and H. Tuy. An iterative method for the extrapolation of bandlimited functions. *Journal Math. Anal., Applied*, pp. 554–565, 1981.
- [825] J. LeRoux, P. Lise, E. Zerbib, *et al*. A formulation in concordance with the sampling theorem for band-limited images reconstruction from projections. *Multidimensional Systems and Signal Processing*, Vol. 7(1), pp. 27–52, 1996.
- [826] Pete E. Lestrel (Editor). **Fourier Descriptors and their Applications in Biology**. Cambridge University Press, 1997.
- [827] Emmanuel Letellier. **Fourier Transforms of Invariant Functions on Finite Reductive Lie Algebras**. Springer, 2005.
- [828] L. Levi. Fitting a bandlimited signal to given points. *IEEE Transactions Information Theory*, Vol. IT-11, pp. 372–376, 1965.

- [829] N. Levinson. Gap and density theorems. In *Colloq. Pub.* 26. Amer. Math. Society, New York, 1940.
- [830] M. Levonen and S. McLaughlin. Fractional Fourier transform techniques applied to active sonar. *Proceedings OCEANS 2003. Vol. 4*, pp. 1894–1899, 2003.
- [831] Jian Li and Petre Stoica. **Robust Adaptive Beamforming**. Wiley-Interscience, 2005.
- [832] G.B. Lichtenberger. A note on perfect predictability and analytic processes. *IEEE Transactions Information Theory, Vol. IT-20*, pp. 101–102, 1974.
- [833] B. Lien and G. Tang. Reversed Chebyshev implementation of McClellan transform and its roundoff error. *IEEE Transactions on Acoustics, Speech, and Signal Processing, Vol. 35(10)*, pp. 1435–1439, 1987.
- [834] A. Wee-Chung Liew and Hong Yan. POCS-based blocking artifacts suppression with region smoothness constraints for graphic images. *Proceedings of 2004 International Symposium on Intelligent Multimedia, Video and Speech Processing*, pp. 563–566, 2004.
- [835] Y. Linde, A. Buzo and R.M. Gray. An algorithm for vector quantizer design. *IEEE Transactions Commun., Vol. COM-28*, pp. 89–95, 1980.
- [836] D.A. Linden. A discussion of sampling theorems. *Proceedings IRE, Vol. 47*, pp. 1219–1226, 1959.
- [837] D.A. Linden and N.M. Abramson. A generalization of the sampling theorem. *Information & Control, Vol. 3*, pp. 26–31, 1960.
- [838] E.H. Linfoot. Information theory and optical images. *Journal of the Optical Society America*, pp. 808–819, 1955.
- [839] E.H. Linfoot. Quality evaluation of optical systems. *Opt. Acta*, pp. 1–14, 1958.
- [840] John Litva. **Digital Beamforming in Wireless Communications**. Artech House Publishers, 1996.
- [841] C.L. Liu and Jane W.S. Liu. **Linear Systems Analysis**. McGraw-Hill, New York, 1975.
- [842] Y.M. Liu. A distributional sampling theorem. *SIAM Journal on Mathematical Analysis, Vol. 27(4)*, pp. 1153–1157, 1996.
- [843] S.P. Lloyd. A sampling theorem for stationary (wide sense) stochastic processes. *Transactions America Math. Society, Vol. 92*, pp. 1–12, 1959.
- [844] C. Loana, A. Quinquis, and Y. Stephan. Feature extraction from underwater signals using time-frequency warping operators. *IEEE Journal of Oceanic Engineering, Vol. 31(3)*, pp. 628–645, 2006.
- [845] Robert P. Loce and Ronald E. Jodoin. Sampling theorem for geometric moment determination and its application to a laser beam position detector. *Applied Optics, Vol. 29, No. 26*, pp. 3835–3843, 1990.
- [846] P.P. Loesberg. Low-frequency A-D input systems. *Instrum. Control Syst., Vol. 43*, pp. 124–126, 1970.
- [847] A.W. Lohmann and D.P. Paris. Binary Fraunhofer holograms, generated by computer. *Applied Optics*, pp. 1739–1748, 1967.
- [848] A.W. Lohmann. The space-bandwidth product applied to spatial filtering and to holography. *IBM Research Paper, RJ-438*, 1967.
- [849] A.W. Lohmann and D.P. Paris. Computer generated spatial filters for coherent optical data processing. *Applied Optics*, pp. 651–655, 1968.
- [850] A.W. Lohmann. An interferometer based on the Talbot effect. *Optical Communication*, pp. 413–415, 1971.
- [851] A.W. Lohmann. Three-dimensional properties of wave-fields. *Optik*, pp. 105–117, 1978.
- [852] P.J. Loughlin and G.D. Bernard. Cohen-Posch (positive) time-frequency distributions and their application to machine vibration analysis. *Mechanical Systems and Signal Processing, Vol. 11(4)*, pp. 561–576, 1997.
- [853] P.J. Loughlin and K.L. Davidson. Modified Cohen-Lee time-frequency distributions and instantaneous bandwidth of multicomponent signals. *IEEE Transactions on Signal Processing, Vol. 49(6)*, pp. 1153–1165, 2001.
- [854] D.G. Luenberger. **Optimization by Vector Space Methods**. Wiley, New York, 1969.
- [855] H.D. Luke. Zur Entsehung des Abtasttheorems. *Nachr. Techn. Z., Vol. 31*, pp. 271–274, 1978.

- [856] H.D. Luke. The origins of the sampling theorem *IEEE Communications Magazine*, Vol. 37(4), pp. 106–108, 1999.
- [857] W. Lukosz. Optical systems with resolving powers exceeding the classical limit. *Journal of the Optical Society America*, Vol. 56, pp. 1463–1472, 1966.
- [858] W. Lukosz. Optical systems with resolving powers exceeding the classical limit, II. *Journal of the Optical Society America*, Vol. 57, pp. 932–941, 1967.
- [859] A. Luthra. Extension of Parseval's relation to nonuniform sampling. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-36, No. 12, pp. 1909–1911, 1988.

M

- [860] Y.J. Ma and J.T. Sun. Stability criteria of delay impulsive systems on time scales. *Nonlinear Analysis—Theory Methods & Applications*, Vol. 67(4), pp. 1181–1189, 2007.
- [861] D.M. Mackay. Quantal aspects of scientific information. *Phil. Mag.*, pp. 289–311, 1950.
- [862] D.M. Mackay. The structural information-capacity of optical instruments. *Information & Control*, pp. 148–152, 1958.
- [863] J. Maeda and K. Murata. Digital restoration of incoherent bandlimited images. *Applied Optics*, pp. 2199–2204, 1982.
- [864] H. Maitre. Iterative super-resolution. Some new fast methods. *Opt. Acta*, pp. 973–980, 1981.
- [865] Robert J. Mailloux. **Phased Array Antenna Handbook**, Second Edition. Artech House Publishers; 2 edition, 2005.
- [866] J. Makhoul. Linear prediction: A tutorial review. *Proceedings IEEE*, Vol. 63, pp. 561–580, 1975.
- [867] T. Mallon. **A Book of One's Own**. Ticknor & Fields, New York, 1984.
- [868] N.J. Malloy. Nonuniform sampling for high resolution spectrum analysis. In *Proceedings ICASSP'84*, 1984.
- [869] L. Mandel and E. Wolf. Coherence properties of optical fields. *Rev. Mod. Phys.*, pp. 231–287, 1965.
- [870] L. Mandel and E. Wolf. Spectral coherence and the concept of cross-spectral purity. *Journal of the Optical Society America*, Vol. 66, pp. 529–535, 1976.
- [871] Thomas Mann. **The Magic Mountain**. Vintage; 1st Vintage International Edition, 1996.
- [872] M. Maqusi. A sampling theorem for dyadic stationary processes. *IEEE Transactions Acoust. Speech, Signal Processing*, Vol. ASSP-26, pp. 265–267, 1978.
- [873] M. Maqusi. Truncation error bounds for sampling expansions of sequency band limited signals. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-26, pp. 372–374, 1978.
- [874] M. Maqusi. Sampling representation of sequency bandlimited nonstationary random processes. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-28, pp. 249–251, 1980.
- [875] M. Maqusi. Correlation and spectral analysis of nonlinear transformation of sequency bandlimited signals. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-30, pp. 513–516, 1982.
- [876] I. Maravic and M. Vetterli. Sampling and reconstruction of signals with finite rate of innovation in the presence of noise. *IEEE Transactions on Signal Processing*, Vol. 52(8), Part 1, pp. 2788–2805, 2005.
- [877] E.W. Marchand and E. Wolf. Radiometry with sources of any state of coherence. *Journal of the Optical Society America*, Vol. 64, pp. 1219–1226, 1974.
- [878] A. Maréchal and M. Françon. **V Diffraction, structure des images**. Masson, Paris, 1970.
- [879] H. Margenau and R.N. Hill. Correlation between measurements in quantum theory. *Progress in Theoretical Physics*, Vol. 26, pp. 722–738, 1961.
- [880] C.P. Mariadassou and B. Yegnanarayana. Image reconstruction from noisy digital holograms. *IEE Proceedings F on Radar and Signal Processing*, Vol. 137(5), pp. 351–356, 1990.
- [881] J.W. Mark and T.D. Todd. A nonuniform sampling approach to data compression. *IEEE Transactions Communications*, Vol. COM-29, pp. 24–32, 1981.
- [882] W.D. Mark. Spectral analysis of the convolution and filtering of non-stationary stochastic processes. *Journal Sound Vib*. Vol. 11, pp. 19–63, 1970.

- [883] J.D. Markel and H.H. Gray, Jr. **Linear Prediction of Speech**. Springer-Verlag, New York, 1982.
- [884] R.J. Marks II and T.F. Krile. Holographic representations of space-variant systems: System theory. *Applied Optics*, Vol. 15, pp. 2241–2245, 1976.
- [885] R.J. Marks II, J.F. Walkup, and M.O. Hagler. A sampling theorem for space-variant systems. *Journal of the Optical Society America*, Vol. 66, pp. 918–921, 1976.
- [886] R.J. Marks II, J.F. Walkup, and T.F. Krile. Ambiguity function display: An improved coherent processor. *Applied Optics* Vol. 16, pp. 746–750, 1977.
- [887] R.J. Marks II, J.F. Walkup, and M.O. Hagler. Line spread function notation. *Applied Optics*, Vol. 15, pp. 2289–2290, 1976.
- [888] R.J. Marks II, J.F. Walkup, and M.O. Hagler. Volume hologram representation of space-variant systems. In **Applications of Holography and Optical Data Processing**, E. Marom, A.A. Friesem, and E. Wiener-Aunear, editors, Oxford: Pergamon Press, pp. 105–113, 1977.
- [889] R.J. Marks II, J.F. Walkup, and M.O. Hagler. Sampling theorems for linear shift-variant systems. *IEEE Transactions Circuits & Systems*, Vol. CAS-25, pp. 228–233, 1978.
- [890] R.J. Marks II, G.L. Wise, D.G. Haldeman, and J.L. Whited. Detection in Laplace noise. *IEEE Transactions on Aerospace and Electronic Systems*, Vol. AES-14, pp. 866–872, 1978.
- [891] R.J. Marks II and J.N. Larson. One-dimensional Mellin transformation using a single optical element. *Applied Optics*, Vol. 18, pp. 754–755, 1979.
- [892] R.J. Marks II. Two-dimensional coherent space-variant processing using temporal holography. *Applied Optics*, Vol. 18, pp. 3670–3674, 1979.
- [893] R.J. Marks II, J.F. Walkup, and M.O. Hagler. Methods of linear system characterization through response cataloging. *Applied Optics*, Vol. 18, pp. 655–659, 1979.
- [894] R.J. Marks II and M.W. Hall. Ambiguity function display using a single 1-D input. in **SPIE Milestone Series: Phase Space Optics**, Markus Testorf, Jorge Ojeda-Castañeda, and Adolf Lohmann, Editors, (The Society of Photo-Optical Instrumentation Engineers, Bellingham, WA, 2006) reprinted from *Applied Optics*, Vol. 18(15), pp. 2539–2540, 1979.
- [895] R.J. Marks II and D.K. Smith. An iterative coherent processor for bandlimited signal extrapolation. *Proceedings of the 1980 International Computing Conference*, Washington D.C., 1980.
- [896] R.J. Marks II. Coherent optical extrapolation of two-dimensional signals: processor theory. *Applied Optics*, Vol. 19, pp. 1670–1672, 1980.
- [897] R.J. Marks II. Gerchberg's extrapolation algorithm in two dimensions. *Applied Optics*, Vol. 20, pp. 1815–1820, 1981.
- [898] R.J. Marks II. Sampling theory for linear integral transforms. *Opt. Letters*, Vol. 6, pp. 7–9, 1981.
- [899] R.J. Marks II and M.J. Smith. Closed form object restoration from limited spatial and spectral information. *Opt. Letters*, Vol. 6, pp. 522–524, 1981.
- [900] R.J. Marks II and M.W. Hall. Differintegral interpolation from a bandlimited signal's samples. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-29, pp. 872–877, 1981.
- [901] R.J. Marks II. Posedness of a bandlimited image extension problem in tomography. *Opt. Letters*, Vol. 7, pp. 376–377, 1982.
- [902] R.J. Marks II. Restoration of continuously sampled bandlimited signals from aliased data. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-30, pp. 937–942, 1982.
- [903] R.J. Marks II and D. Kaplan. Stability of an algorithm to restore continuously sampled bandlimited images from aliased data. *Journal of the Optical Society America*, Vol. 73, pp. 1518–1522, 1983.
- [904] R.J. Marks II. Noise sensitivity of bandlimited signal derivative interpolation. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-31, pp. 1029–1032, 1983.
- [905] R.J. Marks II. Restoring lost samples from an oversampled bandlimited signal. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-31, pp. 752–755, 1983.
- [906] R.J. Marks II and D. Radbel. Error in linear estimation of lost samples in an oversampled bandlimited signal. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-32, pp. 648–654, 1984.

- [907] R.J. Marks II and D.K. Smith. Gerchberg-type linear deconvolution and extrapolation algorithms. In **Transformations in Optical Signal Processing**, W.T. Rhodes, J.R. Fienup, and B.E.A. Saleh, editors, *Vol. 373*, pp. 161–178, 1984.
- [908] R.J. Marks II and S.M. Tseng. Effect of sampling on closed form bandlimited signal interval interpolation. *Applied Optics*, *Vol. 24*, pp. 763–765, Erratum, *Vol. 24*, p. 2490, 1985.
- [909] R.J. Marks II. A class of continuous level associative memory neural nets. in **SPIE Milestone Series: Selected Papers in Optical Neural Networks** edited by Suganda Jutamulia (The Society of Photo-Optical Instrumentation Engineers, Bellingham, WA, 1994), pp. 331–336; reprinted from *Applied Optics*, *Vol. 26*, pp. 2005–2009, 1987.
- [910] R.J. Marks II. Linear coherent optical removal of multiplicative periodic degradations: processor theory. *Opt. Engineering*, *Vol. 23*, pp. 745–747, 1984.
- [911] R.J. Marks II. Multidimensional signal sample dependency at Nyquist densities. *Journal of the Optical Society America A*, *Vol. 3*, pp. 268–273, 1986.
- [912] R.J. Marks II. Class of continuous level associative memory neural nets. *Applied Optics*, pp. 2005–2010, 1987.
- [913] R.J. Marks II, S. Oh, and L.E. Atlas. Alternating projection neural networks. *IEEE Transactions on Circuits and Systems*, *Vol. 36*, pp. 846–857, 1989.
- [914] R.J. Marks II, L.E. Atlas, and S. Oh. Optical neural net memory. U.S. Patent No. 4,849,940 (assigned to the Washington Technology Center, University of Washington, Seattle), 1989.
- [915] R.J. Marks II. **Introduction to Shannon Sampling and Interpolation Theory**. Springer-Verlag, New York, 1991.
- [916] R.J. Marks II, Editor, **Advanced Topics in Shannon Sampling and Interpolation Theory**. Springer-Verlag, 1993.
- [917] R.J. Marks II, Loren Laybourn, Shinhak Lee, and Seho Oh. Fuzzy and extra-crisp alternating projection onto convex sets (POCS). *Proceedings of the International Conference on Fuzzy Systems (FUZZ-IEEE)*, Yokohama, Japan, pp. 427–435, 1995.
- [918] R.J. Marks II, Alternating Projections onto Convex Sets, in **Deconvolution of Images and Spectra**, edited by Peter A. Jansson, (Academic Press, San Diego), pp. 476–501, 1997.
- [919] R.J. Marks II. *Method and Apparatus for Generating Sliding Tapered Windows and Sliding Window Transforms*. U.S. Patent No. 5,373,460, 1994.
- [920] R.J. Marks II, B.B. Thompson, M.A. El-Sharkawi, W.L.J. Fox, and R.T. Miyamoto. Stochastic resonance of a threshold detector: image visualization and explanation. *IEEE Symposium on Circuits and Systems*, ISCAS, pp. IV-521–523, 2002.
- [921] R.J. Marks II, Ian A. Gravagne, and John M. Davis, “A Generalized Fourier Transform and Convolution on Time Scales,” *Journal of Mathematical Analysis and Applications*, *Vol. 340(2)*, pp. 901–919, 2008.
- [922] R.J. Marks II, Ian Gravagne, John M. Davis, and Jeffrey J. DaCunha. Nonregressivity in switched linear circuits and mechanical systems. *Mathematical and Computer Modelling*, *Vol. 43*, pp. 1383–1392, 2006.
- [923] L. Marple, T. Brotherton, R. Barton, E. Lugo, and D. Jones. Travels through the time-frequency zone: advanced Doppler ultrasound processing techniques. 1993 Conference Record of The Twenty-Seventh Asilomar Conference on Signals, Systems and Computers, 1993. 1–3 *Vol.2*, pp. 1469–1473, 1993.
- [924] M. Marques, A. Neves, J.S. Marques *et al.* The Papoulis-Gerchberg algorithm with unknown signal bandwidth. *Lecture Notes in Computer Science*. 4141, pp. 436–445, 2006.
- [925] Alan G. Marshall. **Fourier, Hadamard, and Hilbert Transforms in Chemistry**. Perseus Publishing, 1982.
- [926] A.G. Marshall and F.R. Verdun. **Fourier transforms in NMR, Optical and Mass Spectrometry**. Elsevier, Amsterdam, 1990.
- [927] R.J. Martin. Volterra system identification and Kramer’s sampling theorem. *IEEE Transactions on Signal Processing*, *Vol. 47(11)*, pp. 3152–3155, 1999.
- [928] H.G. Martinez and T.W. Parks. A class of infinite-duration impulse response digital filters for sampling rate reduction. *IEEE Transactions Acoust., Speech, Signal Processing*, *Vol. ASSP-27*, pp. 154–162, 1979.

