Bibliography

[1] C.H. Anderson, P.J. Burt, and G.S. van der Wal. Change detection and tracking using pyramid transform techniques. *Proceedings of the DARPA Image Understanding Workshop*, pages 72–78, 1985.

[2] A. Basu, A. Sullivan, and K.J. Wiebe. Variable resolution teleconferencing. In *IEEE Systems, Man, and Cybernetics Conference*, pages 170–175, 1993.

[3] A. Basu and K.J. Wiebe. Videoconferencing using spatially varying sensing with multiple and moving fovea. In *Proceedings of the IEEE International Conference on Pattern Recognition*, volume 3, pages 30–34, 1994.

[4] B. Bederson, R.S. Wallace, and E.L. Schwartz. A miniaturized active vision system. In *11th IAPR International Conference on Pattern Recognition*, pages 58–62, The Hague, Netherlands, 1992. Specialty Conference on Pattern Recognition Hardware Architecture.

[5] P.J. Burt. Smart sensing within a pyramid vision machine. *Proceedings of the IEEE*, 76(8):1006–1015, 1988.

[6] P.J. Burt and Theodore Adelson. A laplacian pyramid for data compression. *IEEE Trans. Commun.*, C-8:1230–1245, 1981.

[7] B. Cabral, N. Cam, and J. Foran. Accelerated volume rendering and tomographic reconstruction using texture mapping hardware. *1994 Symp. on Volume Visualization*, pages 91–97, 1994.

[8] E.C. Chang and C. Yap. A wavelet approach to foveating images. *13th ACM Symposium on Computational Geometry*, pages 397–399, 1997.

[9] Ingrid Daubechies. *Ten Lectures on Wavelets*. SIAM, 1992.

[10] A. Eleftheriadis and A. Jacquin. Automatic face location detection and tracking for model-assisted coding of video teleconferencing sequences at low bitrates. *Signal Processing: Image Communication*, 7(3):231–248, 1995.

[11] R.A. Fisher and H.M. Tong. A full-field-of-view dome visual display for tactical combat training. In *Proc. Image Conference IV*, Phoenix, Arizona, June, 1987.

[12] M. Frazier and B. Jawerth. Applications of the ϕ and wavelet transforms to the theory of function spaces. In *Wavelets and Their Applications*, pages 377–418. Jones and Bartlett, 1992.

[13] B. Girod. Eye movements and coding of video sequences. *SPIE Visual Communications and Image Processing*, 1001:398–405, 1988.

[14] G.G. Holmes. The cortical localization of vision. *Br. Med. J*, ii:193–199, 1919.

[15] Nuggehally S. Jayant and Peter Noll. *Digital coding of waveforms: principles and applications to speech and video*. Englewood Cliffs, New Jersey, 1984.

[16] Philip Kortum and Wilson S. Geisler. Implementation of a foveated image coding system for image bandwidth reduction. In *Human Vision and Electronic Imaging, SPIE Proceedings Vol. 2657*, pages 350–360, 1996.

[17] M. Levoy and R. Whitaker. Gaze-directed volume rendering. *Computer Graphics*, 24(2):217–223, March 1990.

[18] Richard J. Lipton and Andrew Tomkins. Online interval scheduling. *Proceedings of the 5th annual ACM-SIAM Symposium on Discrete Algorithms*, pages 304–311, 1994.

[19] S. Mallat. A theory for multiresolution signal decomposition: the wavelet representation. *IEEE Trans. Pattern Anal. Machine Intell.*, 11:674–692, 1989.

[20] S. Mallat, Z. Zhang, and G. Papanicolaou. Adaptive covariance estimation of locally stationary processes. *Annals of Stat.*, 1997 (To appear).

[21] Stephane Mallat. *A Wavelet Tour of Signal Processing.* Academic Press, 1998.

[22] M. Manasse, L.A. McGeoch, and D. Sleator. Competitive algorithms for server problems. In *Proc. 20th Annual ACM Symposium on Theory of Computing*, pages 322–333, 1988.

[23] David Marr. *Vision: a computational Investigation into the Human Representation and Processing of Visual Information.* W.H. Freeman, 1982.

[24] J. Max. Quantizing for minimum distortion. *IRE Transactions on Information Theory*, IT-6(1):7–12, 1960.

