

- put. *Graphics Image Proc.*, vol. 5, pp. 68 – 105.
- Knowlton, K. [1980]. "Progressive Transmission of Gray-Scale and Binary Pictures by Simple, Efficient, and Lossless Encoding Schemes." *Proc. IEEE*, vol. 68, no. 7, pp. 885 – 896.
- Kohler, R. J., and Howell, H. K. [1963]. "Photographic Image Enhancement by Superposition of Multiple Images." *Photogr. Sci. Eng.*, vol. 7, no. 4, pp. 241 – 245.
- Kokaram, A. [1998]. *Motion Picture Restoration*, Springer-Verlag, New York.
- Kramer, H. P., and Mathews, M. V. [1956]. "A Linear Coding for Transmitting a Set of Correlated Signals." *IRE Trans. Info. Theory*, vol. IT-2, pp. 41 – 46.
- Langdon, G. C., and Rissanen, J. J. [1981]. "Compression of Black—White Images with Arithmetic Coding." *IEEE Trans. Comm.*, vol. COM-29, no. 6, pp. 858 – 867.
- Lantuéjoul, C. [1980]. "Skeletonization in Quantitative Metallography." In *Issues of Digital Image Processing*, Haralick, R. M., and Simon, J. C. (eds.), Sijthoff and Noordhoff, Groningen, The Netherlands.
- Latecki, L. J., and Lakämper, R. [1999]. "Convexity Rule for Shape Decomposition Based on Discrete Contour Evolution," *Computer Vision and Image Understanding*, vol. 73, no. 3, pp. 441 – 454.
- Le Gall, D., and Tabatabai, A. [1988]. "Sub-band Coding of Digital Images Using Symmetric Short Kernel Filters and Arithmetic Coding Techniques." *IEEE International Conference on Acoustics, Speech, and Signal Processing*, New York, NY, pp. 761 – 765.
- Ledley, R. S. [1964]. "High-Speed Automatic Analysis of Biomedical Pictures." *Science*, vol. 146, no. 3461, pp. 216 – 223.
- Lee, J.-S., Sun, Y.-N., and Chen, C.-H. [1995]. "Multiscale Corner Detection by Using Wavelet Transforms." *IEEE Trans. Image Processing*, vol. 4, no. 1, pp. 100 – 104.
- Lee, S. U., Chung, S. Y., and Park, R. H. [1990]. "A Comparative Performance Study of Several Global Thresholding Techniques for Segmentation." *Comput. Vision, Graphics, Image Proc.*, vol. 52, no. 2, pp. 171 – 190.
- Lehmann, T. M., Gönner, C., and Spitzer, K. [1999]. "Survey: Interpolation Methods in Medical Image Processing," *IEEE Trans. Medical Imaging*, vol. 18, no. 11, pp. 1049 – 1076.
- Lema, M. D., and Mitchell, O. R. [1984]. "Absolute Moment Block Truncation Coding and Its Application to Color Images." *IEEE Trans. Comm.*, vol. COM-32, no. 10, pp. 1148 – 1157.
- Levine, M. D. [1985]. *Vision in Man and Machine*, McGraw-Hill, New York.
- Liang, K.-C., and Kuo, C.-C. J. [1991]. "Waveguide: A Joint Wavelet-Based Image Representation and Description System." *IEEE Trans. Image Processing*, vol. 8, no. 11, pp. 1619 – 1629.
- Liang, Q., Wendelhag, J. W., and Gustavsson, T. [2000]. "A Multiscale Dynamic Programming Procedure for Boundary Detection in Ultrasonic Artery Images," *IEEE Trans. Medical Imaging*, vol. 19, no. 2, pp. 127 – 142.
- Lillesand, T. M., and Kiefer, R. W. [1999]. *Remote Sensing and Image Interpretation*, John Wiley & Sons, New York.

- Lim, J. S. [1990]. *Two-Dimensional Signal and Image Processing*, Prentice Hall, Upper Saddle River, N.J.
- Limb, J. O., and Rubinstein, C. B. [1978]. "On the Design of Quantizers for DPCM Coders: A Functional Relationship Between Visibility, Probability, and Masking." *IEEE Trans. Comm.*, vol. COM-26, pp. 573 – 578.
- Lindblad, T., and Kinser, J. M. [1998]. *Image Processing Using Pulse-Coupled Neural Networks*, Springer-Verlag, New York.