- [929] S.A. Martucci. Symmetric convolution and the discrete sine and cosine transforms. *IEEE Transactions Sig. Processing*, SP-42, 1038–1051 1994.
- [930] F. Marvasti. The extension of Poisson sum formula to nonuniform samples. *Proceedings 5th Aachener Kolloquium, Aachen, Germany*, 1984.
- [931] F. Marvasti. A note on modulation methods related to sine wave crossings. *IEEE Transactions Communications*, pp. 177–178, 1985.
- [932] F. Marvasti. Reconstruction of a signal from the zero-crossings of an FM signal. *Transactions IECE of Japan*, p. 650, 1985.
- [933] F. Marvasti. Signal recovery from nonuniform samples and spectral analysis of random samples. In *IEEE Proceedings on ICASSP, Tokyo*, pp. 1649–1652, 1986.
- [934] F. Marvasti. Spectral analysis of random sampling and error free recovery by an iterative method. *IECE Transactions of Institute Electron. Commun. Eng., Japan (Section E), Vol. E 69, No. 2*, 1986.
- [935] F. Marvasti. A unified approach to zero-crossings, nonuniform and random sampling of signals and systems. In *Proceedings of the International Symposium on Signal Processing and Its Applications, Brisbane, Australia*, pp. 93–97, 1987.
- [936] F. Marvasti. Minisymposium on zero-crossings and nonuniform sampling, In *Abstract of 4 presentations in the Proceedings of SIAM Annual Meeting, Minneapolis, Minnesota*, 1988.
- [937] F. Marvasti. Analysis and recovery of sample-and-hold signals with irregular samples. In *Annual Proceedings of the Allerton Conference on Communication, Control and Computing*, 1989.
- [938] F. Marvasti. Minisymposium on nonuniform sampling for 2-D signals. In *Abstract of 4 presentations in the Proceedings of SIAM Annual Meeting, San Diego, California*, 1989.
- [939] F. Marvasti. Rebuttal on the comment on the properties of two-dimensional bandlimited signals. *Journal of the Optical Society America A, Vol. 6, No. 9*, p. 1310, 1989.
- [940] F. Marvasti. Reconstruction of 2-D signals from nonuniform samples or partial information. *Journal of the Optical Society America A, Vol. 6*, pp. 52–55, 1989.
- [941] F. Marvasti. Relationship between discrete spectrum of frequency modulated (FM) signals and almost periodic modulating signals. *Transactions IECE Japan*, pp. 92–94, 1989.
- [942] F. Marvasti. Spectral analysis of nonuniform samples of irregular samples of multidimensional signals. In *6th Workshop on Multidimensional Signal Processing, California*, 1989.
- [943] F. Marvasti. Extension of Lagrange interpolation to 2-D signals in polar coordinates. *IEEE Transactions Circuits & Systems*, 1990.
- [944] F. Marvasti. The interpolation of 2-D signals from their isolated zeros. *Journal Multidimensional Systems and Signal Processing*, 1990.
- [945] F. Marvasti and M. Analoui. Recovery of signals from nonuniform samples using iterative methods. In *IEEE Proceedings of International Conference on Circuits and Systems, Oregon*, 1989.
- [946] F. Marvasti, M. Analoui, and M. Gamshadzahi. Recovery of signals from nonuniform samples using iterative methods. *IEEE Transactions Acoust., Speech, Signal Processing*, 1991.
- [947] F. Marvasti, Peter Clarkson, Dobcik Miraslov, and Chuande Liu. Speech recovery from missing samples. In *Proceedings IASTED Conference on Control and Modeling, Tehran, Iran*, 1990.
- [948] F. Marvasti and Reda Siereg. Digital signal processing using FM zero-crossing. In *Proceedings of IEEE International Conference on Systems Engineering, Wright State University*, 1989.
- [949] F.A. Marvasti. Spectrum of nonuniform samples. *Electron. Letters, Vol. 20, No. 2*, 1984.
- [950] F.A. Marvasti. Comments on a note on the predictability of bandlimited processes. *Proceedings IEEE, Vol. 74*, p. 1596, 1986.
- [951] F.A. Marvasti. *A Unified Approach to Zero-Crossing and Nonuniform Sampling of Single and Multidimensional Signals and Systems*. Nonuniform Publications, Oak Park, IL, 1987.
- [952] F.A. Marvasti and A.K. Jain. Zero crossings, bandwidth compression and restoration of nonlinearly distorted bandlimited signals. *Journal of the Optical Society America A, Vol. 3*, pp. 651–654, 1986.
- [953] F.A. Marvasti. Extension of Lagrange interpolation to 2-D nonuniform samples in polar coordinates. *IEEE Transactions Circuits & Systems, Vol. 37, No. 4*, pp. 567–568, 1990.

- [954] F.A. Marvasti and Liu Chuande. Parseval relationship of nonuniform samples of one and two-dimensional signals. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. 38, No. 6, pp. 1061–1063, 1990.
- [955] F.A. Marvasti. Oversampling as an alternative to error correction codes. *Minisymposium on Sampling Theory and Practice, SIAM Annual Meeting, Chicago, IL*, July 1990. Also in ICC'92, Chicago, IL, 1992.
- [956] F.A. Marvasti and T.J. Lee. Analysis and recovery of sample-and -hold and linearly interpolated signals with irregular samples. *IEEE Transactions Signal Processing*, Vol. 40, No. 8, pp. 1884–1891, 1992.
- [957] Farokh A. Marvasti. **Nonuniform Sampling: Theory and Practice (Information Technology: Transmission, Processing, and Storage)**. Kluwer Academic/Plenum Publishers, 2001.
- [958] E. Masry. Random sampling and reconstruction of spectra. *Inf. Contr.*, Vol. 19, pp. 275–288, 1971.
- [959] E. Masry. Alias-free sampling: an alternative conceptualization and its applications. *IEEE Transactions Information Theory*, Vol. IT-24, 1978.
- [960] E. Masry. Poisson sampling and spectral estimation of continuous time processes. *IEEE Transactions Information Theory*, Vol. IT-24, 1978.
- [961] E. Masry. The reconstruction of analog signals from the sign of their noisy samples. *IEEE Transactions Information Theory*, Vol. IT-27, pp. 735–745, 1981.
- [962] E. Masry. The approximation of random reference sequences to the reconstruction of clipped differentiable signals. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-30, pp. 953–963, 1982.
- [963] E. Masry and S. Cambanis. Bandlimited processes and certain nonlinear transformations. *Journal Math. Anal.*, Vol. 53, pp. 59–77, 1976.
- [964] E. Masry and S. Cambanis. Consistent estimation of continuous time signals from nonlinear transformations of noisy samples. *IEEE Transactions Information Theory*, Vol. IT-27, pp. 84–96, 1981.
- [965] E. Masry, D. Kramer, and C. Mirabile. Spectral estimation of continuous time process: performance comparison between periodic and Poisson sampling schemes. *IEEE Transactions Automatic Control*, Vol. AC-23, pp. 679–685, 1978.
- [966] Georges Matheron, **Random Sets and Integral Geometry**, John Wiley & Sons, New York, 1975.
- [967] J. Mathews and R.L. Walker. **Mathematical Methods of Physics**, 2nd ed. W.A. Benjamin, Menlo Park, CA, 1970.
- [968] D. Maurice. **Convolution and Fourier Transforms for Communications Engineers**. John Wiley & Sons, 1976.
- [969] A.C. McBride and F.H. Kerr. On Namias's fractional Fourier transform. *IMA J. Applied Math.*, Vol. 39, pp. 159–175, 1987.
- [970] James H. McClellan. The Design of Two Dimensional Filters by Transformation. *Proceedings 7th Annual Princeton Conference on Information Sciences and Systems*, pp. 247–251, 1973.
- [971] James H. McClellan and David S.K. Chan. A 2-D FIR Filter Structure Derived from the Chebyshev Recursion. *IEEE Transactions on Circuits and Systems*, CAS-24, No. 7, pp. 372–378, 1977.
- [972] M.J. McDonnell. A sampling function appropriate for deconvolution. *IEEE Transactions Information Theory*, Vol. IT-22, pp. 617–621, 1976.
- [973] K.C. McGill and L.J. Dorfman. High-resolution alignment of sampled waveforms. *IEEE Transactions Biomedical Engineering*, Vol. BME-31, pp. 462–468, 1984.
- [974] J. McNamee, F. Stenger, and E.L. Whitney. Whittaker's cardinal function in retrospect. *Math. Comp.* Vol. 25, pp. 141–154, 1971.
- [975] A.K. Menon and Z.E. Boutaghou. Time-frequency analysis of tribological systems – part I: implementation and interpretation. *Tribological International*. Vol. 31(9), pp. 501–510, 1998.
- [976] W.F.G. Mechlenbräuker, Russell M. Mersereau, McClellan Transformation for 2-D Digital Filtering: I-Implementation. *IEEE Transactions on Circuits and Systems*, CAS-23, No. 7, pp. 414–422, 1976.

- [977] Alfred Mertins. **Signal Analysis: Wavelets, Filter Banks, Time-Frequency Transforms and Applications**. Wiley, 1999.
- [978] F.C. Mehta. A general sampling expansion. *Inform. Sci., Vol. 16*, pp. 41–44, 1978.
- [979] P.M. Mejías and R. Martínez Herrero. Diffraction by one-dimensional Ronchi grids: on the validity of the Talbot effect. *Journal of the Optical Society America A, Vol. 8*, pp. 266–269, 1991.
- [980] Russell M. Mersereau, W.F.G. Mechlenbräuker, and T.F. Quatieri. McClellan Transformation for 2-D Digital Filtering: I-Design. *IEEE Transactions on Circuits and Systems, CAS-23*, No. 7, pp. 405–414, 1976.
- [981] R.M. Mersereau. The processing of hexagonally sampled two dimensional signals. *Proceedings IEEE, Vol. 67*, pp. 930–949, 1979.
- [982] R.M. Mersereau and T.C. Speake. The processing of periodically sampled multidimensional signals. *IEEE Transactions Acoust., Speech, Signal Processing, Vol. ASSP-31, No. 31*, pp. 188–194, 1983.
- [983] D. Middleton. **An Introduction to Statistical Communication Theory**. McGraw-Hill, New York, 1960.
- [984] D. Middleton and D.P. Peterson. A note on optimum presampling filters. *IEEE Transactions Circuit Theory, Vol. CT-10*, pp. 108–109, 1963.
- [985] J. Millet-Roig, J.J. Rieta-Ibanez, E. Vilanova, A. Mocholi, and F.J. Chorro. Time-frequency analysis of a single ECG: to discriminate between ventricular tachycardia and ventricular fibrillation. *Computers in Cardiology 1999*, 26–29 pp. 711–714, 1999.
- [986] R. Mintzer and B. Liu. Aliasing error in the design of multirate filters. *IEEE Transactions Acoust., Speech, Signal Processing, Vol. ASSP-26*, pp. 76–88, 1978.
- [987] R. Mirman. **Point Groups, Space Groups, Crystals, Molecules**. World Scientific, 1999.
- [988] S. Mitaim and B. Kosko. Adaptive stochastic resonance. *Proceedings of the IEEE. Vol. 86, No. 11*, 1998.
- [989] J.R. Mitchell and W.L. McDaniel Jr. Adaptive sampling technique. *IEEE Transactions Automatic Control, Vol. AC-14*, pp. 200–201, 1969.
- [990] J.R. Mitchell and W.L. McDaniel Jr. Calculation of upper bounds for errors of an approximate sampled frequency response. *IEEE Transactions Automatic Control, Vol. AC-19*, pp. 155–156, 1974.
- [991] Sanjit K. Mitra. **Digital Signal Processing**, McGraw-Hill Science/Engineering/Math; 3rd edition 2005.
- [992] H. Miyakawa. Sampling theorem of stationary stochastic variables in multi-dimensional space (Japanese). *Journal Institute Electron. Commun. Engineering Japan, Vol. 42*, pp. 421–427, 1959.
- [993] K. Miyamoto. On Gabor's expansion theorem. *Journal of the Optical Society America, Vol. 50*, pp. 856–858, 1960.
- [994] K. Miyamoto. Note on the proof of Gabor's expansion theorem. *Journal of the Optical Society America, Vol. 51*, pp. 910–911, 1961.
- [995] W.D. Montgomery. The gradient in the sampling of n -dimensional bandlimited functions. *Journal Electron. Contr., Vol. 17*, pp. 437–447, 1964.
- [996] W.D. Montgomery. Algebraic formulation of diffraction applied to self-imaging. *Journal of the Optical Society America, Vol. 58*, pp. 1112–1124, 1968.
- [997] D.R. Mook, G.V. Fisk, and A.V. Oppenheim. A hybrid numerical-analytical technique for the computation of wave fields in stratified media based on the Hankel transform. *Journal Acoustics. Society America, Vol. 76, No. 1*, pp. 222–243, 1984.
- [998] N. Moray, G. Synnock, and S. Richards. Tracking a static display. *IEEE Transactions Systems, Man, Cybernetics, Vol. SMC-3*, pp. 518–521, 1973.
- [999] Frank Morgan. **Real Analysis and Applications: Including Fourier Series and the Calculus of Variations**. American Mathematical Society, 2005.
- [1000] F. Mori and J. De Steffano III. Optimal nonuniform sampling interval and test-input design for identification of physiological systems from very limited data. *IEEE Transactions Automatic Control, Vol. AC-24, No. 6*, pp. 893–900, 1979.

- [1001] H. Mori, I. Oppenheim, and J. Ross. *Some Topics in Quantum Statistics: The Wigner Function and Transport Theory*. In **Studies in Statistical Mechanics**, J. de Boer and G.E. Uhlenbeck, eds. North-Holland, Amsterdam, Vol. 1, pp. 213–298, 1962.
- [1002] Norman Morrison. **Introduction to Fourier Analysis**. Wiley-Interscience, 1995.
- [1003] G.V. Moustakides and E.Z. Psarakis. Design of N-dimensional hyperquadrantly symmetric FIR filters using the McClellan transform. *IEEE Transactions on Circuits and Systems II: Analog and Digital Signal Processing*, Vol. 42(8), pp. 547–550, 1995.
- [1004] K. Mullen and P.S. Pregosin. **Fourier Transform Nuclear Magnetic Resonance Techniques**. Academic Press, 1977.
- [1005] D.H. Mugler and W. Spletstößer. Difference methods and round-off error bounds for the prediction of bandlimited-functions from past samples. *Frequenz*, Vol. 39, pp. 182–187, 1985.
- [1006] D.H. Mugler and W. Spletstößer. Some new difference schemes for the prediction of bandlimited signals from past samples. In *Proceedings of the Conference “Mathematics in Signal Processing”* Bath, 1985.
- [1007] D.H. Mugler and W. Spletstößer. Difference methods for the prediction of bandlimited signals. *SIAM Journal Applied Math.*, Vol. 46, pp. 930–941, 1986.
- [1008] H.D. Mugler and W. Spletstößer. Linear prediction from samples of a function and its derivatives. *IEEE Transactions Information Theory*, Vol. IT-33, pp. 360–366, 1987.
- [1009] K. Mullen, P.S. Pregosin. **Fourier Transform Nuclear Magnetic Resonance Techniques: A Practical Approach**. Elsevier Science & Technology Books, 1977.
- [1010] N.J. Munch. A Twisted Sampling Theorem. *IMA Journal of Mathematical Control and Information*, Vol. 7(1), pp. 47–57, 1990.
- [1011] D.C. Munson. Minimum sampling rates for linear shift-variant discrete-time systems. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-33, pp. 1556–1561, 1985.
- [1012] P.K. Murphy and N.C. Gallagher. A new approach to two-dimensional phase retrieval. *Journal of the Optical Society America*, Vol. 72, pp. 929–937, 1982.

N

- [1013] T. Nagai. Dyadic stationary processes and their spectral representation. *Bull. Math. Stat.*, Vol. 17, pp. 65–73, 1976/77.
- [1014] N. Nakajima and T. Asakura. A new approach to two-dimensional phase retrieval. *Opt. Acta*, Vol. 32, pp. 647–658, 1985.
- [1015] V. Namias. The fractional order Fourier transform and its applications to quantum mechanics. *J. Institute Math. Applied*, Vol. 25, pp. 241–265, 1980.
- [1016] H. Nassenstein. Super-resolution by diffraction of subwaves. *Optical Communication*, pp. 231–234, 1970.
- [1017] A. Nathan. On sampling a function and its derivatives. *Information & Control*, Vol. 22, pp. 172–182, 1973.
- [1018] A. Nathan. Plain and covariant multivariate Fourier transforms. *Information & Control*, Vol. 39, pp. 73–81, 1978.
- [1019] J.L. Navarro-Mesa, E. Lleida-Solano, and A.A. Moreno-Bilbao. A new method for epoch detection based on the Cohen’s class of time frequency representations. *IEEE Signal Processing Letters*, Vol. 8(8), pp. 225–227, 2001.
- [1020] A.W. Naylor and G.R. Sell. **Linear Operator Theory in Engineering and Science**. Springer-Verlag, New York, 1982.
- [1021] S.A. Neild, P.D. McFadden, and M.S. Williams. A review of time-frequency methods for structural vibration analysis. *Engineering Structures*, Vol. 5(6), pp. 713–728, 2003.
- [1022] Kazuki Nishi. Generalized comb function: a new self-Fourier function. *IEEE International Conference on Acoustics, Speech, and Signal Processing*, 2004. (ICASSP ’04). Vol. 2, pp. 573–576.
- [1023] J. Ojeda-Castañeda, J. Ibarra, and J.C. Barreiro. Noncoherent Talbot effect: Coherence theory and applications. *Optical Communication*, Vol. 71, pp. 151–155, 1989.
- [1024] J. Ojeda-Castañeda and E.E. Sicre. Quasi ray-optical approach to longitudinal periodicities of free and bounded wavefields. *Opt. Acta*, pp. 17–26, 1985.

