

BIBLIOGRAPHY

- Abel, Sharon and Hay, Valerie H. (1996). "Sound localization: The interaction of aging, hearing loss, and hearing protection." *Scandinavian Audiology*, **25**(1).
- Altes, R.A. (1982). "Radar/Sonar signal design for bounded Doppler shifts." *IEEE Transactions on Aerospace and Electronic Systems* **18**(4): July 1982.
- Avendano et al. (1999). "Modeling the Contralateral HRTF." *Proceedings of the 16th Audio Engineering Society (AES) International Conference on Spatial Sound Reproduction*, Rovaniemi, Finland.
- Baskurt, Atilla et al. (1995). "On a 3D medical image coding method using a separable 3D wavelet transform." *Medical Imaging and Image Display*, San Diego, California: *Proceedings of the International Society for Optical Engineering (SPIE) vol. 2431*.
- Begault, Durand R. (1994). *3-D Sound for Virtual Reality and Multimedia*. Academic Press, Inc. Cambridge, Massachusetts.
- Begault, Durand R. and Wenzel, Elizabeth M. (1993). "Headphone localization of speech." *Human Factors*, **35**(2).

- Bernstein, Leslie R. and Trahiotis, Constantine. (1995). "Binaural interference effects measured with masking-level difference and with ITD- and IID-discrimination paradigms." *Journal of the Acoustical Society of America*, **98**(1): July 1995.
- Bernstein, Leslie R. and Trahiotis, Constantine. (1996). "Binaural beats at high frequencies: Listeners' use of envelope-based interaural temporal and intensive disparities." *Journal of the Acoustical Society of America*, **99**(3): March 1996.
- Blauert, Jens. (1983). *Spatial Hearing*. The MIT Press, Cambridge, Massachusetts.
- Blommer, A. and Wakefield, G. (1995). "A comparison of head related transfer function interpolation methods." *1995 IEEE ASSP Workshop on Applications of Signal Processing to Audio and Acoustics*: IEEE catalog number: 95TH8144.
- Blommer, Michael Alan. (1996). *Pole-zero Modeling and Principal Component Analysis of Head-Related Transfer Functions*. Ph.D. Dissertation for the University of Michigan, Dept. of Electrical Engineering and Computer Science, Systems division, Ann Arbor, Michigan.
- Braun, V. (1997). "On higher order autocorrelation properties of Golay complementary sequences." *Proceedings of IEEE International Symposium in Information Theory*, Ulm, Germany: IEEE Cat. No. 97CH36074.
- Braun, V. (1998a). "Dipulse-response measurement of a magnetic recording channel using Golay complementary sequences." *IEEE Transactions on Magnetics* **34**(1) pt. 2: January 1998.
- Braun, V. (1998b). "Golay sequences for identification of linear systems with weak nonlinear distortion." *IEEE Proceedings on Science, Measurement, and Technology* **145**(3): May 1998.

- Budisin, S.Z. (1987). "Supercomplementary Sets of Sequences." *Electronics Letters*, **23**(10): May 7, 1987.
- Budisin, S.Z. (1990a). "Complementary Huffman Sequences." *Electronics Letters*, **26**(8): April 12 1990.
- Budisin, S.Z. (1990b). "New Complementary Pairs of Sequences." *Electronics Letters*, **26**(13): June 21, 1990.
- Budisin, S.Z. (1990c). "New Multilevel Complementary Pairs of Sequences." *Electronics Letters*, **26**(22): October 25, 1990.
- Budisin, S.Z. (1991). "Efficient Pulse Compressor for Golay Complementary Sequences." *Electronics Letters*, **27**(3): January 31, 1991.
- Budisin, S.Z. (1992). "Golay complementary sequences are superior to PN sequences." *IEEE International Conference on Systems Engineering*, New York, NY: IEEE Cat. No. 92CH3179-9.
- Buell, Thomas N. et al. (1994). "Lateralization of bands of noise as a function of combinations of interaural intensive differences, interaural temporal differences, and bandwidth." *Journal of the Acoustical Society of America*, **95**(3): March 1994.
- Burns, Greg. (1999). "Inside Chicago's Markets." *The Chicago Tribune*, Chicago, Illinois: April 13, 1999.
- Carlile, S. and Pralong, D. (1994). "The location-dependent nature of perceptually salient features of the human head-related transfer functions." *Journal of the Acoustical Society of America*, **95**(6): June 1994.