[25] B.H. McCormick, T.A. DeFanti, and M.D. Brown. Visualization in scientific computing. *ACM Computer Graphics (special issue)*, 21, 1987.

[26] M. Minkowski. Experimentelle untersuchungen uber die beziehungen der grosshirninde. *Arb. Hirnanat. Inst. Zurich*, 7:259, 1913.

[27] Alireza Moini. Vision chips or seeing silicon. www page at url:⟨http://www.eleceng.adelaide.edu.au/groups/gaas/bugeye/visionchips/⟩, Last update April 1997.

[28] Alireza Moini. Vision chips or seeing silicon. Technical Report, Center for High Performance Integrated Technologies and Systems, The University of Adelaide, March 1997.

[29] F. Panerai, C. Capurro, and G. Sandini. Space variant vision for an active camera mount. In *Proc. SPIE AeroSense95*, 1995.

[30] S. Poliak. The main afferent fibre systems of the cerebral cortex in primates. *Univ. Calif. Publ. Anat.*, 2:107–207, 1932.

[31] T.H. Reeves and J.A. Robinson. Adaptive foveation of mpeg video. *Proceedings, 4th ACM International Multimedia Conference*, 1996.

[32] E.L. Schwartz. Spatial mapping in primate sensory projection: Analytic structure and relevance to perception. *Biological Cybernetics*, 25:181–194, 1977.

[33] Eric L. Schwartz. Topographic mapping in primate visual cortex: History, anatomy, and computation. In D. H. Kelly, editor, *Visual Science and Engineering: Models and Applications*, pages 293–360. Marcel Dekker, 1994.

[34] C.E. Shannon. Communications in the presence of noise. In *Proceedings of the IRE*, volume 37, pages 10–21, January 1949.

[35] J.M. Shapiro. Embedded image coding using zerotrees of wavelet coefficients. *IEEE Transactions on Signal Processing*, 41(12):3445–3462, December 1993.

[36] E.P. Simoncelli and R.W. Buccigrossi. Embedded wavelet image compression based on a joint probability model. In *4th IEEE International Conference on Image Processing*, Santa Barbara, 1997.

[37] D. Sleator and R. Tarjan. Amortized efficiency of list update and paging rules. *Communications of the ACM*, 28(2):202–208, 1985.

[38] K.R. Sloan and S.L. Tanimoto. Progressive refinement of raster images. *IEEE Trans. Comput.*, C-28(11):871–874, 1979.

[39] Wavelet technology and information access. www page at url:⟨http://www.summus.com/⟩, Summus, Ltd, Last update November 21,1997.

[40] A. Tabernero, J. Portilla, and R. Navarro. Duality between the local spectrum of a signal and its inverse fourier transform, the local signal. Technical Report 53, Instituto de Optica (CSIC), Spain, 1997.

[41] S.A. Talbot and W.H. Marshall. Physiological studies on neural mechanisms of visual localization and discrimination. *Am. J. Ophthalmol*, 24:1255–1263, 1941.

[42] H.M. Tong and R.A. Fisher. Progress report on an eye-slaved area-of-interest visual display. In *Proc. Image Conference III*, Phoenix, Arizona, May, 1984.

[43] K.H. Tzou. Embedded max quantization. In *Proc. IEEE Int. Conf. Acoust. Speech. Sig. Proc.*, pages 505–508. ICASSP'86, 1986.

[44] Kou-Hu Tzou. Progressive image transmission: a review and comparison of techniques. *Optical Engineering*, 26(7):581–589, 1987.

[45] G.K. Wallace. The jpeg still picture compression standard. *Communications of the ACM*, 34(4):30–44, April 1991.

[46] R.S. Wallace, P.-W. Ong, B. Bederson, and E.L. Schwartz. Space variant image processing. *Intl. J. of Computer Vision*, 13(1):71–90, 1994.

[47] R.C. Wood. On optimum quantization. *IEEE Transactions on Information Theory*, IT-15(2):248–252, 1969.

[48] Y. Yeshurun and E.L. Schwartz. Shape description with a space-variant sensor: Algorithms for scan-path, fusion and convergence over multiple scans. *IEEE Trans. Pattern Anal. Machine Intell.*, PAPMI-11:1217–1222, 1989.