- [1025] J. Von Neumann. **The Geometry of Orthogonal Spaces**. Princeton University Press, Princeton, New Jersey, 1950.
- [1026] J. Von Neumann. **Mathematical Foundations of Quantum Mechanics**. Princeton University Press, 1955, Chap. 5, Sect. 4.
- [1027] B. Nicoletti and L. Mariani. Optimization of nonuniformly sampled discrete systems. *Automatica*, Vol. 7, pp. 747–753, 1971.
- [1028] K. Niederdrenk. **The Finite Fourier and Walsh Transformation with an Introduction to Image Processing**. Vieweg & Sohn, Braunschweig, 1982.
- [1029] Y. Noguchi, E. Kashiwagi, E. Kashiwagi *et al.* Ultrasound Doppler sinusoidal shift signal analysis by time-frequency distribution with new kernel. *Japanese Journal of Applied Physics Part 1*, Vol. 37(5B), pp. 3064–3067, Sp. Iss. SI 1998.
- [1030] Y. Noguchi, E. Kashiwagi, K. Watanabe *et al.* Time-frequency analysis of the blood flow Doppler ultrasound signal. *Japanese Journal of Applied Physics Part 1*, Vol. 40(5B), pp. 3882–3887, 2001.
- [1031] Stephen Abbott Northrop. **A Cloud of Witnesses**. (Portland, Oregon: American Heritage Ministries, 1987; Mantle Ministries, 228 Still Ridge, BuIverde, Texas), pp. 147–8.
- [1032] K.A. Nugent. Three-dimensional optical microscopy: a sampling theorem. *Optical Communication*, pp. 231–234, 1988.
- [1033] H. Nyquist. Certain topics in telegraph transmission theory. *AIEE Transactions*, Vol. 47, pp. 617–644, 1928.
- [1034] D. Nguyen and M. Swamy. Formulas for parameter scaling in the McClellan transform. *IEEE Transactions on Circuits and Systems*, Vol.33(1), pp. 108–109, 1986.
- [1035] D. Nguyen and M. Swamy. A class of 2-D separable denominator filters designed via the McClellan transform. *IEEE Transactions on Circuits and Systems*, Vol. 33(9), pp. 874–881, 1986.

O

- [1036] K. Ogura. On a certain transcendental integral function in the theory of interpolation. *Tôhoku Math. J.*, Vol. 17, pp. 64–72, 1920.
- [1037] S. Oh, R.J. Marks II, L.E. Atlas and J.W. Pitton. Kernel synthesis for generalized time-frequency distributions using the method of projection onto convex sets. SPIE Proceedings 1348, **Advanced Signal Processing Algorithms, Architectures, and Implementation**, F.T. Luk, Editor, San Diego, pp. 197–207, 1990.
- [1038] S. Oh and R.J. Marks II. Performance attributes of generalized time-frequency representations with double diamond and cone shaped kernels. *Proceedings of the Twenty Fourth Asimomar Conference on Signals, Systems and Computers*, 5–7 November, 1990, Asilomar Conference Grounds, Monterey, California.
- [1039] S. Oh, R.J. Marks II, and Dennis Sarr. Homogeneous alternating projection neural networks. *Neurocomputing*, Vol. 3, pp. 69–95, 1991.
- [1040] S. Oh, C.Ramon, M.G. Meyer, A. C. Nelson, and R.J. Marks II. Resolution enhancement of biomagnetic images using the method of alternating projections. *IEEE Transactions on Biomedical Engineering*, Vol. 40, No. 4, pp. 323–328, 1993.
- [1041] S. Oh and R.J. Marks II. Alternating projections onto fuzzy convex sets. *Proceedings of the Second IEEE International Conference on Fuzzy Systems*, (FUZZ-IEEE '93), San Francisco, Vol.1, pp. 148–155, 1993.
- [1042] S. Oh and R.J. Marks II. Some properties of the generalized time frequency representation with cone shaped kernels. *IEEE Transactions on Signal Processing*, Vol.40, No.7, pp. 1735–1745, 1992.
- [1043] S. Oh, R.J. Marks II, and L.E. Atlas. Kernel synthesis for generalized time-frequency distributions using the method of alternating projections onto convex sets. *IEEE Transactions on Signal Processing*, Vol. 42, No.7, pp. 1653–1661, 1994.
- [1044] N. Ohyama, M. Yamaguchi, J. Tsujiuchi, T. Honda, and S. Hiratsuka. Suppression of Moiré fringes due to sampling of halftone screened images. *Optical Communication*, pp. 364–368, 1986.

- [1045] K.B. Oldham and J. Spanier. **The Fractional Calculus**. Academic Press, New York, 1974.
- [1046] A.Y. Olenko and T.K. Pogany. Time shifted aliasing error upper bounds for truncated sampling cardinal series. *Journal of Mathematical Analysis and Applications*, Vol. 324(1), pp. 262–280, 2006.
- [1047] B.L. Ooi, S. Kooi, and Leong M.S. Application of Sonie-Schafheitlin formula and sampling theorem in spectral-domain method. *IEEE Transactions on Microwave Theory and Techniques*, 49(1), pp. 210–213, 2001.
- [1048] E.L. O’Neill. Spatial filtering in optics. *IRE Transactions Information Theory*, pp. 56–62, 1956.
- [1049] E.L. O’Neill. **Introduction to Statistical Optics**. Addison-Wesley, Reading, MA, 1963.
- [1050] E.L. O’Neill and A. Walther. The question of phase in image formation. *Opt. Acta*, pp. 33–40, 1962.
- [1051] L. Onural. Exact analysis of the effects of sampling of the scalar diffraction field. *Journal of the Optical Society of America A – Optics, Image Science and Vision*, Vol. 24(2), pp. 359–367, 2007.
- [1052] Z. Opial. Weak convergence of the sequence of successive approximation for nonexpansive mappings. *Bull. Amer. Math. Society*, Vol. 73, pp. 591–597, 1967.
- [1053] A.V. Oppenheim and R.W. Shafer. **Digital Signal Processing**. Prentice-Hall, Englewood Cliffs, NJ, 1975 - updated in [1054].
- [1054] A.V. Oppenheim, R.W. Schafer, and J.R. Buck, **Discrete-Time Signal Processing, second edition** (Prentice-Hall, New Jersey, 1999)–an updated version of [1053].
- [1055] A.V. Oppenheim. Digital processing of speech. In **Applications of Digital Signal Processing**. Prentice-Hall, Englewood Cliffs, NJ, 1978.
- [1056] A.V. Oppenheim, Alan, S. Willsky, and Ian T. Young. **Signals and Systems**. Prentice-Hall, Englewood Cliffs, NJ, 1983.
- [1057] J.F. Ormsky. Generalized interpolation sampling expressions and their relationship. *Journal Franklin Institute*, Vol. 310, pp. 247–257, 1980.
- [1058] L. Stankovic, T. Alieva, and M.J. Bastiaans. Time-frequency signal analysis based on the windowed fractional Fourier transform. *Signal Processing*, Vol. 83(11), pp. 2459–2468, 2003.
- [1059] Radomir S. Stankovic, Claudio Moraga, and Jaakko Astola. **Fourier Analysis on Finite Groups with Applications in Signal Processing and System Design**. Wiley-IEEE Press, 2005.
- [1060] P. Oskoui-Fard, H. Stark. Geometry-free X-ray reconstruction using the theory of convex projections 1988 International Conference on Acoustics, Speech, and Signal Processing, ICASSP–88., pp. 871–874, 1988.
- [1061] T.J. Osler. A further extension of the Leibnitz rule for fractional derivatives and its relation to Parseval’s formula. *SIAM J. Math. Anal.*, Vol. 4, No. 4, 1973.
- [1062] L.E. Ostrander. The Fourier transform of spline function approximations to continuous data. *IEEE Transactions Audio Electroacoustics.*, Vol. AU-19, pp. 103–104, 1971.
- [1063] J.S. Ostrem. A sampling series representation of the gain and refractive index formulas for a combined homogeneously and inhomogeneously broadened laser line. *Proceedings IEEE*, Vol. 66, pp. 583–589, 1978.
- [1064] N. Ostrowsky, D. Sornette, P. Parker, and E.R. Pike. Exponential sampling method for light scattering polydispersity analysis. *Opt. Acta*, Vol. 28, pp. 1059–1070, 1981.
- [1065] M.K. Ozkan, A.M. Tekalp, and M.I. Sezan. POCS-based restoration of space-varying blurred images. *IEEE Transactions on Image Processing*, Vol. 3(4), pp. 450–454, 1994.
- [1066] H.M. Ozaktas, O. Arikan, M.A. Kutay, and G. Bozdogt. Digital computation of the fractional Fourier transform. *IEEE Transactions on Signal Processing*, Vol. 44(9), pp. 2141–2150, 1996.
- [1067] H.M. Ozaktas, N. Erkaya, and M.A. Kutay. Effect of fractional Fourier transformation on time-frequency distributions belonging to the Cohen class. *IEEE Signal Processing Letters*, Vol. 3(2), pp. 40–41, 1996.
- [1068] Haldun M. Ozaktas, Zeev Zalevsky, and M. Alper. **The Fractional Fourier Transform: with Applications in Optics and Signal Processing**, John Wiley & Sons, 2001.

P

- [1069] Hoon Paek, Rin-Chul Kim, and Sang-Uk Lee. On the POCS-based postprocessing technique to reduce the blocking artifacts in transform coded images. *IEEE Transactions on Circuits and Systems for Video Technology*, Vol. 8(3), pp. 358–367, 1998.
- [1070] C.H. Page. Instantaneous Power Spectra. *Jour. Applied Phys.*, Vol.23, pp. 103–106, 1952.
- [1071] R.E.A. Paley and N. Wiener. **Fourier Transform in Complex Domain**. Colloq. Publications, American Math. Society, New York, Vol. 19, 1934.
- [1072] F. Palmieri. Sampling theorem for polynomial interpolation. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-34, pp. 846–857, 1986.
- [1073] T. Pappas. Mersenne's Number. **The Joy of Mathematics**. San Carlos, CA: Wide World Publ. Tetra, P. 211, 1989.
- [1074] A. Papoulis. **The Fourier Integral and Its Applications**. McGraw-Hill, New York, 1962.
- [1075] A. Papoulis, **Probability, Random Variables, and Stochastic Processes**, McGraw-Hill, NY, 1965.
- [1076] A. Papoulis, **Probability, Random Variables, and Stochastic Processes**, 2nd ed., McGraw-Hill, NY, 1984.
- [1077] A. Papoulis. **Probability, Random Variables, and Stochastic Processes**, 3rd ed. McGraw-Hill, New York, 1991.
- [1078] Papoulis and S.Unnikrishna Pillai. **Probability, Random Variables and Stochastic Processes**. 4th Revised Edition, McGraw Hill, 2002.
- [1079] A. Papoulis. Error analysis in sampling theory. *Proceedings IEEE*, Vol. 54, pp. 947–955, 1966.
- [1080] A. Papoulis. Limits on bandlimited signals. *Proceedings IEEE*, Vol. 55, pp. 1677–1681, 1967.
- [1081] A. Papoulis. Truncated sampling expansions. *IEEE Transactions Automatic Control*, pp. 604–605, 1967.
- [1082] A. Papoulis. **Systems and Transforms with Applications in Optics**. McGraw-Hill, New York, 1968.
- [1083] A. Papoulis and M.S. Bertran. Digital filtering and prolate functions. *IEEE Transactions Circuits & Systems*, Vol. CT-19, pp. 674–681, 1972.
- [1084] A. Papoulis. A new method of image restoration. *Joint Services Technical Activity Report*, 39, 1973–74.
- [1085] A. Papoulis. A new algorithm in spectral analysis and bandlimited signal extrapolation. *IEEE Transactions Circuits & Systems*, Vol. CAS-22, pp. 735–742, 1975.
- [1086] A. Papoulis. Generalized sampling expansion. *IEEE Transactions Circuits & Systems*, Vol. CAS-24, pp. 652–654, 1977.
- [1087] A. Papoulis. **Signal Analysis**. McGraw-Hill, New York, 1977.
- [1088] A. Papoulis. **Circuits and Systems, A Modern Approach**. Holt, Rinehart and Winston, Inc., New York, 1980.
- [1089] A. Papoulis. A note on the predictability of bandlimited processes. *Proceedings IEEE*, Vol. 73, pp. 1332–1333, 1985.
- [1090] G.Y. Park, C.K. Lee, J.T. Kim, K.C. Kwon, and S.J. Lee. Design of a time-frequency distribution for vibration monitoring under corosions in the pipe. *Proceedings Key Engineering Materials for Advanced Nondestructive Evaluations*. pp. 321–323, 1257–1261, 2006.
- [1091] Jiho Park, D.C. Park, R.J. Marks II, and M.A. El-Sharkawi. Block loss recovery in DCT image encoding using POCS. *IEEE International Symposium on Circuits and Systems*, Scottsdale, Arizona, pp. V245–V248, 2002.
- [1092] Jiho Park, R.J. Marks II, D.C. Park, and M.A. El-Sharkawi. Content based adaptive spatio-temporal methods for MPEG repair. *IEEE Transactions on Image Processing*, Vol. 13, # 8, pp. 1066–1077, 2004.
- [1093] Jiho Park, Dong Chul Park, R.J. Marks II, and M.A. El-Sharkawi. Recovery of image blocks using the method of alternating projections. *IEEE Transactions on Image Processing*, 2005.
- [1094] J.B. Park and D.G. Nishimura, Effects of 3D sampling in (k,t)-space on temporal qualities of dynamic MRI . *Magnetic Resonance Imaging*, Vol. 24(8), pp. 1009–1014, 2006.

- [1095] T.W. Parks and R.G. Meier. Reconstructions of signals of a known class from a given set of linear measurements. *IEEE Transactions Information Theory*, Vol. IT-17, pp. 37–44, 1971.
- [1096] E. Parzen. A simple proof and some extensions of sampling theorems. Technical report, Stanford University, Stanford, California, 1956.
- [1097] E. Parzen. **Stochastic Processes**. Holden-Day, San Francisco, 1962.
- [1098] Blaise Pascal, translated by A. J. Krailsheimer. **Pensées**. Penguin Classics; Reissue edition, 1995.
- [1099] C. Pask. Simple optical theory of optical super-resolution. *Journal of the Optical Society America*, Vol. 66, pp. 68–69a, 1976.
- [1100] K. Patorski. The self-imaging phenomenon and its applications. In **Progress in Optics**, North-Holland, Amsterdam, 1989.
- [1101] Soo-Chang Pei, Min-Hung Yeh, and Tzzy-Liang Luo. Fractional Fourier series expansion for finite signals and dual extension to discrete-time fractional Fourier transform. *IEEE Transactions on Signal Processing*, Vol. 47(10), pp. 2883–2888, 1999.
- [1102] Soo-Chang Pei, Min-Hung Yeh, and Chien-Cheng Tseng. Discrete fractional Fourier transform based on orthogonal projections. *IEEE Transactions on Signal Processing*, Vol. 47(5), pp. 1335–1348, 1999.
- [1103] Haidong Peng, Mohammad Sabati, Louis Lauzon, and Richard Frayne. MR image reconstruction of sparsely sampled 3D k-space data by projection-onto-convex sets. *Magnetic Resonance*, Vol. 24(6), pp. 761–773, 2006.
- [1104] Hui Peng and Henry Stark. Signal recovery with similarity constraints. *Journal of the Optical Society of America A*, Vol 6, No.6, pp. 844–851, 1989.
- [1105] L.M. Peng. Sampling theorem and digital electron microscopy. *Progress in Natural Science*, Vol. 7(1), pp. 110–114, 1997.
- [1106] L.E. Pellon. A double Nyquist digital product detector for quadrature sampling. *IEEE Transactions Signal Processing*, Vol. 40, pp. 1670–1681, 1992.
- [1107] I. Pesenson. A sampling theorem on homogeneous manifolds. *Transactions of the American Mathematical Society*, Vol. 352(9), pp. 4257–4269, 2000.
- [1108] R.J. Peterka, D.P. O'leary, and A.C. Sanderson. Practical considerations in the implementation of the French-Holden algorithm for sampling of neuronal spike trains. *IEEE Transactions Biomedical Engineering*, Vol. BME-24, pp. 192–195, 1978.
- [1109] Terry M. Peters, J. C. Williams, and J. H. Bates, (Editors). **Fourier Transform in Biomedical Engineering** Birkhauser Verlag, 1997.
- [1110] D. P. Petersen. Sampling of space-time stochastic processes with application to information and design systems, Thesis, Rensselaer Polytechnic Inst., Troy, N. Y. 1963.
- [1111] D.P. Petersen. Discrete and fast Fourier transformations on n -dimensional lattices. *Proceedings IEEE*, Vol. 58, 1970.
- [1112] D.P. Petersen and D. Middleton. Sampling and reconstruction of wave number-limited function in n -dimensional Euclidean spaces. *Inform., Contr.*, Vol. 5, pp. 279–323, 1962.
- [1113] D.P. Petersen and D. Middleton. Reconstruction of multidimensional stochastic fields from discrete measurements of amplitude and gradient. *Information & Control*, Vol. 1, pp. 445–476, 1964.
- [1114] D.P. Petersen and D. Middleton. Linear interpolation, extrapolation and prediction of random space-time fields with limited domain of measurement. *IEEE Transactions Information Theory*, Vol. IT-11, 1965.
- [1115] J. Peřina. Holographic method of deconvolution and analytic continuation. *Czechoslovak J. Phys.*, Vol. B21, pp. 731–748, 1971.
- [1116] J. Peřina and J. Kvapil. A note on holographic method of deconvolution. *Optik*, pp. 575–577, 1968.
- [1117] J. Peřina, V. Perinova, and Z. Braunerova. Super-resolution in linear systems with noise. *Optica Applicata*, pp. 79–83, 1977.
- [1118] E.P. Pfaffelhuber. Sampling series for bandlimited generalized functions. *IEEE Transactions Information Theory*, Vol. IT-17, pp. 650–654, 1971.