- Chandler, David W. and Grantham, Wesley. (1992). "Minimum audible movement angle in the horizontal plane as a function of stimulus frequency and bandwidth, source azimuth, and velocity." *Journal of the Acoustical Society of America*, **91**(3): March 1992.
- Chang, Cheng-Ta and Chen, Oscar T.-C. (1998). "An Efficient Sound Using Head and Pinna Models." *IEEE Asia-Pacific Conference on Circuits and Systems*, Chiangmai, Thailand.
- Chapin, William L. (1999). Personal Communication.
- Chen, Jiashu et al. (1991). "Representation of external ear transfer function via a beamforming model." *Proceedings of the 1991 International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, New York: IEEE catalog number 91CH2977-7.
- Chen, Jiashu et al. (1992). "External ear transfer function modeling: A beamforming approach." *Journal of the Acoustical Society of America*, **92**(4) Pt. 1: October 1992.
- Chen, Jiashu et al. (1993). "Synthesis of 3D virtual auditory space via a spatial feature extraction and regularization model." *Proceedings of the IEEE Virtual Reality Annual International Symposium*, Seattle, Washington: IEEE catalog number 93CH3336-5.
- Chen, Jiashu et al. (1995). "A spatial feature extraction and regularization model of the head-related transfer function." *Journal of the Acoustical Society of America*, **97**(1): January 1995.

- Cheng, Corey (chair). (2000a). "Panel Discussion: The Aesthetic and the Exact: A Collaborative Discussion on Spatialization Between Young Composers and Young Scientists in Electro-Acoustic Music." *Society for Electro-Acoustic Music in the United States 1999 National Conference*, Denton Texas.
- Cheng, Corey. (2000b). "Fishbowl," electro-acoustic music for tape. *Society for Electro-Acoustic Music in the United States 1999 National Conference*, Denton Texas.
- Cheng, Corey. (2001). "Fishbowl," binaural electro-acoustic music for headphones and tape. *Computer Music Journal Compact Disc* **19**(4): Winter 2001.
- Cheng, Corey I. and Wakefield, Gregory H. (1999a). "Introduction to Head-Related Transfer Functions (HRTF's): Representations of HRTF's in Time, Frequency, and Space (invited tutorial)." *Proceedings of the Audio Engineering Society (AES) 107th Convention* (Preprint 5026), New York.
- Cheng, Corey I. and Wakefield, Gregory H. (1999b). "Spatial Frequency Response Surfaces: An Alternative Visualization Tool for Head-Related Transfer Functions (HRTF's)." *Proceedings of the 1999 International Conference on Acoustics, Speech, and Signal Processing (ICASSP99)*, Phoenix, Arizona.
- Cheng, Corey I. and Wakefield, Gregory H. (1999c). "Spatial Frequency Response Surfaces (SFRS's): An Alternative Visualization and Interpolation Technique for Head-Related Transfer Functions (HRTF's)." *Proceedings of the 16th Audio Engineering Society (AES) International Conference on Spatial Sound Reproduction*, Rovaniemi, Finland.
- Cheng, Corey I. and Wakefield, Gregory H. (2000). "A Tool for Volumetric Visualization and Sonification of Head-Related Transfer Functions (HRTF's)."

Proceedings of the International Conference on Auditory Display, Atlanta, Georgia.

- Cheng, Corey I. and Wakefield, Gregory H. (2001a). "Error analysis of HRTF's measured with complementary (golay) codes." *Abstracts of the Journal of the Acoustical Society of America*. Chicago: June 2001.
- Cheng, Corey I. and Wakefield, Gregory H. (2001b). "Moving Sound Source Synthesis for Binaural Electro-acoustic Music Using Interpolated Head-Related Transfer Functions (HRTF's)" *Computer Music Journal*, **25**(4): Winter 2001.
- Chu, W.T. (1984). "Architectural acoustic measurements using periodic pseudorandom sequences and FFT." *Journal of the Acoustical Society of America* **76**(2): August 1984.
- Cooper, D.H. and Bauck, J.L. (1989). "Prospects for Transaural Recording." *Journal of the Audio Engineering Society*, **37**(1/2): Jan/Feb 1989.
- Dasarathy, Belur V. (1991). *Nearest Neighbor (NN) Norms: NN Pattern Classification Techniques*. IEEE Computer Society Press, Los Alamitos, California.
- Davis, James A. and Jedwab, Jonathan. (1999). "Peak-to-Mean Power Control in OFDM, Golay Complementary Sequences, and Reed-Muller Codes." *IEEE Transactions on Information Theory* **45**(7): November 1999.
- Dima, Anca et al. (1999). "Semi-Automatic Quality Determination of #D Confocal Microscope Scans of Neuronal Cells Denoised by 3D-Wavelet Shrinkage." *Wavelet Applications VI*, Orlando, FL: *Proceedings of the International Society for Optical Engineering (SPIE)*, vol. 2491.