- Linde, Y., Buzo, A., and Gray, R. M. [1980]. "An Algorithm for Vector Quantizer Design." *IEEE Trans. Comm.*, vol. COM-28, no. 1, pp. 84 – 95.
- Lippmann, R. P. [1987]. "An Introduction to Computing with Neural Nets." *IEEE ASSP Magazine*, vol. 4, pp. 4 – 22.
- Liu, J., and Yang, Y.-H. [1994]. "Multiresolution Color Image Segmentation," *IEEE Trans Pattern Anal. Machine Intell.*, vol. 16, no. 7, pp. 689 – 700.
- Liu-Yu, S., and Antipolis, M. [1993]. "Description of Object Shapes by Apparent Boundary and Convex Hull," *Pattern Recog.*, vol. 26, no. 1, pp. 95 – 107.
- Lo, R.-C., and Tsai, W.-H. [1995]. "Gray-Scale Hough Transform for Thick Line Detection in Gray-Scale Images," *Pattern Recog.*, vol. 28, no. 5, pp. 647 – 661.
- Loncaric, S. [1998]. "A Survey of Shape Analysis Techniques," *Pattern Recog.*, vol. 31, no. 8, pp. 983 – 1010.
- Lu, H. E., and Wang, P. S. P. [1986]. "A Comment on 'A Fast Parallel Algorithm for Thinning Digital Patterns.'" *Comm. ACM*, vol. 29, no. 3, pp. 239 – 242.
- Lu, N. [1997]. *Fractal Imaging*, Academic Press, New York.
- Lu, W.-S and Antoniou, A. [1992]. "Two-Dimensional Digital Filters," Marcel Dekker, New York.
- MacAdam, D. L. [1942]. "Visual Sensitivities to Color Differences in Daylight," *J. Opt. Soc. Am.*, vol. 32, pp. 247 – 274.
- MacAdam, D. P. [1970]. "Digital Image Restoration by Constrained Deconvolution." *J. Opt. Soc. Am.*, vol. 60, pp. 1617 – 1627.
- Maki, A., Nordlund, P., and Eklundh, J.-O. [2000]. "Attentional Scene Segmentation: Integrating Depth and Motion," *Computer Vision and Image Understanding*, vol. 78, no. 3, pp. 351 – 373.
- Malacara, D. [2001]. *Color Vision and Colorimetry: Theory and Applications*, SPIE Optical Engineering Press, Bellingham, Wash.
- Mallat, S. [1987]. "A Compact Multiresolution Representation: The Wavelet Model." *Proc. IEEE Computer Society Workshop on Computer Vision*, IEEE Computer Society Press, Washington, D. C., pp. 2 – 7.
- Mallat, S. [1989a]. "A Theory for Multiresolution Signal Decomposition: The Wavelet Representation." *IEEE Trans. Pattern Anal. Mach. Intell.*, vol. PAMI-11, pp. 674 – 693.
- Mallat, S. [1989b]. "Multiresolution Approximation and Wavelet Orthonormal Bases of L^2 ."

- Trans. American Mathematical Society*, vol. 315, pp. 69 – 87.
- Mallat, S. [1989c]. “Multifrequency Channel Decomposition of Images and Wavelet models.” *IEEE Trans. Acoustics, Speech, and Signal Processing*, vol. 37, pp. 2091 – 2110.
- Mallat, S. [1998]. *A Wavelet Tour of Signal Processing*, Academic Press, Boston, Mass.
- Mallat, S. [1999]. *A Wavelet Tour of Signal Processing*. 2nd ed., Academic Press, San Diego, Calif.
- Mallot, A. H. [2000]. *Computational Vision*, The MIT Press, Cambridge, Mass.
- Mamistvalov, A. [1998]. “ n -Dimensional Moment Invariants and Conceptual Mathematical Theory of Recognition [of] n -Dimensional Solids,” *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 20, no. 8, pp. 819 – 831.
- Maragos, P. [1987]. “Tutorial on Advances in Morphological Image Processing and Analysis.” *Optical Engineering*, vol. 26, no. 7, pp. 623 – 632.
- Marchand-Maillet, S., and Sharaiha, Y. M. [2000]. *Binary Digital Image Processing: A Discrete Approach*, Academic Press, New York.
- Maren, A. J., Harston, C. T., and Pap, R. M. [1990]. *Handbook of Neural Computing Applications*, Academic Press, New York.