- [1119] F. Pichler. Synthese linearer periodisch zeitvariabler Filter mit vorgeschriebenem Sequen-
zverhalten. *Arch. Elek. Übertr. (AEÜ)*, Vol. 22, pp. 150–161, 1968.
- [1120] W.J. Pielemeier and G.H. Wakefield. A high-resolution time-frequency representation for
musical instrument signals. *Journal of the Acoustical Society of America*. Vol. 99(4),
pp. 2382–2396, 1996.
- [1121] W.J. Pielemeier, G.H. Wakefield, and M.H. Simoni. Time-frequency analysis of musical
signals. *Proceedings of the IEEE*. Vol. 84(9), pp. 1216–1230, 1996.
- [1122] Allan Pinkus and Samy Zafrany. **Fourier Series and Integral Transforms**. Cambridge
University Press, 1997.
- [1123] H.S. Piper, Jr. Best asymptotic bounds for truncation error in sampling expansions of band
limited signals. *IEEE Transactions Information Theory*, Vol. IT-21, pp. 687–690, 1975.
- [1124] H.S. Piper, Jr. Bounds for truncation error in sampling expansions of finite energy band limited
signals. *IEEE Transactions Information Theory*, Vol. IT-21, pp. 482–485, 1975.
- [1125] J.W. Pitton, W.L.J. Fox, L.E. Atlas, J.C. Luby, and P.J. Loughlin. Range-Doppler processing
with the cone kernel time-frequency representation communications, computers and signal
processing, 1991., *IEEE Pacific Rim Conference on Vol. 2*, pp. 799–802, 1991.
- [1126] J.W. Pitton and L.E. Atlas. Discrete-time implementation of the cone-kernel time-frequency
representation. *IEEE Transactions on Signal Processing*, Vol. 43(8), pp. 1996–1998, 1995.
- [1127] K. Piwerneta. A *posteriori* compensation for rigid body motion in holographic interferometry
by means of a Moiré technique. *Opt. Acta*, Vol. 24, pp. 201–209, 1977.
- [1128] E. Plotkin, L. Roytman, and M.N.S. Swamy. Non-uniform sampling of bandlimited modulated
signals. *Signal Processing*, Vol. 4, pp. 295–303, 1982.
- [1129] E. Plotkin, L. Roytman, and M.N.S. Swamy. Reconstruction of nonuniformly sampled
bandlimited signals and jitter error reduction. *Signal Processing*, Vol. 7, pp. 151–160, 1984.
- [1130] T. Pogány. On a very tight truncation error bound for stationary stochastic processes. *IEEE
Transactions Signal Processing*, Vol. 39, No. 8, pp. 1918–1919, 1991.
- [1131] R.J. Polge, R.D. Hays, and L. Callas. A direct and exact method for computing the transfer
function of the optimum smoothing filter. *IEEE Transactions Automatic Control*, Vol. AC-18,
pp. 555–556, 1973.
- [1132] H.O. Pollak. Energy distribution of bandlimited functions whose samples on a half line vanish.
Journal Math. Anal., Applied, Vol. 2, pp. 299–332, 1961.
- [1133] Polybius of Megalopolis, **World History**, translated by H. J. Edwards.
- [1134] B. Porat. ARMA spectral estimation of time series with missing observations. *IEEE
Transactions Information Theory*, Vol. IT-30, No. 6, pp. 823–831, 1984.
- [1135] B. Porter and J.J. D’Azzo. Algorithm for closed-loop eigenstructure assignment by state
feedback in multivariable linear systems. *International J. Control*, Vol. 27, pp. 943–947,
1978.
- [1136] R.P. Porter and A.J. Devaney. Holography and the inverse source problem. *Journal of the
Optical Society America*, Vol. 72, pp. 327–330, 1982.
- [1137] M. Pourahmadi. A sampling theorem for multivariate stationary processes. *Journal
Multivariate Anal.*, Vol. 13, pp. 177–186, 1983.
- [1138] F.D. Powell. Periodic sampling of broad-band sparse spectra. *IEEE Transactions Acoustics,
Speech, Signal Processing*, Vol. ASSP-31, pp. 1317–1319, 1983.
- [1139] M. Pracentini and C. Cafforio. Algorithms for image reconstruction after nonuniform
sampling. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-35, No. 8,
pp. 1185–1189, 1987.
- [1140] S. Prasad. Digital superresolution and the generalized sampling theorem, *Journal of the
Optical Society of America A – Optics, Image Science and Vision*, Vol. 24(2), pp. 311–325,
2007.
- [1141] P.M. Prenter. **Splines and Variational Methods**. John Wiley, New York, 1975.
- [1142] R.T. Prosser. A multi-dimensional sampling theorem. *Journal Math. Analysis Applied*, Vol. 16,
pp. 574–584, 1966.
- [1143] R. Probst and R. Goutte. Deconvolution when the convolution kernel has no inverse. *IEEE
Transactions Acoust., Speech, Signal Processing*, pp. 542–549, 1977.

- [1144] M. Protzmann and H. Boche. Convergence proof for the algorithm by Papoulis and Gerchberg. *Frequenz*, Vol. 52(9–10), pp. 175–182, 1998.
- [1145] E.Z. Psarakis, V.G. Mertzios, and G.P. Alexiou. Design of two-dimensional zero phase FIR fan filters via the McClellan transform. *IEEE Transactions on Circuits and Systems*, Vol. 37(1), pp. 10–16, 1990.
- [1146] E.Z. Psarakis and G.V. Moustakides. Design of two-dimensional zero-phase FIR filters via the generalized McClellan transform. *IEEE Transactions on Circuits and Systems*, Vol. 38(11), pp. 1355–1363, 1991.

Q

- [1147] S. Qazi, A. Georgakakis, L.K. Stergioulas, and M. Shikh-Bahaei. Interference suppression in the wigner distribution using fractional Fourier transformation and signal synthesis. *IEEE Transactions on Signal Processing*, Vol. 55(6), Part 2, pp. 3150–3154, 2007.

R

- [1148] S.A. Rabea, B. Sharif, B.S. and S. Sali. Distributed power control algorithm in cellular radio systems using projection onto convex sets 2001 Vehicular Technology Conference. VTC 2001 Fall. *IEEE VTS 54th*, Vol. 2, pp. 757–761, 2001.
- [1149] L.R. Rabiner and R.W. Schafer. **Digital Processing of Speech Signals**. Prentice-Hall, Englewood Cliffs, NJ, 1978.
- [1150] D. Radbel and R.J. Marks II. An FIR estimation filter based on the sampling theorem. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-33, pp. 455–460, 1985.
- [1151] R. Radzyner and P.T. Bason. An error bound for Lagrange interpolation of low pass functions. *IEEE Transactions Information Theory*, Vol. IT-18, pp. 669–671, 1972.
- [1152] J.R. Ragazzini and G.F. Franklin. **Sampled Data Control Systems**. McGraw-Hill, New York, 1958.
- [1153] Y. Rahmat-Samii and R. Cheung. Nonuniform sampling techniques for antenna applications. *IEEE Transactions Antennas & Propagation*, Vol. AP-35, No. 3, pp. 268–279, 1987.
- [1154] P.K. Rajan. A study on the properties of multidimensional Fourier transforms. *IEEE Transactions Circuits & Systems*, Vol. CAS-31, pp. 748–750, 1984.
- [1155] A. Ralston and P. Rabinowitz. **A First Course in Numerical Analysis**, 2nd ed. McGraw Hill, New York, 1978.
- [1156] Dinakar Ramakrishnan and Robert J. Valenza. **Fourier Analysis on Number Fields**. Springer, 1998.
- [1157] Jayakumar Ramanathan. **Methods of Applied Fourier Analysis**. Birkhäuser Boston, 1998.
- [1158] K.R. Rao and P. Yip. **Discrete Cosine Transform: Algorithms, Advantages, Applications**. Academic Press, Boston, 1990.
- [1159] M.D. Rawn. Generalized sampling theorems for Bessel type transforms of bandlimited functions and distributions. *SIAM J. Applied Math.*, Vol. 49, No. 2, pp. 638–649, 1989.
- [1160] M.D. Rawn. On nonuniform sampling expansions using entire interpolating functions and on the stability of Bessel-type sampling expansions. *IEEE Transactions Information Theory*, Vol. 35, No. 3, 1989.
- [1161] M.D. Rawn. A stable nonuniform sampling expansion involving derivatives. *IEEE Transactions Information Theory*, Vol. 35, No. 6, 1989.
- [1162] Lord Rayleigh. On the character of the complete radiation at a given temperature. *Phil. Mag.*, series 5, Vol 27, 1889; reprinted in **Scientific Papers**, Cambridge University Press, Cambridge, England, 1902; later published by Dover Publications, New York, Vol. 3, p. 273, 1964.
- [1163] M.G. Raymer. The Whittaker-Shannon sampling theorem for experimental reconstruction of free-space wave packets. *Journal of Modern Optics*, Vol. 44(11–12), pp. 2565–2574, 1997.
- [1164] M. Reed and B. Simon. **Methods and Modern Mathematical Physics. IV Analysis of Operators**. Academic Press, New York, 1978.
- [1165] G.J. Ren and Y.M. Shi. Asymptotic behaviour of dynamic systems on time scales. *Journal of Difference Equations and Applications*, Vol. 12(12), pp. 1289–1302, 2006.
- [1166] F.M. Reza. **An Introduction to Information Theory**. McGraw-Hill, New York, 1961.

- [1167] A. Requicha. The zeros of entire functions: Theory and engineering applications. *Proceedings of the IEEE*, Vol. 68, No. 3, pp. 308–328, 1980.
- [1168] A. Restrepo, L.F. Zuluaga, and L.E. Pino. Optimal noise levels for stochastic resonance. *Acoustics, Speech, and Signal Processing*, 1997. ICASSP-97, 1997 IEEE International Conference on Vol. 3, pp. 2365–2368, 1997.
- [1169] D.R. Rhodes. The optimum lines source for the best mean-square approximation to a given radiation pattern. *IEEE Transactions Antennas & Propagation*, pp. 440–446, 1963.
- [1170] D.R. Rhodes. A general theory of sampling synthesis. *IEEE Transactions Antennas & Propagation*, pp. 176–181, 1973.
- [1171] W.T. Rhodes. Acousto-optical signal processing: Convolution and correlation. *Proceedings IEEE*, Vol. 69, pp. 65–79, 1981.
- [1172] W.T. Rhodes. Space-variant optical systems and processing. In **Applications of Optical Fourier Transforms**, H. Stark, editor, Academic Press, New York, 1982.
- [1173] S.O. Rice. Mathematical analysis of random noise. *Bell System Technical J.*, Vol. 23, pp. 282–332, 1944.
- [1174] S.O. Rice. Mathematical analysis of random noise. *Bell System Technical J.*, Vol. 24, pp. 46–156, 1945.
- [1175] S. Ries and W. Spletstößer. On the approximation by truncated sampling series expansions. *Signal Processing*, Vol. 7, pp. 191–197, 1984.
- [1176] S. Ries and R.L. Stens. A localization principle for the approximation by sampling series. In *Proceedings of the International Conference on the Theory of Approximation of Functions (Kiev, USSR)*, Moscow; Nauka, pp. 507–509, 1983.
- [1177] S. Ries and R.L. Stens. Approximation by generalized sampling series. In *Constructive Theory of Functions (Proceedings of Conference at Varna, Bulgaria, 1984)*, Bl. Sendov *et al.*, editor, Sofia, Publishing House Bulgarian Acad. Sci., pp. 746–756, 1984.
- [1178] A.W. Rihaczek. Signal energy distribution in time and frequency. *IEEE Transactions Inform. Theory*, IT-14, pp. 369–374, 1968.
- [1179] C.L. Rino. Bandlimited image restoration by linear mean-square estimation. *Journal of the Optical Society America*, Vol. 59, pp. 547–553, 1969.
- [1180] C.L. Rino. The application of prolate spheroidal wave functions to the detection and estimation of bandlimited signals. *Proceedings IEEE*, Vol. 58, pp. 248–249, 1970.
- [1181] J. Riordan. **Combinatorial Identities**. Wiley & Sons, New York, 1968.
- [1182] O. Robaux. Application of sampling theorem for restitution of partially known objects. 2. numerical methods. *Optica Acta*, Vol. 17(11), p. 811, 1970.
- [1183] O. Robaux. Use of Sampling theorem for reconstruction of partially known objects. 3. decomposition of spectra. *Optica Acta*, Vol. 18(7), p. 523, 1971.
- [1184] Allan H. Robbins, Wilhelm Miller, **Circuit Analysis: Theory & Practice** (2nd Edition), Delmar Thomson Learning, 1999.
- [1185] J.B. Roberts and D.B.S. Ajmani. Spectral analysis of randomly sampled signals using a correlation-based slotting technique. *Proceedings IEEE*, Vol. 133, Pt. F, pp. 153–162, 1986.
- [1186] J.B. Roberts and M. Gaster. Rapid estimation of spectra from irregularly sampled records. *Proceedings IEEE*, Vol. 125, pp. 92–96, 1978.
- [1187] J.B. Roberts and M. Gaster. On the estimation of spectra from randomly sampled signals – a method of reducing variability. *Proceedings of the Royal Society London*, Vol. A371, pp. 235–258, 1980.
- [1188] Gregory S. Rohrer, **Structure and Bonding in Crystalline Materials**. Cambridge University Press, 2001.
- [1189] N. Rose. **Mathematical Maxims and Minims**, Rome Press Inc., 1988.
- [1190] A. Röseler. Zur Berechnung der optischen abbildung bei teilkohärenter beleuchtung mit hilfe des sampling-theorems. *Opt. Acta*, Vol. 16, pp. 641–651, 1969.
- [1191] A. Roshan-Ghias and M.B. Shamsollahi, and M. Mobed *et al.*, Estimation of modal parameters using bilinear joint time-frequency distributions. *Mechanical Systems and Signal Processing*, Vol. 21(5), pp. 2125–2136, 2007.

- [1192] G. Ross. Iterative methods in information processing for object restoration. *Opt. Acta*, pp. 1523–1542, 1982.
- [1193] Hugh Ross, **Beyond the Cosmos: The Extra-Dimensionality of God**, Navpress Publishing Group; 2nd Expand edition 1999.
- [1194] E. Roy, P. Abraham, S. Montresor, and J.L. Saumett. Comparison of time-frequency estimators for peripheral embolus detection. *Ultrasound in Medicine and Biology*, Vol. 26(3), pp. 419–423 2000.
- [1195] S.H. Roy, P. Bonato, and M. Knaflitz. EMG assessment of back muscle function during cyclical lifting. *Journal of Electromyography and Kinesiology*. Vol 8(4), pp. 233–245, 1998.
- [1196] Y.A. Rozanov. To the extrapolation of generalized random stationary processes. *Theor. Probability Applied*, Vol. 4, p. 426, 1959.
- [1197] D.B. Rozhdestvenskii. Sampling and the discretization theorem. *Automation and Remote Control*, Vol. 67(12), pp. 1991–2001, 2006.
- [1198] W. Rozwoda, C.W. Therrien, and J.S. Lim. Novel method for nonuniform frequency-sampling design of 2-D FIR filters. In *Proceedings ICASSP'88*, 1988.
- [1199] D.S. Ruchkin. Linear reconstruction of quantized and sampled random signals. *IRE Transactions Communication Systems*, Vol. CS–9, 1961.
- [1200] Walter Rudin. **Fourier Analysis on Groups**. Wiley-Interscience, 1990.
- [1201] A. Rundquist, A. Efimov, and D.H. Reitze. Pulse shaping with the Gerchberg-Saxton algorithm. *Journal of the Optical Society of America B – Optical Physics*, Vol. 19(10), pp. 2468–2478, 2002.
- [1202] C.K. Rushforth and R.L. Frost. Comparison of some algorithms for reconstructing space-limited images. *Journal of the Optical Society America*, Vol. 70, pp. 1539–1544, 1980.
- [1203] C.K. Rushforth and R.W. Harris. Restoration, resolution, and noise. *Journal of the Optical Society America*, Vol. 58, pp. 539–545, 1968.
- [1204] F.D. Russell and J.W. Goodman. Nonredundant arrays and postdetection processing for aberration compensation in incoherent imaging. *Journal of the Optical Society America*, Vol. 61, pp. 182–191, 1971.