- Dokovic, D.Z. (1998). "Note on periodic complementary sets of binary sequences." *Designs, Codes, and Cryptography* **13**(3): March 1998.
- Duda, Richard O. and Martens, William M. (1998). "Range dependence of the response of a spherical head model." *Journal of the Acoustical Society of America*, **104**(5): November 1998.
- Duda, Richard O. et al. (1999). "An Adaptable Ellipsoidal Head Model for the Interaural Time Difference." *Proceedings of the 1999 International Conference on Acoustics, Speech, and Signal Processing (ICASSP99)*, Phoenix, Arizona: 1999.
- Endsley, Mica R. and Rosiles, Armida S. (1995). "Auditory localization for spatial orientation." *Journal of Vestibular Research*, **5**(6): 1995.
- Fay, Richard R. and Popper, Arthur N. (1994). *Comparative Hearing: Mammals*. Springer-Verlag, New York.
- Ferguson, Bradley S. et al. (1998). "A Bottle Model for Head-Related Transfer Functions." *Proceedings of the 1998 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP98)*: Seattle, WA.
- Fisher, N.I. (1993). *Statistical Analysis of Circular Data*. Cambridge University Press, New York.
- Fisher, N.I. et al. (1987). *Statistical Analysis of Spherical Data*. Cambridge University Press, New York.
- Foster, Scott. (1986). "Impulse response measurement using Golay Codes." *International Conference on Acoustics, Speech, and Signal Processing (ICASSP86)*, Tokyo, Japan.

- Foxwell, J.H. (1970). "The diffraction of sound round a rigid sphere from a point source on the sphere." *Journal of Sound and Vibration* **11**(1): 1970.
- Giguère, Christian and Abel, Sharon M. (1993). "Sound localization: Effects of reverberation time, speaker array, stimulus frequency, and stimulus rise/decay." *Journal of the Acoustical Society of America*, **94**(2) Pt. 1: August 1993.
- Gilkey, Robert H. (1995). "Some considerations for the design of auditory displays." *1995 IEEE ASSP Workshop on Applications of Signal Processing to Audio and Acoustics*: IEEE catalog number: 95TH8144.
- Gilkey, Robert H. and Anderson, Timothy R. (1995). "The accuracy of absolute localization judgments for speech stimuli." *Journal of Vestibular Research*, **5**(6): 1995.
- Gilkey, Robert H. et al. (1995). "A pointing technique for rapidly collecting localization responses in auditory research." *Behavior Research Methods, Instruments, & Computers*: **27**(1): 1995.
- Golay, Marcel J.E. (1961). "Complementary Series." *IRE Transactions on Information Theory* **7**: 1961.
- Green, David M. and Swets, John A. (1974). *Signal Detection Theory and Psychophysics*. Robert E. Krieger Publishing Company, New York: 1974.
- Griesinger, David.(1999). "Objective Measures of Spatiousness and Envelopment." *Proceedings of the 16th Audio Engineering Society (AES) International Conference on Spatial Sound Reproduction*, Rovaniemi, Finland.

- Hartmann, William Morris and Rakerd, Brad. (1989). "On the minimum audible angle – A decision theory approach." *Journal of the Acoustical Society of America*, **85**(5): May 1989.
- Hartung, Klaus et al. (1999). "Comparison of Different Methods for the Interpolation of Head-Related Transfer Functions." *Proceedings of the 16th Audio Engineering Society (AES) International Conference on Spatial Sound Reproduction*, Rovaniemi, Finland.
- Hawkins, Harold L. et al, eds. (1996). *Auditory Computation*. Springer-Verlag, Inc., New York.
- Heller, Laurie M. and Trahiotis, Constantine. (1996). "Extents of laterality and binaural interference effects." *Journal of the Acoustical Society of America*, **99**(6): June 1996.
- Hiranaka, Yukio and Yamasake, Hiro. (1983). "Envelope representations of pinna impulse responses relating to three-dimensional localization of sound sources." *Journal of the Acoustical Society of America* **73**(1): January 1983.
- Huopaniemi, Jyri and Zacharov, Nick. (1999). "Objective and Subjective Evaluation of Head-Related Transfer Function Filter Design." *Journal of the Audio Engineering Society (AES)* **47**(4): April 1999.
- Huopaniemi, Jyri, and Smith, Julius O. (1999). "Spectral and time-domain preprocessing and the choice of modeling error criteria for binaural digital filters." *Proceedings of the 16th Audio Engineering Society (AES) International Conference on Spatial Sound Reproduction*, Rovaniemi, Finland.