- Marr, D. [1982]. *Vision*, Freeman, San Francisco.
- Marr, D., and Hildreth, E. [1980]. “Theory of Edge Detection.” *Proc. R. Soc. Lond.*, vol. B207, pp. 187 – 217.
- Martelli, A. [1972]. “Edge Detection Using Heuristic Search Methods.” *Comput. Graphics Image Proc.*, vol. 1, pp. 169 – 182.
- Martelli, A. [1976]. “An Application of Heuristic Search Methods to Edge and Contour Detection.” *Comm. ACM*, vol. 19, no. 2, pp. 73 – 83.
- Martin, M. B., and Bell, A. E. [2001]. “New image compression techniques using multiwavelets and multiwavelet packets,” *IEEE Trans. on Image Proc.*, vol. 10, no. 4, pp. 500 – 510.
- Mather, P. M. [1999]. *Computer Processing of Remotely Sensed Images: An Introduction*, John Wiley & Sons, New York.
- Max, J. [1960]. “Quantizing for Minimum Distortion.” *IRE Trans. Info. Theory*, vol. IT-6, pp. 7 – 12.
- McClelland, J. L., and Rumelhart, D. E. (eds.) [1986]. *Parallel Distributed Processing: Explorations in the Microstructures of Cognition*, vol. 2: *Psychological and Biological Models*, The MIT Press, Cambridge, Mass.
- McCulloch, W. S., and Pitts, W. H. [1943]. “A Logical Calculus of the Ideas Imminent in Nervous Activity.” *Bulletin of Mathematical Biophysics*, vol. 5, pp. 115 – 133.
- McFarlane, M. D. [1972]. “Digital Pictures Fifty Years Ago.” *Proc. IEEE*, vol. 60, no. 7, pp. 768 – 770.
- McGlamery, B. L. [1967]. “Restoration of Turbulence-Degraded Images.” *J. Opt. Soc. Am.*, vol. 57, no. 3, pp. 293 – 297.
- Meijering, E. H. W., Niessen, W. J., and Viergever, M. A. [1999]. “Retrospective Motion

- Correction in Digital Subtraction Angiography: A Review," *IEEE Trans. Medical Imaging*, vol. 18, no. 1, pp. 2–21. [chap 3]
- Memon, N., Neuhoff, D. L., and Shende, S. [2000]. "An Analysis of Some Common Scanning Techniques for Lossless Image Coding," *IEEE Trans. Image Processing*, vol. 9, no. 11, pp. 1837–1848.
- Mesarovic', V. Z. [2000]. "Iterative Linear Minimum Mean-Square-Error Image Restoration from Partially Known Blur," *J. Opt. Soc. Amer.-A. Optics, Image Science, and Vision*, vol. 17, no. 4, pp. 711–723.
- Meyer, Y. [1987]. "L'analyses par Ondelettes." *Pour la Science*.
- Meyer, Y. [1990]. *Ondelettes et opérateurs*, Hermann, Paris.
- Meyer, Y. (ed.) [1992a]. *Wavelets and Applications: Proceedings of the International Conference*, Marseille, France, Mason, Paris, and Springer-Verlag, Berlin.
- Meyer, Y. (translated by D. H. Salinger) [1992b]. *Wavelets and Operators*, Cambridge University Press, Cambridge, UK.
- Meyer, Y. (translated by R. D. Ryan) [1993]. *Wavelets: Algorithms and Applications*, Society for Industrial and Applied Mathematics, Philadelphia.
- Meyer, F. G., Averbuch, A. Z., and Strömberg, J.-O. [2000]. "Fast Adaptive Wavelet Pack-et Image Compression," *IEEE Trans. Image Processing*, vol. 9, no. 7, pp. 792–800.
- Meyer, F., and Beucher, S. [1990]. "Morphological Segmentation." *J. Visual Comm., and Image Representation*, vol. 1, no. 1, pp. 21–46.
- Meyer, H., Rosdolsky, H. G., and Huang, T. S. [1973]. "Optimum Run Length Codes." *IEEE Trans. Comm.*, vol. COM-22, no. 6, pp. 826–835.
- Minsky, M., and Papert, S. [1969]. *Perceptrons: An Introduction to Computational Geometry*, the MIT Press, Cambridge, Mass.
- Mirmehdi, M., and Petrou, M. [2000]. "Segmentation of Color Textures," *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 22, no. 2, pp. 142–159.