S

- [1205] M.S. Sabri and W. Steenaart. An approach to bandlimited signal extrapolation: the extrapolation matrix. *IEEE Transactions Circuits & Systems*, Vol. CAS–25, pp. 74–78, 1978.
- [1206] R. Sahkaya, Y. Gao, and G. Saon. Fractional Fourier transform features for speech recognition *Proceedings. (ICASSP '04). IEEE International Conference on Acoustics, Speech, and Signal Processing*, Vol. 1, pp. 1–529–32, 2004.
- [1207] R.A.K. Said and D.C. Cooper. Crosspath real-time optical correlator and ambiguity function processor. *Proceedings Institute Elec. Engineering Vol. 120*, pp. 423–428, 1973.
- [1208] S.H. Saker. Oscillation of nonlinear dynamic equations on time scales. *Applied Mathematics and Computation*, Vol. 148(1), pp. 81–91, 2004.
- [1209] S.H. Saker. Oscillation of second-order nonlinear neutral delay dynamic equations on time scales. *Journal of Computational and Applied Mathematics*, Vol. 187(2), pp. 123–141, 2006.
- [1210] B.E.A. Saleh. *A priori* information and the degrees of freedom of noisy images. *Journal of the Optical Society America*, Vol. 67, pp. 71–76, 1977.
- [1211] B.E.A. Saleh and M.O. Freeman. Optical transformations. In **Optical Signal Processing**. J.L. Horner, editor, Academic Press, New York, 1987.
- [1212] F.V. Salina, N.D.A. Mascarenhas, and P.E. Cruvinel. A comparison of POCS algorithms for tomographic reconstruction under noise and limited view. *Proceedings Brazilian Symposium on Computer Graphics and Image Processing*, 2002. pp. 342–346, 2002.
- [1213] F.V. Salina and N.D.A. Mascarenhas. A Hybrid Estimation Theoretic-POCS Method for Tomographic Image Reconstruction. 18th Brazilian Symposium on Computer Graphics and Image Processing, 2005. SIBGRAPI 2005. pp. 220–224, 2005.
- [1214] M. Salerno, G. Orlandi, G. Martinelli, and P. Burrascano. Synthesis of acoustic well-logging waveforms on an irregular grid. *Geophysical Prospection*, Vol. 34, No. 8, pp. 1145–1153, 1986.

- [1215] C. Sanchez-Avila. An adaptive regularized method for deconvolution of signals with edges by convex projections. *IEEE Transactions on Signal Processing*, Vol. 42(7), pp. 1849–1851, 1994.
- [1216] C. Sanchez-Avila and J.A. Garcia-Moreno. An adaptive LSQR algorithm for computing discontinuous solutions in deconvolution problems. *Mathematics and Computers in Simulation*, Vol. 50(1–4), pp. 323–329, 1999.
- [1217] I.W. Sandberg. On the properties of some systems that distort signals – I. *Bell Syst. Tech. J.*, pp. 2033–2046, 1963.
- [1218] J. Sanz and T. Huang. On the Gerchberg - Papoulis algorithm. *IEEE Transactions on Circuits and Systems*, Vol. 30(12), pp. 907–908, 1983.
- [1219] J.L.C. Sanz. On the reconstruction of bandlimited multidimensional signals from algebraic sampling contours. *Proceedings IEEE*, Vol. 73, pp. 1334–1336, 1985.
- [1220] Vidi Saptari. **Fourier Transform Spectroscopy Instrumentation Engineering**. International Society for Optical Engineering (SPIE), 2003.
- [1221] T.K. Sarkar, D.D. Weiner, and V.K. Jain. Some mathematical considerations in dealing with the inverse problem. *IEEE Transactions Antennas & Propagation*, Vol. AP-29, pp. 373–379, 1981.
- [1222] K. Sasakawa. *Application of Miyakawa's Multidimensional Sampling Theorem (Japanese)*. Prof. Group on Inform. Theory, Institute Electron. Commun. Engineering Japan, I: no. I, 1960; II: no. 9, 1960; III: no. 2, 1961; IV: no. 6, 1961; V: no. 1, 1962.
- [1223] Y. Sasaki and K. Teramoto. Improved satellite ground resolution for sea-ice observation using an inversion method and a priori information. *IEEE Journal of Oceanic Engineering*. Vol. 31(1), pp. 219–229, 2006.
- [1224] P. Sathyanarayana, P.S. Reddy, and M.N.S. Swamy. Interpolation of 2-D signals. *IEEE Transactions Circuits & Systems*, Vol. 37, No. 5, pp. 623–631, 1990.
- [1225] K.D. Sauer and J.P. Allebach. Iterative reconstruction of bandlimited images from non-uniformly spaced samples. *IEEE Transactions Circuits & Systems*, Vol. 34, pp. 1497–1505, 1987.
- [1226] R.W. Schafer, R.M. Mersereau, and M.A. Richards. Constrained iterative restoration algorithms. *Proceedings IEEE*, pp. 432–450, 1981.
- [1227] R.W. Schafer and L.R. Rabiner. A digital signal processing approach to interpolation. *Proceedings IEEE*, Vol. 61, pp. 692–702, 1973.
- [1228] S.A. Schelkunoff. Theory of antennas of arbitrary size and shape. *Proceedings IRE*, pp. 493–521, 1941.
- [1229] W. Schempp. Radar ambiguity functions, the Heisenberg group, and holomorphic theta series. *Proceedings America Math. Society* Vol. 92, pp. 103–110, 1984.
- [1230] W. Schempp. Gruppentheoretische aspekte der signal übertragung und der kardinalen interpolations splines I. *Math. Meth. Applied Sci.*, Vol. 5, pp. 195–215, 1983.
- [1231] J.L. Schiff and W.J. Walker. A sampling theorem for analytic functions. *Proceedings of the American Mathematical Society*, Vol. 99(4), pp. 737–740, 1987.
- [1232] J.L. Schiff and W.J. Walker. A sampling theorem and winter results on Fourier coefficients. *Journal of Mathematical Analysis and Applications*, Vol. 133(2), pp. 466–471, 1988.
- [1233] J.L. Schiff and W.J. Walker. A sampling theorem for a class of pseudoanalytic functions. *Proceedings of the American Mathematical Society*, Vol. 111(3), pp. 695–699, 1991.
- [1234] R.J. Schlesinger and V.B. Ballew. An application of the sampling theorem to data collection in a computer integrated manufacturing environment. *International Journal of Computer Integrated Manufacturing*, Vol. 2(1), pp. 15–22, 1989.
- [1235] Dietrich Schlichthärle. **Digital Filters: Basics and Design**. Springer, 2000.
- [1236] I.J. Schoenberg. Contributions to the problem of approximation of equidistant data by analytic functions. Part a: On the problem of smoothing or graduation. A first class of analytic approximation formulae. *Quart. Applied Math.*, Vol. 4, pp. 45–99, 1946.
- [1237] I.J. Schoenberg. Cardinal interpolation and spline functions. *Journal Approx. Theory* 2, pp. 167–206, 1969.
- [1238] A. Schönage. **Approximationstheorie**. de Gruyter, Berlin – New York, 1971.

- [1239] Hartmut Schröder and Holger Blume. **One- and Multidimensional Signal Processing: Algorithms and Applications in Image Processing**. John Wiley & Sons, 2001.
- [1240] L.L. Schumaker. **Spline Functions: Basic Theory**. Wiley, New York, 1981.
- [1241] G. Schwierz, W. Härer, and K. Wiesent. Sampling and discretization problems in X-ray CT. In **Mathematical Aspects of Computerized Tomography**, Springer-Verlag, Berlin, 1981.
- [1242] H.J. Scudder. Introduction to computer aided tomography. *Proceedings IEEE*, Vol. 66, pp. 628–637, 1978.
- [1243] M. Sedletsii. **Fourier Transforms and Approximations**. CRC, 2000.
- [1244] Robert T. Seeley. **An Introduction to Fourier Series and Integrals**. Dover Publications 2006.
- [1245] J. Segethova. Numerical construction of the Hill function. *SIAM J. Numer. Anal.* Vol. 9, pp. 199–204, 1972.
- [1246] K. Seip. An irregular sampling theorem for functions bandlimited in a generalized sense. *SIAM J. Applied Math.*, Vol. 47, pp. 1112–1116, 1987.
- [1247] K. Seip. A note on sampling bandlimited stochastic processes. *IEEE Transactions Information Theory*, Vol. 36, No. 5, p. 1186, 1990.
- [1248] A. Sekey. A computer simulation study of real-zero interpolation. *IEEE Transactions Audio Electroacoustics*, Vol. 18, p. 43, 1970.
- [1249] I.W. Selesnick. Interpolating multiwavelet bases and the sampling theorem. *IEEE Transactions on Signal Processing*, Vol. 47(6), pp. 1615–1621, 1999.
- [1250] M. De La Sen. Nonperiodic sampling and model matching. *Electron. Letters*, Vol. 18, pp. 311–313, 1982.
- [1251] M. De La Sen and S. Dormido. Nonperiodic sampling and identifiability. *Electron. Letters*, Vol. 17, pp. 922–925, 1981.
- [1252] M. De La Sen and M.B. Pay. On the use of adaptive sampling in hybrid adaptive error models. *Proceedings IEEE*, Vol. 72, pp. 986–989, 1984.
- [1253] M.I. Sezan and H. Stark. Image restoration by method of convex set projections: Part II – Applications and Numerical Results. *IEEE Transactions Med. Imaging*, Vol MI-1, pp. 95–101, 1982.
- [1254] M. Ibrahim Sezan, Henry Stark and Shu-Jen Yeh. Projection method formulations of Hopfield-type associative memory neural networks. *Applied Optics*, Vol. 29, No. 17, pp. 2616–2622, 1990.
- [1255] M. Ibrahim Sezan and Henry Stark. Tomographic image reconstruction from incomplete view data by convex projections and direct Fourier inversion. *IEEE Transactions Medical Imaging*, Vol. MI-3, No. 2, pp. 91–98, 1984.
- [1256] C.E. Shannon. A mathematical theory of communication. *Bell Systems Tech. J.*, Vol. 27, pp. 379 and 623, 1948.
- [1257] C.E. Shannon. Communications in the presence of noise. *Proceedings IRE*, Vol. 37, pp. 10–21, 1949.
- [1258] C.E. Shannon and W. Weaver. **The Mathematical Theory of Communication**. University of Illinois Press, Urbana, IL, 1949.
- [1259] H.S. Shapiro. **Smoothing and Approximation of Functions**. Van Nostrand Reinhold, New York, 1969.
- [1260] H.S. Shapiro. Topics in Approximation Theory. **Lecture Notes in Mathematics**, Vol. 187, Springer-Verlag, Berlin - Heidelberg – New York, 1971.
- [1261] H.S. Shapiro and R.A. Silverman. Alias free sampling of random noise. *Journal SIAM*, Vol. 8, pp. 225–236, 1960.
- [1262] K.K. Sharma and S.D. Joshi. Signal reconstruction from the undersampled signal samples *Optics Communications*, Vol. 268(2), pp. 245–252, 2006.
- [1263] L. Shaw. Spectral estimates from nonuniform samples. *IEEE Transactions Audio Electroacoustics*, Vol. AU-19, 1970.
- [1264] R.G. Shenoy and T.W. Parks. An optimal recovery approach to interpolation. *IEEE Transactions Signal Processing*, Vol. 40, No. 6, pp. 1987–1988, 1992.

- [1265] C.E. Shin, S.Y. Chung, and D. Kim. General sampling theorem using contour integral. *Journal of Mathematical Analysis and Application*, Vol. 291(1), pp. 50–65, 2004.
- [1266] J.H. Shin, J.H. Jung, and J.R. Paik. Spatial interpolation of image sequences using truncated projections onto convex sets. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, Vol. E82A(6), pp. 887–892, 1999.
- [1267] Eric Stadel. **Fourier Analysis**. Wiley-Interscience, 2005.
- [1268] Elias M. Stein and Rami Shakarchi. **Fourier Analysis: An Introduction**. (Princeton Lectures in Analysis. Volume 1). Princeton University Press, 2003.
- [1269] Elias M. Stein and Guido Weiss. **Introduction to Fourier Analysis on Euclidean Spaces**. Princeton University Press, 1971.
- [1270] A. Stern and B. Javidi. Improved-resolution digital holography using the generalized sampling theorem for locally band-limited fields. *Journal of the Optical Society of America A – Optics, Image Science and Vision*, Vol. 23(5), pp. 1227–1235, 2006.
- [1271] A. Stern. Sampling of linear canonical transformed signals. *Signal Processing*, Vol. 86(7), pp. 1421–1425, 2006.
- [1272] A. Sherstinsky and C.G. Sodini. A programmable demodulator for oversampled analog-to-digital modulators. *IEEE Transactions Circuits & Systems*, Vol. CAS-37, No. 9, pp. 1092–1103, 1990.
- [1273] S. Shirani, F. Kossentini, and R. Ward. Reconstruction of baseline JPEG coded images in error prone environments. *IEEE Transactions Image Processing*, Vol. 9, No.7, pp. 1292–1299, 2000.
- [1274] F. S. Shoucair. Joseph Fourier’s analytical theory of heat: a legacy to science and engineering. *IEEE Transactions on Education*, Vol. 32, pp. 359–366, 1989.
- [1275] Emil Y. Sidky, Chien-Min Kao, and Xiaochuan Pan. Accurate image reconstruction from few-views and limited-angle data in divergent-beam CT. *Journal of X-Ray Science and Technology*, Vol. 14(2), pp. 119–139, 2006.
- [1276] G. Simmons, **Calculus Gems**, New York: Mcgraw Hill, Inc., 1992.
- [1277] R. Simon. Krishnan and the sampling theorem. *Current Science*, Vol. 75(11), pp. 1239–1245, 1998.
- [1278] G. Sinclair, J. Leach, P. Jordan, *et al.* Interactive application in holographic optical tweezers of a multi-plane Gerchberg-Saxton algorithm for three-dimensional light shaping. *Optics Express*, Vol. 12(8), pp. 1665–1670, 2004.
- [1279] N.K. Sinha and G.J. Lastman. Identification of continuous-time multivariable systems from sampled data. *International J. Control*, Vol. 35, pp. 117–126, 1982.
- [1280] D. Slepian. Prolate spheroidal wave functions Fourier analysis and uncertainty IV: Extensions to many dimensions; generalized prolate spheroidal wave functions. *Bell Systems Tech. J.*, Vol. 43, pp. 3009–3057, 1964.
- [1281] D. Slepian. Analytic solution of two apodization problems. *Journal of the Optical Society America*, Vol. 55, pp. 1110–1115, 1965.
- [1282] D. Slepian. Some asymptotic expansions for prolate spheroidal wave functions. *Journal Math., Phys.* Vol. 44, No. 2, pp. 99–140, 1965.
- [1283] D. Slepian. On bandwidth. *Proceedings IEEE*, Vol. 64, pp. 292–300, 1976.
- [1284] D. Slepian. Prolate spheroidal wave functions, Fourier analysis and uncertainty – V: The discrete case. *Bell Systems Tech. J.*, Vol. 57, pp. 1371–1430, 1978.
- [1285] D. Slepian and H.O. Pollak. Prolate spheroidal wave functions Fourier analysis and uncertainty I. *Bell Systems Tech. J.*, Vol. 40, pp. 43–63, 1961.
- [1286] D. Slepian and E. Sonnenblick. Eigenvalues associated with prolate spheroidal wave functions of zero order. *Bell Systems Tech. J.*, Vol. 44, pp. 1745–1758, 1965.
- [1287] Robert Smedley and Garry Wiseman. **Introducing Pure Mathematics**. Oxford University Press, 2001.
- [1288] Alexandre Smirnov. **Processing of Multidimensional Signals**. Springer, 1999.
- [1289] D.K. Smith and R.J. Marks II. Closed form bandlimited image extrapolation. *Applied Optics*, Vol. 20, pp. 2476–2483, 1981.
- [1290] Julius O. Smith III. **Mathematics of the Discrete Fourier Transform (DFT): with Audio Applications**. Second Edition. BookSurge Publishing, 2007.

- [1291] M.J. Smith, Jr. An evaluation of adaptive sampling. *IEEE Transactions Automatic Control*, Vol. AC-16, pp. 282–284, 1971.
- [1292] T. Smith, M.R. Smith, and S.T. Nichols. Efficient sinc function interpolation technique for center padded data. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-38, No. 9, pp. 1512–1517, 1990.
- [1293] Brian C. Smith. **Fundamentals of Fourier Transform Infrared Spectroscopy**. CRC Press, 1995.
- [1294] Ian N. Sneddon. **The Use of Integral Transforms**. McGraw-Hill, New York, 1972.
- [1295] Ian N. Sneddon. **Fourier Transforms**. Dover Publications, 1995.
- [1296] M.A. Soderstrand. **Residue Number System Arithmetic: Modern Applications in Digital Signal Processing**. IEEE Press, 1986.
- [1297] Guy R. Sohie and George N. Maracas. Orthogonality of exponential transients. *Proceedings IEEE*, Vol. 76, No. 12, pp. 1616–1618, 1988.
- [1298] E.A. Soldatov and E.V. Chuprunov. The Kotelnikov-Shannon sampling theorem in the structure analysis. *Crystallography Reports*, Vol. 44(5), pp. 732–733, 1999.
- [1299] S.C. Som. Simultaneous multiple reproduction of space-limited functions by sampling of spatial frequencies. *Journal of the Optical Society America*, Vol. 60, pp. 1628–1634, 1970.
- [1300] I. Someya. **Waveform Transmission**. Shukyo, Ltd., Tokyo, 1949.
- [1301] Young-Seog Song and Yong Hoon Lee. Formulas for McClellan transform parameters in designing 2-D zero-phase FIR fan filters. *IEEE Signal Processing Letters*, Vol. 3(11), pp. 291–293, 1996.
- [1302] M. Soumekh. Bandlimited interpolation from unevenly spaced sampled data. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-36, No. 1, pp. 110–122, 1988.
- [1303] M. Soumekh. Reconstruction and sampling constraints for spiral data. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-37, pp. 882–891, 1989.
- [1304] Mehrdad Soumekh. **Fourier Array Imaging**. Prentice Hall Professional Technical Reference, 1993.
- [1305] J.J. Spilker. Theoretical bounds on the performances of sampled data communications systems. *IRE Transactions Circuit Theory*, Vol. CT-7, pp. 335–341, 1960.
- [1306] W. Splettstößer. Über die Approximation stetiger Funktionen durch die klassischen und durch neue Abtastsummen mit Fehlerabschätzungen. Doctoral dissertation, RWTH Aachen, Aachen, Germany, 1977.
- [1307] W. Splettstößer. On generalized sampling sums based on convolution integrals. *AEU*, Vol. 32, No. 7, pp. 267–275, 1978.
- [1308] W. Splettstößer. Error estimates for sampling approximation of non-bandlimited functions. *Math. Meth. Applied Sci.*, Vol. 1, pp. 127–137, 1979.
- [1309] W. Splettstößer. Error analysis in the Walsh sampling theorem. In *1980 IEEE International Symposium on Electromagnetic Compatibility, Baltimore*, Vol. 409, pp. 366–370, 1980.
- [1310] W. Splettstößer. Bandbegrenzte und effektiv bandbegrenzte funktionen und ihre praediktion aus abtastwerten. Habilitationsschrift, *RWTH Aachen*, 1981.
- [1311] W. Splettstößer. On the approximation of random processes by convolution processes. *Z. Angew. Math. Mech.*, Vol. 61, pp. 235–241, 1981.
- [1312] W. Splettstößer. Sampling series approximation of continuous weak sense stationary processes. *Information & Control*, Vol. 50, pp. 228–241, 1981.
- [1313] W. Splettstößer. On the prediction of bandlimited processes from past samples. *Inform. Sci.*, Vol. 28, pp. 115–130, 1982.
- [1314] W. Splettstößer. Sampling approximation of continuous functions with multi-dimensional domain. *IEEE Transactions Information Theory*, Vol. IT-28, pp. 809–814, 1982.
- [1315] W. Splettstößer. 75 years aliasing error in the sampling theorem. In *EUSIPCOM – 83, Signal Processing: Theories and Applications (2. European Signal Processing Conference, Erlangen)*, H.W. Schüssler, editor. North-Holland Publishing Company, Amsterdam - New York - Oxford, 1983, pp. 1–4.
- [1316] W. Splettstößer. Lineare praediktion von nicht bandbegrenzten funktionen. *Z. Angew. Math. Mech.* Vol. 64, pp. T393–T395, 1984.