- Jenison, Rick L. (1995). "A spherical basis function neural network for pole-zero modeling of head-related transfer functions." *1995 IEEE ASSP Workshop on Applications of Signal Processing to Audio and Acoustics*: IEEE catalog number: 95TH8144.
- Jenison, Rick L. (1996). "A spherical basis function neural network for approximating acoustic scatter." *Journal of the Acoustical Society of America*, **99**(5): May 1996.
- Jenison, Rick L. and Fissell, Kate. (1995). "A Comparison of the von Mises and Gaussian basis functions for approximating spherical acoustic scatter." *IEEE Transactions on Neural Networks* **6**(5): September 1995.
- Jenison, Rick L. and Fissell, Kate. (1996). "A spherical basis function neural network for modeling auditory space." *Neural Computation*, **8**: 1996.
- Jones, Katharine J. (1998). "Volumetric Image Compression by 3D Discrete Wavelet Transform (DWT)." *Wavelet Applications V, Orlando, FL: Proceedings of the International Society for Optical Engineering (SPIE), vol. 3391.*
- Kahana, Yuvi et al. (1999). "Numerical Modelling of the Transfer Functions of a Dummy-Head and of the External Ear." *Proceedings of the 16th Audio Engineering Society (AES) International Conference on Spatial Sound Reproduction, Rovaniemi, Finland.*
- Kaizer, A.J.M. (1987). "Modeling of the Nonlinear Response of an Electrodynamic Loudspeaker by a Volterra Series Expansion." *Journal of the Audio Engineering Society (AES)* **35**(6): June 1987.
- Kendall, Gary S. (1995). "A 3-D sound primer: Directional hearing and stereo reproduction." *Computer Music Journal*, **19**(4): Winter 1995.

- Kistler, Doris J. and Wightman, Frederic L. (1992). "A model of head-related transfer functions based on principal components analysis and minimum-phase reconstruction." *Journal of the Acoustical Society of America*, **91**(3): March 1992.
- Kuhn, George F. (1977). "Model for the interaural time differences in the azimuthal plane." *Journal of the Acoustical Society of America* **62**(1): July 1977.
- Kuhn, George F. (1979). "The pressure transformation from a diffuse sound field to the external ear and to the body and head surface." *Journal of the Acoustical Society of America* **65**(4): April 1979.
- Kuhn, George F. and Burnett, Edwin D. (1977). "Acoustic pressure field alongside a manikin's head with a view towards *in-situ* hearing-aid tests." *Journal of the Acoustical Society of America* **62**(2): August 1977.
- Kuhn, George F. and Guernsey, Richard M. (1983). "Sound Pressure distribution about the human head and torso." *Journal of the Acoustical Society of America* **73**(1): January 1983.
- Kulkarni, A. et al. (1995). "On the minimum-phase approximation of head-related transfer functions." *1995 IEEE ASSP Workshop on Applications of Signal Processing to Audio and Acoustics*: IEEE catalog number: 95TH8144.
- Kulkarni, Abhijit et al. (1999). "Sensitivity of human subjects to head-related transfer-function phase spectra." *Journal of the Acoustical Society of America* **105**(5): May 1999.
- Kulkarni, Abhijit. (2000). Personal Communication, Bose Corporation, Framingham, MA: July 2000.

- Lee, B.B. and Furgason, E.S. (1983). "High-speed digital Golay code flaw detection system." *Ultrasonics* **21**(4): July 1983.
- Loomis, Jack M. (1995). "Some research Issues in Spatial Hearing." *1995 IEEE ASSP Workshop on Applications of Signal Processing to Audio and Acoustics: IEEE catalog number: 95TH8144.*
- Lorenzi, Christian et al. (1999). "Sound localization in noise in hearing-impaired listeners." *Journal of the Acoustical Society of America* **105**(6): June 1999.
- Malham, David G. and Myatt, Anthony. (1995). "3-D Sound Spatialization using Ambisonic Techniques." *Computer Music Journal*, **19**(4): Winter 1995.
- Martens, William. (2000). "Cluster Analysis of the Head-Related Transfer Function." <http://wwwsv1.u-aizu.ac.jp/~wlm/cluster.html>.
- Martin, Keith D. (1995). "Estimating azimuth and elevation from interaural difference." *1995 IEEE ASSP Workshop on Applications of Signal Processing to Audio and Acoustics: IEEE catalog number: 95TH8144.*
- McMillan, Scott. (1996). "Upper Body Tracking Using the Polhemus FastTrak." Technical Report #NPSCS-96-002, Naval Post Graduate School, Monterey, CA.
- Middlebrooks, John C. (1992). "Narrow-band sound localization related to external ear acoustics." *Journal of the Acoustical Society of America*, **92**(5): November 1992.
- Middlebrooks, John C. and Green, David M. (1990). "Directional dependence of interaural envelope delays." *Journal of the Acoustical Society of America*, **87**(5): May 1990.