- Misiti, M., Misiti, Y., Oppenheim, G., and Poggi, J.-M. [1996]. *Wavelet Toolbox User's Guide*, The MathWorks, Inc., Natick, Mass.
- Mitiche, A. [1994]. *Computational Analysis of Visual Motion*, Perseus Publishing, New York.
- Mitra, S. K., and Sicuranza, G. L. (eds.) [2000]. *Nonlinear Image Processing*, Academic Press, New York.
- Murase, H., and Nayar, S. K. [1994]. "Illumination Planning for Object Recognition Using Parametric Eigen Spaces," *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 16, no. 12, pp. 1219–1227.
- Murino, V., Ottonello, C., and Pagnan, S. [1998]. "Noisy Texture Classification: A Higher-Order Statistical Approach," *Pattern Recog.*, vol. 31, no. 4, pp. 383–393.
- Nagao, M., and Matsuyama, T. [1980]. *A Structural Analysis of Complex Aerial Photographs*, Plenum Press, New York.
- Najman, L., and Schmitt, M. [1996]. "Geodesic Saliency of Watershed Contours and Hierarchi-

- cal Segmentation," *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 18, no. 12, pp. 1163 – 1173.
- Narendra, P. M., and Fitch, R. C. [1981]. "Real-Time Adaptive Contrast Enhancement." *IEEE Trans. Pattern Anal. Mach. Intell.*, vol. PAMI-3, no. 6, pp. 655 – 661.
- Netravali, A. N. [1977]. "On Quantizers for DPCM Coding of Picture Signals." *IEEE Trans. Info. Theory*, vol. IT-23, no. 3, pp. 360 – 370.
- Netravali, A. N., and Limb, J. O. [1980]. "Picture Coding: A Review." *Proc. IEEE*, vol. 68, no. 3, pp. 366 – 406.
- Nevatia, R. [1982]. *Machine Perception*, Prentice Hall, Upper Saddle River, N.J.
- Ngan, K. N., Meier, T., and Chai, D. [1999]. *Advanced Video Coding: Principles and Techniques*. Elsevier, Boston.
- Nilsson, N. J. [1965]. *Learning Machines: Foundations of Trainable Pattern-Classifying Systems*, McGraw-Hill, New York.
- Nilsson, N. J. [1971]. *Problem Solving Methods in Artificial Intelligence*, McGraw-Hill, New York.
- Nilsson, N. J. [1980]. *Principles of Artificial Intelligence*, Tioga, Palo Alto, Calif.
- Noble, B., and Daniel, J. W. [1988]. *Applied Linear Algebra*, 3rd ed., Prentice Hall, Upper Saddle River, N.J.
- Odegard, J. E., Gopinath, R. A., and Burrus, C. S. [1992]. "Optimal Wavelets for Signal Decomposition and the Existence of Scale-Limited Signals." *Proceedings of IEEE Int. Conf. On Signal Proc.*, ICASSP-92, San Francisco, CA, vol. IV, 597 – 600.
- Olson, C. F. [1999]. "Constrained Hough Transforms for Curve Detection," *Computer Vision and Image Understanding*, vol. 73, no. 3, pp. 329 – 345.
- O'Neil, J. B. [1971]. "Entropy Coding in Speech and Television Differential PCM Systems." *IEEE Trans. Info. Theory*, vol. IT-17, pp. 758 – 761.
- Oommen, R. J., and Loke, R. K. S. [1997]. "Pattern Recognition of Strings with Substitutions, Insertions, Deletions, and Generalized Transpositions," *Pattern Recog.*, vol. 30, no. 5, pp. 789 – 800.
- Oppenheim, A. V., and Schaffer, R. W. [1975]. *Digital Signal Processing*, Prentice Hall, Englewood Cliffs, N.J.
- Oppenheim, A. V., Schaffer, R. W., and Stockham, T. G., Jr. [1968]. "Nonlinear Filtering of Multiplied and Convolved Signals." *Proc. IEEE*, vol. 56, no. 8, pp. 1264 – 1291.
- Oyster, C. W. [1999]. *The Human Eye: Structure and Function*, Sinauer Associates, Sunderland, Mass.
- Paez, M. D., and Glisson, T. H. [1972]. "Minimum Mean-Square-Error Quantization in Speech PCM and DPCM Systems." *IEEE Trans. Comm.*, vol. COM-20, pp. 225 – 230.