- [1317] W. Spletstößer, R.L. Stens, and G. Wilmes. On approximation by the interpolating series of G. Valiron. *Funct. Approx. Comment. Math.*, Vol. 11, pp. 39–56, 1981.
- [1318] W. Spletstößer and W. Ziegler. The generalized Haar functions, the Haar transform on \mathbf{r}^+ , and the Haar sampling theorem. In *Proceedings of the “Alfred Haar Memorial Conference,” Budapest*, pp. 873–896, 1985.
- [1319] T. Springer. Sliding FFT computes frequency spectra in real time. *EDN Magazine*, September 29, 1988, pp. 161–170.
- [1320] Julien Clinton Sprott. **Chaos and Time-Series Analysis**. Oxford University Press, 2003.
- [1321] C.J. Standish. Two remarks on the reconstruction of sampled non-bandlimited functions. *IBM J. Res. Develop.* Vol. 11, pp. 648–649, 1967.
- [1322] H. Stark. Sampling theorems in polar coordinates. *Journal of the Optical Society America*, Vol. 69, pp. 1519–1525, 1979.
- [1323] H. Stark. Polar sampling theorems of use in optics. *Proceedings SPIE, International Society Optical Engineering*, Vol. 358, pp. 24–30, 1982.
- [1324] H. Stark, editor. **Image Recovery: Theory and Application**. Academic Press, Orlando, FL, 1987.
- [1325] H. Stark, D. Cahana, and H. Webb. Restoration of arbitrary finite-energy optical objects from limited spatial and spectral information. *Journal of the Optical Society America*, Vol. 71, pp. 635–642, 1981.
- [1326] H. Stark and C.S. Sarna. Bounds on errors in reconstructing from undersampled images. *Journal of the Optical Society America*, Vol. 69, pp. 1042–1043, 1979.
- [1327] H. Stark and C.S. Sarna. Image reconstruction using polar sampling theorems of use in reconstructing images from their samples and in computer aided tomography. *Applied Optics*, Vol. 18, pp. 2086–2088, 1979.
- [1328] H. Stark and M. Wengrovitz. Comments and corrections on the use of polar sampling theorems in CT. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-31, pp. 1329–1331, 1983.
- [1329] H. Stark and John W. Woods. **Probability, Random Processes, and Estimation Theory for Engineers**. Prentice-Hall, Englewood Cliffs, NJ, 1986.
- [1330] H. Stark, J.W. Woods, I. Paul, and R. Hingorani. Direct Fourier reconstruction in computer tomography. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-29, pp. 237–245, 1981.
- [1331] H. Stark, J.W. Woods, I. Paul, and R. Hingorani. An investigation of computerized tomography by direct Fourier inversion and optimum interpolation. *IEEE Transactions Biomedical Engineering*, Vol. BME-28, pp. 496–505, 1981.
- [1332] H. Stark. Sampling theorems in polar coordinates. *Journal of the Optical Society America*, Vol. 69, No. 11, pp. 1519–1525, 1979.
- [1333] H. Stark and Y. Yang, **Vector Space Projections: A Numerical Approach to Signal and Image Processing, Neural Nets, and Optics** Wiley-Interscience, New York, 1998.
- [1334] R. Stasinski and J. Konrad. Linear shift-variant filtering for POCS of reconstruction irregularly sampled images. *Proceedings of the 2003 International Conference on Image Processing*, 2003. ICIP 2003. Vol. 3, pp. III - 689–692, 2003.
- [1335] O.N. Stavroudis. **The Optics of Rays, Wavefronts, and Caustics**. Academic Press, New York, 1972.
- [1336] R. Steele and F. Benjamin. Sample reduction and subsequent adaptive interpolation of speech signals. *Bell Systems Tech. J.*, Vol. 62, pp. 1365–1398, 1983.
- [1337] P. Steldinger and U. Kothe. Towards a general sampling theory for shape preservation. *Image and Vision Computing*, Vol. 23(2), pp. 237–248, 1 2005.
- [1338] F. Stenger. Approximations via Whittaker’s cardinal function. *Journal Approx. Theory*, Vol. 17, pp. 222–240, 1976.
- [1339] F. Stenger. Numerical methods based on Whittaker cardinal, or sinc functions. *SIAM Rev.*, Vol. 23, pp. 165–224, 1981.
- [1340] R.L. Stens. Approximation of duration-limited functions by sampling sums. *Signal Processing*, Vol. 2, pp. 173–176, 1980.

- [1341] R.L. Stens. A unified approach to sampling theorems for derivatives and Hilbert transforms. *Signal Processing*, Vol. 5, pp. 139–151, 1983.
- [1342] R.L. Stens. Error estimates for sampling sums based on convolution integrals. *Information & Control*, Vol. 45, pp. 37–47, 1980.
- [1343] R.L. Stens. Approximation of functions by Whittaker's cardinal series. in General Inequalities 4 (*Proceedings Conf. Math. Res. Institute Oberwolfach*, W. Walter, ed.) Birkhäuser Verlag, Basel, pp. 137–149, 1984.
- [1344] E.G. Stewart. **Fourier Optics: An Introduction**. Dover Publications, 2004.
- [1345] R.M. Stewart. Statistical design and evaluation of filters for the restoration of sampled data. *Proceedings IRE*, Vol. 44, pp. 253–257, 1956.
- [1346] D.C. Stickler. An upper bound on aliasing error. *Proceedings IEEE*, Vol. 55, pp. 418–419, 1967.
- [1347] G. Strang. **Linear Algebra and Its Applications**. Academic Press, New York, 1980.
- [1348] Gilbert Strang and Truong Nguyen. **Wavelets and Filter Banks**. Second Edition. Wellesley College, 1996.
- [1349] R.N. Strickland, A.P. Anderson, and J.C. Bennett. Resolution of subwavelength-spaced scatterers by superdirective data processing simulating evanescent wave illumination. *Microwaves, Opt. & Acoust.*, Vol. 3, pp. 37–42, 1979.
- [1350] G. Stigwall and S. Galt. Non-linear signal retrieval in wide-band photonic time-stretch systems using the gerschberg-Saxton algorithm. International Topical Meeting on Microwave Photonics, 2006. MWP '06. pp. 1–4, 2006
- [1351] T. Strohmer and J. Tanner. Fast reconstruction methods for bandlimited functions from periodic nonuniform sampling. *SIAM Journal on Numerical Analysis*, Vol. 44(3), pp. 1073–1094, 2006.
- [1352] J.A. Stuller. Reconstruction of finite duration signals. *IEEE Transactions Information Theory*, Vol. IT-18, pp. 667–669, 1972.
- [1353] K.L. Su. **Analog Filters**, Second Edition. Springer, 2002.
- [1354] R. Sudhakar, R.C. Agarwal, and S.C. Dutta Roy. Fast computation of Fourier transform at arbitrary frequencies. *IEEE Transactions Circuits & Systems*, Vol. CAS-28, pp. 972–980, 1982.
- [1355] R. Sudol and B.J. Thompson. An explanation of the Lau effect based on coherence theory. *Optical Communication*, pp. 105–110, 1979.
- [1356] R. Sudol and B.J. Thompson. Lau effect: theory and experiment. *Applied Optics*, pp. 1107–1116, 1981.
- [1357] H. Sugiyama. A sampling theorem with equally spaced sampling points of the negative time axis. *Mathematics of Control Signals and Systems*, Vol 6(2), pp. 125–134, 1993.
- [1358] B. Summers, G.D. Cain. An extension to the sampling theorem for lowpass bandlimited periodic time functions using n^{th} order sampling schemes. *IEEE Transactions on Instrumentation and Measurement*, Vol. 40(6), pp. 990–993, 1991.
- [1359] Hong-Bo Sun, Guo-Sui Liu, Hong Gu, and Wei-Min Su. Application of the fractional Fourier transform to moving target detection in airborne SAR. *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 38(4), pp. 1416–1424, 2002.
- [1360] H.R. Sun and W.T. Li. Positive solutions of second-order half-linear dynamic equations on time scales. *Applied Mathematics and Computation*, Vol. 158(2), pp. 331–344, 2004.
- [1361] H. Sun and W. Kwok. Concealment of damaged blocks transform coded images using projections onto convex sets. *IEEE Transactions Image Processing*, Vol. 4, pp. 470–477, 1995.
- [1362] W.C. Sun and X.W. Zhou. Sampling theorem for wavelet subspaces: Error estimate and irregular sampling. *IEEE Transactions on Signal Processing*, Vol. 48(1), pp. 223–226, 2000.
- [1363] W.C. Sun and Z.W. Zhou. The aliasing error in recovery of nonbandlimited signals by prefiltering and sampling. *Applied Mathematics Letters*, Vol. 16(6), pp. 949–954, 2003.
- [1364] Y.R. Sun and S. Signell. Effects of noise and jitter in bandpass sampling. *Analog Integrated Circuits and Signal Processing*, Vol. 42(1), pp. 85–97, 2005.
- [1365] Zhaohui Sun, et al. Interactive optimization of 3D shape and 2D correspondence using multiple geometric constraints via POCS. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 24(4), pp. 562–569, 2002.

- [1366] H. Sundaram, S.D. Joshi, and R.K.P. Bhatt. Scale periodicity and its sampling theorem. *IEEE Transactions on Signal Processing*, Vol. 45(7), pp. 1862–1865, 1997.
- [1367] D. Sundararajan. **The Discrete Fourier Transform: Theory, Algorithms and Applications**. World Scientific Publishing Company, 2001.
- [1368] S.K. Suslov. **An Introduction to Basic Fourier Series**. Springer, 2003.
- [1369] K. Swaminathan. Signal restoration from data aliased in time. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-33, pp. 151–159, 1985.
- [1370] G.J. Swanson and E.N. Leith. Lau effect and grating imaging. *Journal of the Optical Society America*, Vol. 72, pp. 552–555, 1982.
- [1371] S. Szapiel. Sampling theorem for rotationally symmetric systems based on dini expansion. *Opt. Letters*, Vol. 6, pp. 7–9, 1981.
- [1372] H.H. Szu and J.A. Blodgett. Wigner distribution and ambiguity function. *Optics in Four Dimensions—1980, AIP Conf. Proceedings* 65, M.A. Machado and L.M. Narducci, eds. American Institute of Physics, New York, pp. 355–381, 1980.

T

- [1373] P.D. Tafti, S. Shirani, and X.L. Wu. On interpolation and resampling of discrete data. *IEEE Signal Processing Letters*, Vol. 13(12), pp. 733–736, 2006.
- [1374] S. Takata. J B Fourier in the history of thermal radiation research. *Historia Sci.*, (2) 2 (3), pp. 203–221, 1993.
- [1375] M. Takagi and E. Shinbori. High quality image magnification applying the Gerchberg-Papoulis iterative algorithm with DCT. *Systems and Computers in Japan*, Vol. 25(6), pp. 80–90 1994.
- [1376] Y. Tanaka, T. Fujiwara, and H. Koshimizu, *et al.* OK-Quantization Theory and its relationship to sampling theorem. *Lecture Notes in Computer Science*, Vol. 3852, pp. 479–488 2006.
- [1377] B. Tatian. Asymptotic expansions for correcting truncation error in transfer function calculations. *Journal of the Optical Society America*, Vol. 61, pp. 1214–1224, 1971.
- [1378] H. Taylor and C.A. Lipson. **Fourier Transforms and X-Ray Diffraction**. G. Bell & Sons Ltd., 1958.
- [1379] C. Tellambura. Computing the outage probability in mobile radio networks using the sampling theorem. *IEEE Transactions on Communications*, Vol. 47(8), pp. 1125–1128, 1999.
- [1380] G.C. Temes, V. Barilon, and F.C. Marshall III. The optimization of bandlimited systems. *Proceedings IEEE*, Vol. 61, pp. 196–234, 1973.
- [1381] K. Teramoto. Conjugate gradient projection onto convex sets for sparse array acoustic holography. *IEICE Transactions on Fundamentals of Electronics Communications and Computer Sciences*, Vol E80A(5), pp. 833–839, 1997.
- [1382] Audrey Terras. **Fourier Analysis on Finite Groups and Applications**. Cambridge University Press, 1999.
- [1383] Les Thede. **Practical Analog And Digital Filter Design**. Artech House Publishers, 2004.
- [1384] M. Theis. Über eine Interpolationsformel von de la Vallée-Poussin. *Math. Z.*, Vol. 3, pp. 93–113, 1919.
- [1385] C. Thieke, T. Bortfeld, A. Niemierko, and S. Nill. From physical dose constraints to equivalent uniform dose constraints in inverse radiotherapy planning *Medical Physics*. Vol. 30(9), pp. 2332–2339, 2003.
- [1386] G. Thomas. A modified version of Van Cittert’s iterative deconvolution procedure. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-29, pp. 938–939, 1981.
- [1387] J.B. Thomas. **An Introduction to Statistical Communication Theory**. John Wiley & Sons, Inc., New York, 1969.
- [1388] J.B. Thomas and B. Liu. Error problems in sampling representations, Part 5. *IEEE International Conv. Rec.*, Vol. 12, pp. 269–277, 1964.
- [1389] B.J. Thompson. Image formation with partially coherent light. In **Progress in Optics**, E. Wolf, editor, North Holland, Amsterdam, pp. 169–230, 1969.
- [1390] B.J. Thompson. Multiple imaging by diffraction techniques. *Applied Optics*, p. 312, 1976.
- [1391] J.E. Thompson and L.H. Luessen, editors. **Fast Electrical and Optical Measurements, Vol. 1**. Martinus Nijhoff Publishers, 1986.

- [1392] Sir William Thomson (Lord Kelvin) and Peter Guthrie Tait. **Treatise On Natural Philosophy, By Sir William Thomson And Peter Guthrie Tait**, University of Michigan Library, 2001.
- [1393] B. Tian *et al.* POCS superresolution image reconstruction using wavelet transform *Proceedings of International Symposium on 2004 Intelligent Signal Processing and Communication Systems*, ISPACS 2004, pp. 67–70, 2004.
- [1394] A.N. Tikhonov and V.Y. Arsenine. **Solutions of Ill-Posed Problems**. Wiston/Wiley, Washington, DC, 1977.
- [1395] A.F. Timan. **Theory of Approximation of Functions of a Real Variable**. Pergamon Press, Oxford, 1963.
- [1396] E.C. Titchmarsh. The zeros of certain integral functions. *Proceedings London Math. Society*, Vol. 25, pp. 283–302, 1926.
- [1397] E.C. Titchmarsh. **Introduction to the Fourier Integral**. Oxford University Press, Oxford, 1937.
- [1398] E.C. Titchmarsh. *The Theory of Functions*, 2nd ed. University Press, London, 1939.
- [1399] E.C. Titchmarsh. **Introduction to the Theory of Fourier Integrals (2nd Edition)**. Clarendon Press, Oxford, 1948.
- [1400] D.E. Todd. Sampled data reconstruction of deterministic bandlimited signals. *IEEE Transactions Information Theory*, Vol. IT-19, pp. 809–811, 1973.
- [1401] Georgi P. Tolstov. **Fourier Series**. Dover Publications, 1976.
- [1402] Lex Tokyo, Yo Sakakibara, Alan Gleason. **Who Is Fourier?: A Mathematical Adventure**, Language Research Foundation, 1995.
- [1403] G. Toraldo diFrancia. Super-gain antennas and optical resolving power. *Suppl. Nuovo Cimento*, pp. 426–438, 1952.
- [1404] G. Toraldo diFrancia. Resolving power and information. *Journal of the Optical Society America*, Vol 45, pp. 497–501, 1955.
- [1405] G. Toraldo diFrancia. Directivity, super-gain and information. *IRE Transactions Antennas & Propagation*, Vol. AP-4, pp. 473–478, 1956.
- [1406] G.Toraldo diFrancia. **La diffrazione della luce**. Einaudi Borngnieri, Torino, 1958.
- [1407] G. Toraldo diFrancia. Degrees of freedom of an image. *Journal of the Optical Society America*, Vol. 59, pp. 799–804, 1969.
- [1408] R.H. Torres. Spaces of Sequences, Sampling Theorem, and Functions of Exponential Type. *Studia Mathematica*, Vol. 100(1), pp. 51–74, 1991.
- [1409] R.T. Torres, P. Pellat-Finet, and Y. Torres. Sampling theorem for fractional bandlimited signals: A self-contained proof. Application to digital holography. *IEEE Signal Processing Letters*, Vol. 13(11), pp. 676–679, 2006.
- [1410] Hans Triebel. **Fractals and Spectra: Related to Fourier Analysis and Function Spaces**. Birkhäuser Basel, 1997.
- [1411] Roald M. Trigub and Eduard S. Belinsky. **Fourier Analysis and Approximation of Functions**. Springer, 2004.
- [1412] H.J. Trussel, L.L. Arnder, P.R. Morand, and R.C. Williams. Corrections for nonuniform sampling distortions in magnetic resonance imagery. *IEEE Transactions Medical Imaging*, Vol. MI-7, No. 1, pp. 32–44, 1988.
- [1413] C.C. Tseng. Design of two-dimensional FIR digital filters by McClellan transform and quadratic programming. *IEE Proceedings on Vision, Image and Signal Processing*, Vol. 148(5), pp. 325–331, 2001.
- [1414] Shiao-Min Tseng. **Noise Level Analysis of Linear Restoration Algorithms for Bandlimited Signals**. Ph.D. thesis, University of Washington, 1984.
- [1415] John Hudson Tiner. **Louis Pasteur – Founder of Modern Medicine**. Milford, MI: Mott Media, Inc., p. 75, 1990.
- [1416] S. Tsekeridou and I. Pitas. MPEG-2 error concealment based on block-matching principles. *IEEE Transactions Circuits Syst. Video Technol.*, Vol. 10, pp. 646–658, 2000.
- [1417] J. Tsujiuchi. Correction of optical images by compensation of aberrations and by spatial frequency filtering. In **Progress in Optics**, E. Wolf, editor. North-Holland, Amsterdam, pp. 131–180, 1963.

- [1418] Y. Tsunoda and Y. Takeda. High density image-storage holograms by a random phase sampling method. *Applied Optics*, Vol. 13, pp. 2046–2051, 1974.
- [1419] P. Turán. **The Work of Alfréd Rényi**. Matematikai Lapok 21, pp. 199–210, 1970.
- [1420] B. Turner. Fourier's seventeen lines problem. *Math. Mag.*, Vol. 53(4), pp. 217–219, 1980.
- [1421] J. Turunen, A. Vasara, and A.T. Friberg. Propagation invariance and self-imaging in variable coherence optics. *Journal of the Optical Society America A*, Vol. 8, pp. 282–289, 1991.
- [1422] J. Turunen, A. Vasara, J. Werterholm, and A. Salin. Strip-geometry two-dimensional Damman gratings. *Optical Communication*, Vol. 74, pp. 245–252, 1989.
- [1423] Tzafestas **Multidimensional Systems**. CRC, 1986.

U

- [1424] Kazunori Uchida. Spectral domain method and generalized sampling theorems. *Transactions of IEICE*, Vol. E73, No. 3, pp. 357–359, 1990.
- [1425] T. Umemoto, S. Fujisawa, and T. Yoshida. Constant Q-value filter banks with spectral analysis using LMS algorithm. *Proceedings of the 37th SICE Annual Conference*. (ISICE '98). pp. 1019–1024, 1998.
- [1426] M. Unser, A. Aldroubi, and M. Eden Polynomial spline signal approximations: Filter design and asymptotic equivalence with Shannon's sampling theorem. *IEEE Transactions Information Theory*, Vol. IT-38, No. 1, 1992.
- [1427] H.P. Urbach. Generalised sampling theorem for band-limited functions. *Mathematical and Computer Modelling*, Vol. 38(1–2), pp. 133–140, 2003.
- [1428] S. Urieli *et al.* Optimal reconstruction of images from localized phase. *IEEE Transactions on Image Processing*, Vol. 7(6), pp. 838–853, 1998.

V

- [1429] P.P. Vaidyanathan and Vincent C. Liu. Classical sampling theorems in the context of multirate and polyphase digital filter bank structures. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-36, No. 9, pp. 1480–1495, 1988.
- [1430] P.P. Vaidyanathan. **Multirate Systems And Filter Banks**. Prentice Hall, 1992.
- [1431] C. Vaidyanathan and K.M. Buckley. A sampling theorem for EEG electrode configuration. *IEEE Transactions on Biomedical Engineering*, Vol. 44(1), pp. 94–97, 1997.
- [1432] P.P. Vaidyanathan. Generalizations of the sampling theorem: seven decades after Nyquist. *IEEE Transactions on Circuits and Systems I – Fundamental Theory and Applications*, Vol. 48(9), pp. 1094–1109, 2001.
- [1433] Lucia Valbonesi and Ansari. Frame-based approach for peak-to-average power ratio reduction in OFDM, *IEEE Transactions on Communications*. Vol. 54(9), pp. 1604–1613, 2006.
- [1434] P.H. Van Cittert. Zum einfluss der splatbreite auf die intensitat-swerteilung in spektrallinien II. *Z. Phys.*, Vol. 69, pp. 298–308, 1931.
- [1435] L. Valbonesi and R. Ansari. POCS-based frame-theoretic approach for peak-to-average power ratio reduction in OFDM. *IEEE 60th Vehicular Technology Conference*, 2004. Vol. 1, pp. 631–634, 2004.
- [1436] E. Van der Ouderaa and J. Renneboog. Some formulas and application of nonuniform sampling of bandwidth limited signal. *IEEE Transactions Instrumentation & Measurement*, Vol. IM-37, No. 3, pp. 353–357, 1988.
- [1437] P.J. Van Otterloo and J.J. Gerbrands. A note on sampling theorem for simply connected closed contours. *Information & Control*, Vol. 39, pp. 87–91, 1978.
- [1438] G.A. Vanasse and H. Sakai. Fourier spectroscopy. In **Progress in Optics**, E. Wolf, editor. North-Holland, Amsterdam, 1967.
- [1439] A. VanderLugt. Optimum sampling of Fresnel transforms. *Applied Optics*, Vol. 29, No. 23, pp. 3352–3361, 1990.
- [1440] A.B. VanderLugt. Signal detection by complex spatial filtering. *IEEE Transactions Information Theory*, Vol. IT-10, pp. 2–8, 1964.
- [1441] P.J. Vanotterloo and J.J. Gerbrands. Note on a Sampling Theorem for Simply Connected Closed Contours. *Information and Control*, Vol. 39(1), pp. 87–91, 1978.

- [1442] Harry L. Van Trees. **Detection, Estimation, and Modulation Theory, Part I.** Wiley-Interscience; Reprint edition, 2001.
- [1443] M.E. Van Valkenburg, **Introduction to Modern Network Synthesis.** John Wiley & Sons, 1960.
- [1444] B.J. van Wyk *et al.* POCS-based graph matching algorithm. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 26(11), pp. 1526–1530, 2004.
- [1445] R.G. Vaughan, N.L. Scott, and D.R. White. The Theory of Bandpass Sampling. *IEEE Transactions Signal Processing*, Vol. SP-39, No. 9, pp. 1973–1984, 1991.
- [1446] R. Veldhuis. **Restoration of Lost Samples in Digital Signals.** Prentice Hall, New York, 1990.
- [1447] R. Venkataramani and Y. Bresler. Sampling theorems for uniform and periodic nonuniform MIMO sampling of multiband signals. *IEEE Transactions on Signal Processing*, Vol. 51(12), pp. 3152–3163, 2003.
- [1448] David Vernon. **Fourier Vision - Segmentation and Velocity Measurement Using the Fourier Transform.** Springer, 2001.
- [1449] G.A. Viano. On the extrapolation of optical image data. *Journal Math. Phys.*, Vol. 17, pp. 1160–1165, 1976.
- [1450] U. Visitkitjakarn, Wai-Yip Chan, and Yongyi Yang. Recovery of speech spectral parameters using convex set projection. *1999 IEEE Workshop on Speech Coding Proceedings*, pp. 34–36, 1999.
- [1451] G. Viswanath and T.V. Sreenivas. Cone-kernel representation versus instantaneous power spectrum. *IEEE Transactions on Signal Processing*, Vol. 47(1), pp. 250–254, 1999.
- [1452] H. Voelker. Toward a unified theory of modulation. *Proceedings IEEE*, Vol. 54, p. 340, 1966.
- [1453] L. Vogt. Sampling sums with kernels of finite oscillation. *Numer. Funct. Anal., Optimiz.*, Vol. 9, pp. 1251–1270, 1987/88.
- [1454] M. von Laue. Die freiheitsgrade von strahlenbundeln. *Ann. Phys.*, Vol. 44, pp. 1197–1212, 1976.
- [1455] J.J. Voss. A sampling theorem with nonuniform complex nodes. *Journal of Approximation Theory*, Vol. 90(2), pp. 235–254, 1997.

W

- [1456] L.A. Wainstein and V.D. Zubakov. **Extraction of Signals from Noise.** Prentice-Hall, Englewood Cliffs, NJ, 1962.
- [1457] James S. Walker. **Fourier Analysis.** Oxford University Press, 1988.
- [1458] J.F. Walkup. Space-variant coherent optical processing. *Optical Engineering*, Vol. 19, pp. 339–346, 1980.
- [1459] G.G. Walter. A sampling theorem for wavelet subspaces. *IEEE Transactions Information Theory*, Vol. 38, pp. 881–884, 1992.
- [1460] P.T. Walters. Practical applications of inverting spectral turbidity data to provide aerosol size distributions. *Applied Optics*, Vol. 19, pp. 2353–2365, 1980.
- [1461] A. Walther. The question of phase retrieval in optics. *Opt. Acta*, pp. 41–49, 1962.
- [1462] A. Walther. Gabor's theorem and energy transfer through lenses. *Journal of the Optical Society America*, Vol. 57, pp. 639–644, 1967.
- [1463] A. Walther. Radiometry and coherence. *Journal of the Optical Society America*, Vol. 58, pp. 1256–1259, 1968.
- [1464] Danzhi Wang, Li Shujian and Shao Dingrong. The analysis of frequency-hopping signal acquisition based on Cohen-reassignment joint time-frequency distribution. *Proceedings. Asia-Pacific Conference on Environmental Electromagnetics, 2003. CEEM 2003.* pp. 21–24, 2003.
- [1465] J.Y. Wang, P.P. Zhu, X. Zheng X, *et al.* Study on the inside source hologram reconstruction algorithm based on discrete Fourier transform *Acta Physica Sinica*, Vol. 54(3), pp. 1172–1177, 2005.
- [1466] H.S.C. Wang. On Cauchy's interpolation formula and sampling theorems. *Journal Franklin Institute*, Vol. 289, pp. 233–236, 1970.

- [1467] Y. Wang and Q.F. Zhu. Error control and concealment for video communication: A review. *Proceedings IEEE Multimedia Signal Processing*, pp. 974–997, 1998.
- [1468] Q. Wang and L.N. Wu. Translation invariance and sampling theorem of wavelet. *IEEE Transactions on Signal Processing*, Vol. 48(5), pp. 1471–1474, 2000.
- [1469] Q. Wang and L.N. Wu. A sampling theorem associated with quasi-fourier transform. *IEEE Transactions on Signal Processing*, Vol. 48(3), pp. 895–895, 2000.
- [1470] Yiwei Wang, J.F. Doherty, and R.E. Van Dyck. A POCS-based algorithm to attack image watermarks embedded in DFT amplitudes. *Proceedings of the 43rd IEEE Midwest Symposium on Circuits and Systems*, 2000. Vol. 3, pp. 1100–1103, 2000.
- [1471] G. Watson **Treatise on the Theory of Bessel Functions**, 2nd ed. Cambridge University Press, Cambridge, 1962.
- [1472] H.J. Weaver. **Applications of Discrete and Fourier Analysis**. Wiley, New York, 1983.
- [1473] C. Weerasinghe, A. Wee-Chung Liew and Hong Yan. Artifact reduction in compressed images based on region homogeneity constraints using the projection onto convex sets algorithm. *IEEE Transactions on Circuits and Systems for Video Technology*, Vol. 12(10), pp. 891–897, 2002.
- [1474] S.J. Wein. Sampling theorem for the negative exponentially correlated output of lock-in amplifiers. *Applied Optics*, Vol. 28(20), pp. 4453–4457, 1989.
- [1475] A. Weinberg and B. Liu. Discrete time analysis of nonuniform sampling first-and-second order digital phase lock loop. *IEEE Transactions Communications*, pp. 123–137, 1974.
- [1476] P. Weiss. Sampling theorems associated with Sturm-Liouville systems. *Bull. Amer. Math. Society*, Vol. 63, p. 242, 1957.
- [1477] P. Weiss. An estimate of the error arising from misapplication of the sampling theorem. *Amer. Math. Society Notices 10-351*, (Abstract No. 601–54), 1963.
- [1478] F. Weisz. **Summability of Multi-Dimensional Fourier Series and Hardy Spaces**. Springer, 2002.
- [1479] A.L. Wertheimer and W.L. Wilcock. Light scattering measurements of particle distributions. *Applied Optics*, Vol. 15, pp. 1616–1620, 1976.
- [1480] L.B. White. Signal synthesis from Cohen’s class of bilinear time-frequency signal representations using convex projections. *1991 International Conference on Acoustics, Speech, and Signal Processing*, 1991. ICASSP-91. Vol. 3, pp. 2053–2056, 1991.
- [1481] Robert White. **Chromatography/Fourier Transform Infrared Spectroscopy and its Applications**. CRC, 1989.
- [1482] E.T. Whittaker. On the functions which are represented by the expansions of the interpolation theory. *Proceedings Royal Society Edinburgh*, Vol. 35, pp. 181–194, 1915.
- [1483] E.T. Whittaker and G.N. Watson. **A Course of Modern Analysis**. Cambridge University Press, Cambridge, 1927, Chaps. 20 and 21.
- [1484] J.M. Whittaker. On the cardinal function of interpolation theory. *Proceedings Math. Society Edinburgh*, Vol. 2, pp. 41–46, 1927–1929.
- [1485] J.M. Whittaker. The Fourier theory of the cardinal function. *Proceedings Math. Society Edinburgh*, Vol. 1, pp. 169–176, 1929.
- [1486] J.M. Whittaker. **Interpolatory Function Theory**. Cambridge Tracts in Mathematical Physics, No. 33, Cambridge University Press, Cambridge, 1935.
- [1487] G. Whyte and J. Courtial. Experimental demonstration of holographic three-dimensional light shaping using a Gerchberg-Saxton algorithm. *New Journal of Physics*. 7 No. 117, 2005.
- [1488] Roman Wienands and Wolfgang Joppich. **Practical Fourier Analysis for Multigrid Methods**. Chapman & Hall/CRC, 2004.
- [1489] N. Wiener. **Extrapolation, Interpolation, and Smoothing of Stationary Time Series**. Wiley and Sons Inc., New York, 1949.
- [1490] N. Wiener. **Collected Works, Vol. III** (ed. by P.R. Masani). M.I.T. Press, Cambridge, MA., 1981.
- [1491] E. Wigner. On the quantum correction for thermodynamic equilibrium. *Phys. Rev.*, Vol. 40, pp. 749–759, 1932.
- [1492] Howard J. Wilcox and David L. Myers. **An Introduction to Lebesgue Integration and Fourier Series**. Dover Publications, 1995.

- [1493] R.G. Wiley, H. Schwarzlander, and D.D. Weiner. Demodulation procedure for very wideband FM. *IEEE Transactions Commun.*, Vol. COM-25, pp. 318–327, 1977.
- [1494] R.G. Wiley. On an iterative technique for recovery of bandlimited signals. *Proceedings IEEE*, pp. 522–523, 1978.
- [1495] R.G. Wiley. Recovery of bandlimited signals from unequally spaced samples. *IEEE Transactions Communications*, Vol. COM-26, pp. 135–137, 1978.
- [1496] Ron R. Williams. **Spectroscopy and the Fourier Transform**. John Wiley & Sons, 1995.
- [1497] Earl G. Williams. **Fourier Acoustics: Sound Radiation and Nearfield Acoustical Holography**. Academic Press, 1999.
- [1498] W.J. Williams. Reduced interference distributions: Biological applications and interpretations. *Proceedings of the IEEE*. Vol. 84(9), pp. 1264–1280, 1996.
- [1499] N.P. Willis and Y. Bresler. Norm invariance of minimax interpolation *IEEE Transactions Information Theory*, Vol. 38, No. 3, pp. 1177–1181, 1992.
- [1500] T. Wilson and C. Sheppard. **Theory and Practice of Scanning Microscopy**. Academic Press, London, 1978.
- [1501] Steve Winder. **Analog and Digital Filter Design**, Second Edition, Newnes, 2002.
- [1502] D.J. Wingham. The reconstruction of a band-limited function and its Fourier transform from a finite number of samples at arbitrary locations by singular value decomposition. *IEEE Transactions Signal Processing*, Vol. SP-40, pp. 559–570, 1992.
- [1503] J.T. Winthrop. Propagation of structural information in optical wave fields. *Journal of the Optical Society America*, Vol. 61, pp. 15–30, 1971.
- [1504] E. Wolf. Coherence and radiometry. *Journal of the Optical Society America*, Vol. 68, pp. 6–17, 1982.
- [1505] E. Wolf. New theory of partial coherence in the space-frequency domain. Part I: Spectra and cross spectra of steady-state sources. *Journal of the Optical Society America*, Vol. 72, pp. 343–351, 1982.
- [1506] E. Wolf. Coherent-mode propagation in spatially bandlimited wave fields. *Journal of the Optical Society America A*, Vol. 3, pp. 1920–1924, 1986.
- [1507] H. Wolter. Zum grundtheorem der informationstheorie, insbesondere in der optik. *Physica*, pp. 457–475, 1958.
- [1508] H. Wolter. On basic analogies and principal differences between optical and electronic information. In **Progress in Optics**, E. Wolf, editor. North-Holland, Amsterdam, pp. 155–210, 1961.
- [1509] John W. Woods. **Multidimensional Signal, Image, and Video Processing and Coding**. Academic Press, 2006.
- [1510] P.M. Woodward. **Probability and Information Theory with Applications to Radar**. Pergamon Press Ltd., London, 1953.
- [1511] C.R. Worthington. Sampling theorem expressions in membrane diffraction. *Journal of Applied Crystallography*, Vol. 21, Part 4, pp. 322–325, 1988.
- [1512] E.G. Woschni. Braking the sampling theorem and its consequences. *Annalen der Physik*, Vol. 43(3–5), pp. 390–396, 1986.
- [1513] J.M. Wozencraft and I.M. Jacobs. **Principles of Communication Engineering**. John Wiley & Sons, Inc., New York, 1965.
- [1514] J.S. Wu and J.C.H. Spence. Phase extension in crystallography using the iterative Fienup-Gerchberg-Saxton algorithm and Hilbert transforms. *Acta Crystallographica, Section A*. 59, pp. 577–583, Part 6 2003.
- [1515] W.C.S. Wu, Kwan F. Cheung and R.J. Marks II. Multidimensional Projection Window. *IEEE Transactions on Circuits and Systems*, Vol. 35, No. 9, pp. 1168–1172, 1988.