- Pao, Y. H. [1989]. *Adaptive Pattern Recognition and Neural Networks*, Addison-Wesley, Reading, Mass.
- Papamarkos, N., and Atsalakis, A. [2000]. "Gray-Level Reduction Using Local Spatial Fea-

- tures," *Computer Vision and Image Understanding*, vol. 78, no. 3, pp. 336–350.
- Papoulis, A. [1991]. *Probability, Random Variables, and Stochastic Processes*, 3rd ed., McGraw-Hill, New York.
- Park, H., and Chin, R. T. [1995]. "Decomposition of Arbitrarily-Shaped Morphological Structuring," *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 17, no. 1, pp. 2–15.
- Parker, J. R. [1991]. "Gray Level Thresholding in Badly Illuminated Images." *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 13, no. 8, pp. 813–819.
- Pattern Recognition* [2000]. Special issue on Mathematical Morphology and Nonlinear Image Processing, vol. 33, no. 6, pp. 875–1117.
- Pavlidis, T. [1977]. *Structural Pattern Recognition*, Springer-Verlag, New York.
- Pavlidis, T. [1982]. *Algorithms for Graphics and Image Processing*, Computer Science Press, Rockville, Md.
- Pavlidis, T., and Liow, Y. T. [1990]. "Integrating Region Growing and Edge Detection." *IEEE Trans. Pattern Anal. Mach. Intell.*, vol. 12, no. 3, pp. 225–233.
- Peebles, P. Z. [1993]. *Probability, Random Variables, and Random Signal Principles*, 3rd ed., McGraw-Hill, New York.
- Pennebaker, W. B., and Mitchell, J. L. [1992]. *JPEG: Still Image Data Compression Standard*. Van Nostrand Reinhold, New York.
- Pennebaker, W. B., Mitchell, J. L., Langdon, G. G., Jr., and Arps, R. B. [1988]. "An Overview of the Basic Principles of the Q-coder Adaptive Binary Arithmetic Coder." *IBM J. Res. Dev.*, vol. 32, no. 6, pp. 717–726.
- Perez, A., and Gonzalez, R. C. [1987]. "An Iterative Thresholding Algorithm for Image Segmentation." *IEEE Trans. Pattern Anal. Machine Intell.*, vol. PAMI-9, no. 6, pp. 742–751.
- Perona, P., and Malik, J. [1990]. "Scale-Space and Edge Detection Using Anisotropic Diffusion." *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 12, no. 7, pp. 629–639.
- Persoon, E., and Fu, K. S. [1977]. "Shape Discrimination Using Fourier Descriptors." *IEEE Trans. Systems Man Cyb.*, vol. SMC-7, no. 2, pp. 170–179.
- Petrou, M., and Bosdogianni, P. [1999]. *Image Processing: The Fundamentals*, John Wiley & Sons, UK.
- Petrou, M., and Kittler, J. [1991]. "Optimal Edge Detector for Ramp Edges." *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 13, no. 5, pp. 483–491.
- Piech, M. A. [1990]. "Decomposing the Laplacian." *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 12, no. 8, pp. 830–831.
- Pitas, I., and Venetsanopoulos, A. N. [1990]. *Nonlinear Digital Filters: Principles and Applications*, Kluwer Academic Publishers, Boston, Mass.
- Plataniotis, K. N., and Venetsanopoulos, A. N. [2000]. *Color Image Processing and Applications*, Springer-Verlag, New York.
- Pokorny, C. K., and Gerald, C. F. [1989]. *Computer Graphics: The Principles Behind the Art*

- and Science, Franklin, Beedle & Associates, Irvine, Calif.
- Poynton, C. A. [1996]. *A Technical Introduction to Digital Video*, John Wiley & Sons, New York.
- Prasad, L., and Iyengar, S. S. [1997]. *Wavelet Analysis with Applications to Image Processing*, CRC Press, Boca Raton, Fla.
- Pratt, W. K. [1991]. *Digital Image Processing*, 2nd ed., John Wiley & Sons, New York.
- Pratt, W. K. [2001]. *Digital Image Processing*, 3rd ed., John Wiley & Sons, New York.
- Preparata, F. P., and Shamos, M. I. [1985]. *Computational Geometry: An Introduction*, Springer-Verlag, New York.
- Preston, K. [1983]. "Cellular Logic Computers for Pattern Recognition." *Computer*, vol. 16, no. 1, pp. 36–47.