X

- [1516] X. Xia and Z. Zhang. A note on difference methods for the prediction of band-limited signals from past samples. *IEEE Transactions Information Theory*, Vol. IT-37, No. 6, pp. 1662–1665, 1991.

- [1517] X.G. Xia and Z.Zhang. On sampling theorem, wavelets and wavelet transforms. *IEEE Transactions on Signal Processing*, Vol. 41(12), pp. 3524–3535, 1993.
- [1518] Xg Xia. Extensions of the Papoulis-Gerchberg algorithm for analytic functions. *Journal of Mathematical Analysis and Applications*, Vol. 179(1), pp. 187–202, 1993.
- [1519] Xiang-Gen Xia. On bandlimited signals with fractional Fourier transform. *IEEE Signal Processing Letters*, Vol. 3(3), pp. 72–74, 1996.
- [1520] J. Xian and W. Lin, Sampling and reconstruction in time-warped spaces and their applications. *Applied Mathematics and Computation*, Vol. 157(1), pp. 153–173, 27, 2004.
- [1521] Zelong Xiao, Jianzhong Xu, Shusheng Peng and Shanxiang Mou. Super-Resolution Image Restoration of a PMMW Sensor Based on POCS Algorithm 1st International Symposium on Systems and Control in Aerospace and Astronautics, 2006. ISSCAA 2006. pp. 680–683, 2006.
- [1522] Gang Xiong, Zhao Hui-chang, Wang Li-Jun and Liu Ji-Bin. The wide sense time-frequency representation based on the wavelet and its relation with Cohen's class. *ICMMT 4th International Conference on, Proceedings Microwave and Millimeter Wave Technology*, 2004. pp. 677–680, 2004.
- [1523] C.Y. Xu, F. Kamalabadi, and S.A. Boppart. Comparative performance analysis of time-frequency distributions for spectroscopic optical coherence tomography. *Applied Optics*, Vol. 44(10), pp. 1813–1822, 2005.

Y

- [1524] A.D. Yaghjian. Simplified approach to probe-corrected spherical near-field scanning. *Electron. Letters*, Vol. 20, pp. 195–196, 1984.
- [1525] A.D. Yaghjian. Antenna coupling and near-field sampling in plane-polar coordinates. *IEEE Transactions Antennas & Propagation*, Vol. 40, pp. 304–312, 1992.
- [1526] M. Yamaguchi, N. Ohyama, T. Honda, J. Tsujiuchi, and S. Hiratsuka. A color image sampling method with suppression of Moiré fringes. *Optical Communication*, Vol. 69, pp. 349–352, 1989.
- [1527] H. Yan and J.T. Mao. The realation of low-frequency restoration methods to the Gerchberg-Papoulis algorithm. *Magnetic Resonance in Medicine*, Vol. 16(1), pp. 166–172, 1990.
- [1528] M. Yanagida and O. Kakusho. Generalized sampling theorem and its application by uniform sampling. *Electronics & Communications in Japan*, Vol. 57(11), pp. 42–49, 1974.
- [1529] G. Yang and B. Shi. A time-frequency distribution based on a moving and combined kernel and its application in the fault diagnosis of rotating machinery. *Key Engineering Materials*. 245–2, pp. 183–190, 2003.
- [1530] G.G. Yang and E. Leith. An image deblurring method using diffraction gratings. *Optical Communication*, Vol. 36, pp. 101–106, 1981.
- [1531] G.Z. Yang, B.Z. Dong, *et al.* Gerchberg-Saxton and Yang-Gu algorithms for phase retrieval in a nonunitary transform system - a comparison. *Applied Optics*, Vol. 33(2), pp. 209–218, 1994.
- [1532] S.Z. Yang, Z.X. Cheng, and Y.Y. Tang. Approximate sampling theorem for bivariate continuous function. *Applied Mathematics and Mechanics - English Edition*, Vol. 24(11), pp. 1355–1361, 2003.
- [1533] Y. Yang, N.P. Galatsanos, and A. K. Katsaggelos. Projection-Based Spatially-Adaptive Reconstruction of Block Transform Compressed Images. *IEEE Transactions on Image Processing*, Vol. 4, No. 7, pp. 896–908, 1995.
- [1534] Y. Yang and N.P. Galatsanos. Removal of compression artifacts using projections onto convex sets and line process modeling. *IEEE Transactions Image Processing*, Vol. 10(6), pp. 1345–1357, 1997.
- [1535] Yongyi Yang, N.P. Galatsanos. Removal of compression artifacts using projections onto convex sets and line process modeling. *IEEE Transactions on Image Processing*, Vol. 6(10), pp. 1345–1357, 1997.
- [1536] K. Yao. **On some representations and sampling expansions for bandlimited signals.** Ph.D. thesis, Dept. of Electrical Engineering, Princeton University, Princeton, NJ, 1965.

- [1537] K. Yao. Applications of reproducing kernel Hilbert spaces – Bandlimited signal models. *Information & Control*, Vol. 11, pp. 429–444, 1967.
- [1538] K. Yao and J.B. Thomas. On truncation error bounds for sampling representations of bandlimited signals. *IEEE Transactions Aerospace & Electronic Systems*, Vol. AES–2, p. 640, 1966.
- [1539] K. Yao and J.B. Thomas. On some stability and interpolating properties of nonuniform sampling expansions. *IEEE Transactions Circuit Theory*, Vol. CT–14, pp. 404–408, 1967.
- [1540] K. Yao and J.B. Thomas. On a class of nonuniform sampling representation. *Symp. Signal Translations Processing* (Columbia Univ.), 1968.
- [1541] B. Yegnanarayana, S. Tanveer Fatima, B.T.K.R. Nehru, and B. Venkataramanan. Significance of initial interpolation in bandlimited signal interpolation. *IEEE Transactions Acoust., Speech, Signal Processing*, Vol. ASSP-37, No. 1, pp. 151–152, 1989.
- [1542] Shu-jen Yeh and Henry Stark. Iterative and one-step reconstruction from nonuniform samples by convex projections. *Journal of the Optical Society America A*, Vol. 7, No. 3, pp. 491–499, 1990.
- [1543] Shu-jeh Yeh and Henry Stark. Learning in neural nets using projection methods. *Optical Computing and Processing*, Vol. 1, No. 1, pp. 47–59, 1991.
- [1544] J.L. Yen. On the nonuniform sampling of bandwidth limited signals. *IRE Transactions Circuit Theory*, Vol. CT–3, pp. 251–257, 1956.
- [1545] J.L. Yen. On the synthesis of line sources and infinite strip sources. *IRE Transactions Antennas & Propagation*, pp. 40–46, 1957.
- [1546] I. Samil Yetik and A. Nehorai. Beamforming using the fractional Fourier transform. *IEEE Transactions on Signal Processing*, Vol. 51(6), pp. 1663–1668, 2003.
- [1547] Changboon Yim and Nam Ik Cho. Blocking artifact reduction method based on non-iterative POCS in the DCT domain. *ICIP 2005, IEEE International Conference on Image Processing*, Vol. 2, pp. 11–14, 2005.
- [1548] H. Yoshida and S. Takata. The growth of Fourier’s theory of heat conduction and his experimental study. *Historia Sci.*, (2) 1 (1), pp. 1–26, 1991.
- [1549] D.C. Youla. Generalized image restoration by method of alternating orthogonal projections. *IEEE Transactions Circuits & Systems*, Vol. CAS–25, pp. 694–702, 1978.
- [1550] D.C. Youla and H. Webb. Image restoration by the method of convex projection: Part 1 - theory. *IEEE Transactions Medical Imaging*, Vol. MI–1, pp. 81–94, 1982.
- [1551] D.C. Youla. In **Image Recovery: Theory and Applications**, Mathematical theory of image restoration by the method of convex projections, (H. Stark, ed.), Academic Press Inc., Orlando, FL, pp. 29–77, 1987.
- [1552] D.C. Youla and V. Velasco. Extensions of a result on the synthesis of signals in the presence of inconsistent constraints. *IEEE Transactions Circuits & Systems*, Vol. CAS–33, pp. 465–468, 1986.
- [1553] Robert M. Young. **An Introduction to Nonharmonic Fourier Series**. Academic Press; Revised First Ed., 2001.
- [1554] F.T.S. Yu. Image restoration, uncertainty, and information. *Applied Optics*, Vol. 8, pp. 53–58, 1969.
- [1555] F.T.S. Yu. Optical resolving power and physical realizability. *Optical Communication*, Vol. 1, pp. 319–322, 1970.
- [1556] F.T.S. Yu. Coherent and digital image enhancement, their basic differences and constraints. *Optical Communication*, Vol. 3, pp. 440–442, 1971.
- [1557] Gong-San Yu *et al.* POCS-based error concealment for packet video using multiframe overlap information. *IEEE Transactions on Circuits and Systems for Video Technology*, Vol. 8(4), pp. 422–434, 1998.
- [1558] Li Yu, Kuan-Quan Wang, Cheng-Fa Wang and D. Zhang. Iris verification based on fractional Fourier transform. *Proceedings. 2002 International Conference on Machine Learning and Cybernetics*, 2002. Vol. 3, pp. 1470–1473, 2002.
- [1559] E. Yudilevich and H. Stark. Interpolation from samples on a linear spiral scan. *IEEE Transactions Medical Imaging*, Vol. MI–6, pp. 193–200, 1987.

[1560] E. Yudilevich and H. Stark. Spiral sampling: Theory and application to magnetic resonance imaging, *Journal of the Optical Society America A*, Vol. 5, pp. 542–553, 1988.

Z

[1561] L.A. Zadeh. A general theory of linear signal transmission systems, *Journal Franklin Institute*, Vol. 253, pp. 293–312, 1952.

[1562] L.A. Zadeh. Fuzzy sets. *Information and Control*, Vol. 8, pp. 338–353, 1965; reprinted in J.C. Bezdek, editor, **Fuzzy Models for Pattern Recognition**, IEEE Press, 1992.

[1563] Samy Zafrany. **Fourier Series and Integral Transforms**. Cambridge University Press, 1997.

[1564] J. Zak. Finite translations in solid-state physics. *Phys. Rev. Letters*, Vol. 19, pp. 1385–1387, 1967.

[1565] J. Zak. Dynamics of electrons in solids in external fields. *Phys. Rev.*, Vol. 168, pp. 686–695, 1968.

[1566] J. Zak. The kq -representation in the dynamics of electrons in solids. *Solid State Physics*, Vol. 27, pp. 1–62, 1972.

[1567] M. Zakai. Band-limited functions and the sampling theorem. *Information & Control*, Vol. 8, pp. 143–158, 1965.

[1568] A. Zakhor. Sampling schemes for reconstruction of multidimensional signals from multiple level threshold crossing. In *Proceedings ICASSP '88*, 1988.

[1569] A. Zakhor, R. Weisskoff, and R. Rzedzian. Optimal sampling and reconstruction of MRI signals resulting from sinusoidal gradients. *IEEE Transactions Signal Processing*, Vol. SP-39, No. 9, pp. 2056–2065, 1988.

[1570] Z. Zalevsky, D. Mendlovic and R.G. Dorsch. Gerchberg-Saxton algorithm applied in the fractional Fourier or the Fresnel domain. *Optics Letters*, Vol. 21(12), pp. 842–844, 1996.

[1571] H. Zander. Fundamentals and methods of digital audio technology. II. Sampling process. *Fernseh- und Kino-Tech.*, Vol. 38, pp. 333–338, 1984.

[1572] Ahmed I. Zayed. Sampling expansion for the continuous Bessel transform. *Applied Anal.*, Vol. 27, pp. 47–65, 1988.

[1573] Ahmed I. Zayed, G. Hinsen, and P. Butzer. On Lagrange interpolation and Kramer-type sampling theorems associated with Sturm-Liouville problems. *SIAM Journal Applied Math*, Vol. 50, No. 3, pp. 893–909, 1990.

[1574] Ahmed I. Zayed, M.A. Elsayed, and M.H. Annaby. On Lagrange interpolations and Kramer sampling theorem associated with self-adjoint boundary-value problems. *Journal of Mathematical Analysis and Applications*, Vol. 158(1), pp. 269–284, 1991.

[1575] Ahmed I. Zayed. On Kramer sampling theorem associated with general Strum-Liouville problems and Largange interpolation. *SIAM J. on Applied Mathematics*, Vol. 51(2), pp. 575–604, 1991.

[1576] Ahmed I. Zayed. Kramer sampling theorem for multidimensional signals and its relationship with Largrange - type interpolations. *Multidimensional Systems and Signal Processing*, Vol. 3(4), pp. 323–340, 1992.

[1577] Ahmed I. Zayed. **Advances in Shannon's Sampling Theory**. CRC, 1993.

[1578] Ahmed I. Zayed. A sampling theorem for signals band-limited to a general domain in several dimensions. *Journal of Mathematical Analysis and Applications*, Vol. 187(1), pp. 196–211, 1994.

[1579] Ahmed I. Zayed. On the relationship between the Fourier and fractional Fourier transforms. *IEEE Signal Processing Letters*, Vol. 3(12), pp. 310–311, 1996.

[1580] Ahmed I. Zayed and A.G. Garcia. Sampling theorem associated with a Dirac operator and the Hartley transform. *Journal of Mathematical Analysis and Applications*, Vol. 214(2), pp. 587–598, 1997.

[1581] Ahmed I. Zayed. Hilbert transform associated with the fractional Fourier transform. *IEEE Signal Processing Letters*, Vol. 5(8), pp. 206–208, 1998.

[1582] A.H. Zemanian. **Distribution Theory and Transform Analysis**. McGraw-Hill, New York, 1965.

[1583] A.H. Zemanian. **Generalized Integral Transforms**. Interscience, New York, 1968.

- [1584] Bilin Zhang, Shunsuke Sato, and P.C. Ching. Speech signal processing using a time-frequency distribution of Cohen's class. *Proceedings of the IEEE-SP International Symposium on Time-Frequency and Time-Scale Analysis*, pp. 624–627, 1994.
- [1585] B. Zhang and S. Sato. A time-frequency distribution of Cohen's class with a compound kernel and its application to speech signal processing. *IEEE Transactions on Signal Processing*, Vol. 42(1), pp. 54–64, 1994.
- [1586] C. Zhao and P. Zhao. Sampling theorem and irregular sampling theorem for multiwavelet subspaces. *IEEE Transactions on Signal Processing*, Vol. 53(2), pp. 705–713, Part 1, 2005.
- [1587] Yunxin Zhao, L.E. Atlas and R.J. Marks II. The use of cone-shape kernels for generalized time-frequency representations of nonstationary signals. *IEEE Transactions on Acoustics, Speech and Signal Processing*, Vol. 38, pp. 1084–1091, 1990.
- [1588] Di Zhang and Minghui Du. High-resolution image reconstruction using joint constrained edge pattern recognition and POCS formulation. Control, Automation, Robotics and Vision Conference, 2004. Vol. 2, 6–9, pp. 832–837, 2004.
- [1589] G.T. Zheng, P.D. McFadden. A time-frequency distribution for analysis of signals with transient components and its application to vibration analysis. *Journal of Vibration and Acoustics – Transactions of the ASME*. Vol. 121(3), pp. 328–333, 1999.
- [1590] L. Zhizhiashvili. **Trigonometric Fourier Series and their Conjugates**. Springer, 1996.
- [1591] X.W. Zhou and W.C. Sun. On the sampling theorem for wavelet subspaces. *Journal of Fourier Analysis and Applications*, Vol. 5(4), pp. 347–354, 1999.
- [1592] X.W. Zhou and W.C. Sun. An aspect of the sampling theorem. *International Journal of Wavelets, Multiresolution and Information Processing*, Vol. 3(2), pp. 247–255, 2005.
- [1593] Y.M. Zhu. Generalized sampling theorem. *IEEE Transactions on Circuits and Systems - Analog and Digital Signal Processing*, Vol. 39(8), pp. 587–588, 1992.
- [1594] Yang-Ming Zhu, Zhi-Zhong Wang, and Yu Wei. A convex projections approach to spectral analysis. *IEEE Transactions on Signal Processing*, Vol. 42(5), pp. 1284–1287, May 1994.
- [1595] Anders E. Zonst. **Understanding the FFT, Second Edition. Revised**. Citrus Press, 2000.
- [1596] Ju Jia Zou and Hong Yan. A deblocking method for BDCT compressed images based on adaptive projections. *IEEE Transactions on Circuits and Systems for Video Technology*, Vol. 15(3), pp. 430–435, 2005.
- [1597] S. Zozor and P.O. Amblard. Stochastic Resonance in Discrete Time Nonlinear AR(1) Models. *IEEE Transactions on Signal Processing*, Vol. 47, No. 1, pp. 108–122, 1999.
- [1598] Gary Zukav, **Dancing Wu Li Masters: An Overview of the New Physics**. Harper Perennial Modern Classics, 2001.