- Prewitt, J. M. S. [1970]. "Object Enhancement and Extraction." in *Picture Processing and Psychopictorics*, Lipkin, B. S., and Rosenfeld, A. (eds.), Academic Press, New York.
- Principe, J. C., Euliano, N. R., and Lefebvre, W. C. [1999]. *Neural and Adaptive Systems: Fundamentals through Simulations*, John Wiley & Sons, New York.
- Pritchard, D. H. [1977]. "U. S. Color Television Fundamentals—A Review." *IEEE Trans. Consumer Electronics*, vol. CE-23, no. 4, pp. 467–478.
- Proc. IEEE* [1967]. Special issue on redundancy reduction, vol. 55, no. 3.
- Proc. IEEE* [1972]. Special issue on digital picture processing, vol. 60, no. 7.
- Proc. IEEE* [1980]. Special issue on the encoding of graphics, vol. 68, no. 7.
- Proc. IEEE* [1985]. Special issue on visual communication systems, vol. 73, no. 2.
- Qian, R. J., and Huang, T. S. [1996]. "Optimal Edge Detection in Two-Dimensional Images," *IEEE Trans. Image Processing*, vol. 5, no. 7, pp. 1215–1220.
- Rabbani, M., and Jones, P. W. [1991]. *Digital Image Compression Techniques*, SPIE Press, Bellingham, Wash.
- Rajala, S. A., Riddle, A. N., and Snyder, W. E. [1983]. "Application of One-Dimensional Fourier Transform for Tracking Moving Objects in Noisy environments." *Comp., Vision, Image Proc.*, vol. 21, pp. 280–293.
- Reddy, B. S., and Chatterji, B. N. [1996]. "An FFT-Based Technique for Translation, Rotation, and Scale Invariant Image Registration," *IEEE Trans. Image Processing*, vol. 5, no. 8, pp. 1266–1271.
- Regan, D. D. [2000]. *Human Perception of Objects: Early Visual Processing of Spatial Form Defined by Luminance, Color, Texture, Motion, and Binocular Disparity*, Sinauer Associates, Sunderland, Mass.
- Ritter, G. X., and Wilson, J. N. [2001]. *Handbook of Computer Vision Algorithms in Image Algebra*, CRC Press, Boca Raton, Fla.
- Roberts, L. G. [1965]. "Machine Perception of Three-Dimensional Solids." In *Optical and Electro-Optical Information Processing*, Tippet, J. T. (ed.), MIT Press, Cambridge, Mass.
- Robertson, A. R. [1977]. "The CIE 1976 Color Difference Formulae," *Color Res. Appl.*,

- vol. 2, pp. 7 – 11.
- Robinson, G. S. [1976]. "Detection and Coding of Edges Using Directional Masks." University of Southern California, Image Processing Institute, Report no. 660.
- Robinson, J. A. [1965]. "A Machine-Oriented Logic Based on the Resolution Principle." *J. ACM*, vol. 12, no. 1, pp. 23 – 41.
- Rock, I. [1984]. *Perception*, W. H. Freeman, New York.
- Roose, J. A., Pratt, W. K., and Robinson, G. S. [1977]. "Interframe Cosine Transform Image Coding." *IEEE Trans. Comm.*, vol. COM-25, pp. 1329 – 1339.
- Rosenblatt, F. [1959]. "Two Theorems of Statistical Separability in the Perceptron." In *Mechanisation of Thought Processes: Proc. of Symposium No. 10*, held at the National Physical Laboratory, November 1958, H. M. Stationery Office, London, vol. 1, pp. 421 – 456.
- Rosenblatt, F. [1962]. *Principles of Neurodynamics: Perceptrons and the Theory of Brain Mechanisms*, Spartan, Washington, D. C.
- Rosenfeld, A. (ed.) [1984]. *Multiresolution Image Processing and Analysis*, Springer-Verlag, New York.
- Rosenfeld, A. [1999]. "Image Analysis and Computer Vision: 1998." *Computer Vision and Image Understanding*, vol. 74, no. 1, pp. 36 – 95.
- Rosenfeld, A. [2000]. "Image Analysis and Computer Vision: 1999." *Computer Vision and Image Understanding*, vol. 78, no. 2, pp. 222 – 302.
- Rosenfeld, A., and Kak, A. C. [1982]. *Digital Picture Processing*, vols. 1 and 2, 2nd ed., Academic Press, New York.
- Rosin, P. L. [1997]. "Techniques for Assessing Polygonal Approximations of Curves," *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 19, no. 6, pp. 659 – 666.
- Rudnick, P. [1966]. "Note on the Calculation of Fourier Series." *Math. Comput.*, vol. 20, pp. 429 – 430.
- Rumelhart, D. E., Hinton, G. E., and Williams, R. J. [1986]. "Learning Internal Representations by Error Propagation." In *Parallel Distributed Processing: Explorations in the Microstructures of Cognition*, vol. 1: *Foundations*, Rumelhart, D. E., et al. (eds.), MIT Press, Cambridge, MA., pp. 318 – 362.
- Rumelhart, D. E., and McClelland, J. L. (eds.) [1986]. *Parallel Distributed Processing: Explorations in the Microstructures of Cognition*, vol. 1: *Foundations*, MIT Press, Cambridge, Mass.
- Runge, C. [1903]. *Zeit. für Math., and Physik*, vol. 48, pp. 433.
- Runge, C. [1905]. *Zeit. für Math., and Physik*, vol. 53, pp. 117.
- Runge, C., and König, H. [1924]. "Die Grundlehren der Mathematischen Wissenschaften." *Vorlesungen über Numerisches Rechnen*, vol. 11, Julius Springer, Berlin.
- Russ, J. C. [1999]. *The Image Processing Handbook*, 3rd ed., CRC Press, Boca Raton, Fla.
- Sahni, S., and Jenq, J.-F. [1992]. "Serial and Parallel Algorithms for the Medial Axis Transform," *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 14, no. 12, pp. 1218 – 1224.

- Sahoo, P. K., Soltani, S., Wong, A. K. C., and Chan, Y. C. [1988]. "A Survey of Thresholding Techniques." *Comput. Vision, Graphics, Image Proc.*, vol. 4, pp. 233 – 260.
- Saito, N., and Cunningham, M. A. [1990]. "Generalized E-Filter and its Application to Edge Detection." *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 12, no. 8, pp. 814 – 817.
- Sakrison, D. J., and Algazi, V. R. [1971]. "Comparison of Line-by-Line and Two-Dimensional Encoding of Random Images." *IEEE Trans. Info. Theory*, vol. IT-17, no. 4, pp. 386 – 398.
- Salari, E., and Siy, P. [1984]. "The Ridge-Seeking Method for Obtaining the Skeleton of Digital Images." *IEEE Trans. Syst. Man Cyb.*, vol. SMC-14, no. 3, pp. 524 – 528.
- Salinas, R. A., Abidi, M. A., and Gonzalez, R. C. [1996]. "Data Fusion: Color Edge Detection and Surface Reconstruction Through Regularization," *IEEE Trans. Industrial Electronics*, vol. 43, no. 3, pp. 355 – 363, 1996.
- Sato, Y. [1992]. "Piecewise Linear Approximation of Plane Curves by Perimeter Optimization," *Pattern Recog.*, vol. 25, no. 12, pp. 1535 – 1543.
- Sauvola, J., and Pietikainen, M. [2000]. "Adaptive Document Image Binarization," *Pattern Recog.*, vol. 33, no. 2, pp. 225 – 236.
- Schalkoff, R. J. [1989]. *Digital Image Processing and Computer Vision*, John Wiley & Sons, New York.
- Schonfeld, D., and Goutsias, J. [1991]. "Optimal Morphological Pattern Restoration from Noisy Binary Images." *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 13, no. 1, pp. 14 – 29.
- Schowengerdt, R. A. [1983]. *Techniques for Image Processing and Classification in Remote Sensing*, Academic Press, New York.
- Schreiber, W. F. [1956]. "The Measurement of Third Order Probability Distributions of Television Signals." *IRE Trans. Info. Theory*, vol. IT-2, pp. 94 – 105.
- Schreiber, W. F. [1967]. "Picture Coding." *Proc. IEEE* (Special issue on Redundancy Reduction), vol. 55, pp. 320 – 330.
- Schreiber, W. F., and Knapp, C. F. [1958]. "TV Bandwidth Reduction by Digital Coding." *Proc. IRE National Convention*, pt. 4, pp. 88 – 99.
- Schwartz, J. W., and Barker, R. C. [1966]. "Bit-Plane Encoding: A Technique for Source Encoding." *IEEE Trans. Aerosp. Elec. Systems*, vol. AES-2, no. 4, pp. 385 – 392.
- Serra, J. [1982]. *Image Analysis and Mathematical Morphology*, Academic Press, New York.
- Serra, J. (ed.) [1988]. *Image Analysis and Mathematical Morphology*, vol. 2, Academic Press, New York.
- Sezan, M. I., Rabbani, M., and Jones, P. W. [1989]. "Progressive Transmission of Images Using a Prediction/Residual Encoding Approach." *Opt. Eng.*, vol. 28, no. 5, pp. 556 – 564.
- Shack, R. V. [1964]. "The Influence of Image Motion and Shutter Operation on the Photographic Transfer Function." *Appl. Opt.*, vol. 3, pp. 1171 – 1181.
- Shafarenko, L., Petrou, M., and Kittler, J. [1998]. "Histogram-Based Segmentation in a Perceptually Uniform Color Space." *IEEE Trans. Image Processing*, vol. 7, no. 9, pp. 1354 –

- 1358.
- Shaked, D., and Bruckstein, A. M. [1998]. "Pruning Medial Axes," *Computer Vision and Image Understanding*, vol. 69, no. 2, pp. 156 – 169.
- Shannon, C. E. [1948]. "A Mathematical Theory of Communication." *The Bell Sys. Tech. J.*, vol. XXVII, no. 3, pp. 379 – 423.
- Shapiro, L. G., and Stockman, G. C. [2001]. *Computer Vision*, Prentice Hall, Upper Saddle River, N.J.
- Shapiro, V. A. [1996]. "On the Hough Transform of Multi-Level Pictures," *Pattern Recog.*, vol. 29, no. 4, pp. 589 – 602.
- Shariat, H., and Price, K. E. [1990]. "Motion Estimation with More Than Two Frames." *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 12, no. 5, pp. 417 – 434.
- Sheppard, J. J., Jr., Stratton, R. H., and Gazley, C., Jr. [1969]. "Pseudocolor as a Means of Image Enhancement." *Am. J. Optom. Arch. Am. Acad. Optom.*, vol. 46, pp. 735 – 754.
- Shi, F. Y., and Wong, W.-T. [1994]. "Fully Parallel Thinning with Tolerance to Boundary Noise," *Pattern Recog.*, vol. 27, no. 12, pp. 1677 – 1695.
- Shih, F. Y. C., and Mitchell, O. R. [1989]. "Threshold Decomposition of Gray-Scale Morphology into Binary Morphology." *IEEE Trans. Pattern Anal. Machine Intell.*, vol. 11, no. 1, pp. 31 – 42.
- Sid-Ahmed, M. A. [1995]. *Image Processing: Theory, Algorithms, and Architectures*, McGraw-Hill, New York.
- Sikora, T. [1997]. "MPEG Digital Video-Coding Standards." *IEEE Signal Processing*, vol. 14, no. 5, pp. 82 – 99.
- Simon, J. C. [1986]. *Patterns and Operators: The Foundations of Data Representations*, McGraw-Hill, New York.
- Sklansky, J., Chazin, R. L., and Hansen, B. J. [1972]. "Minimum-Perimeter Polygons of Digitized Silhouettes." *IEEE Trans. Comput.*, vol. C-21, no. 3, pp. 260 – 268.
- Smirnov, A. [1999]. *Processing of Multidimensional Signals*, Springer-Verlag, New York.
- Smith, A. R. [1978]. "Color Gamut Transform Pairs." *Proc. SIGGRAPH'78*, published as *Computer Graphics*, vol. 12, no. 3, pp. 12 – 19.
- Smith, M. J. T., and Barnwell, T. P. III [1984]. "A Procedure for Building Exact Reconstruction Filter Banks for Subband Coders." *Proc. IEEE Int. Conf. Acoust., Speech, and Signal Proc.*, San Diego, Calif.
- Smith, M. J. T., and Barnwell, T. P. III [1986]. "Exact Reconstruction Techniques for Tree-Structured Subband Coders." *IEEE Trans. On Acoust., Speech, and Signal Proc.*, vol. 34, no. 3, pp. 434 – 441.
- Sobel, I. E. [1970]. "Camera Models and Machine Perception," Ph.D. dissertation, Stanford University, Palo Alto, Calif.
- Sonka, M., Hlavac, V., and Boyle, R. [1999]. *Image Processing, Analysis, and Machine Vi-*