- Middlebrooks, John C. et al. (1989). "Directional sensitivity of sound-pressure levels in the human ear canal." *Journal of the Acoustical Society of America*, **86**(1): July 1989.
- Morse, Philip M. (1948). *Vibration and Sound*. McGraw-Hill Book Company, Inc., New York.
- Musicant, Alan D. and Butler, Robert A. (1985). "Influence of monaural spectral cues on binaural localization." *Journal of the Acoustical Society of America*, **77**(1): January 1985.
- Nandy, Dibyendu and Ben-Arie, Jezekiel. (1996). "An auditory localization model based on high-frequency spectral cues." *Annals of Biomedical Engineering*, **24**: 1996.
- Oldfield, Simon R. and Parker, Simon P.A. (1984a). "Acuity of sound localisation: a topography of auditory space. I. Normal listening conditions." *Perception*, **13**: 1984.
- Oldfield, Simon R. and Parker, Simon P.A. (1984b). "Acuity of sound localisation: a topography of auditory space. II. Pinna cues absent." *Perception*, **13**: 1984.
- Oppenheim, Alan V. and Schaffer, Ronald W. (1989). *Discrete-Time Signal Processing*. Prentice Hall, Englewood Cliffs, New Jersey.
- Papoulis, Athanasios. (1991). *Probability, Random Processes, and Stochastic Processes*. McGraw-Hill, Inc., New York.
- Paterson, Kenneth G. (2000a). "Generalized Reed-Muller Codes and Power Controlling OFDM Modulation." *IEEE Transactions on Information Theory* **46**(1): January 2000.

- Paterson, Kenneth G. (2000b). "On the Existence and Construction of Good Codes with Low Peak-to-Average Power Ratios." *IEEE Transactions on Information Theory* **46**(6): September 2000.
- Perrett, Stephen and Noble, William. (1997a). "The contribution of head motion cues to localization of low-pass noise." *Perception and Psychophysics*, **59**(7): 1997.
- Perrett, Stephen and Noble, William. (1997b). "The effect of head rotations on vertical plane sound localization." *Journal of the Acoustical Society of America*, **102**(4): October 1997.
- Pierce, Allan D. (1991). *Acoustics*. Acoustic Society of America, Woodbury, New York: 1991.
- Pope, Stephen T. (ed.) (1995). "About This Issue." *Computer Music Journal*, **19**(4): Winter 1995.
- Popovic, B.M. and Budisin, S.Z. (1987). "Generalized Subcomplementary Sets of Sequences." *Electronics Letters*, **23**(8): April 9, 1987.
- Popovic, Branislav M. (1991). "Synthesis of Power Efficient Multitone Signals with Flat Amplitude Spectrum." *IEEE Transactions on Communications* **39**(7): July 1991.
- Powell, M.J.D. (1987). "Radial basis functions for multivariable interpolation: a review." *Algorithms for Approximation*. Oxford University Press, New York: 1987
- Pralong, Danièle, and Carlile, Simon. (1996). "The role of individualized headphone calibration for the generation of high fidelity virtual auditory space." *Journal of the Acoustical Society of America*, **100**(6): December 1996.

- Pulkii, Ville et al. (1999). "Analyzing Virtual Sound Source Attributes Using a Binaural Auditory Model." *Journal of the Audio Engineering Society (AES)* **47**(4): April 1999.
- Rabinowitz, William. (2000). Personal Communication, Bose Corporation, Framingham, MA: July 2000.
- Rao, K. Raghunath and Ben-Arie, Jezeziel. (1996). "Optimal head related transfer functions for hearing and monaural localization in elevation: A signal processing design perspective." *IEEE Transactions on Biomedical Engineering*, **43**(11): November 1996.
- Rayleigh, L. (1907). "On our perception of sound direction." *Philosophical Magazine* **13**: 1907.
- Rayleigh, L. (1945). "The Theory of Sound." Dover Publications, New York.
- Roads, Curtis. (2000). Personal communication. *Sound in Space 2000 Symposium*, Santa Barbara, CA.
- Rocchesso, Davide.(2000). "Fractionally Addressed Delay Lines." *IEEE Transactions on Speech and Audio Processing*, **8**(6): November 2000.
- Runkle, Paul R. (2000). *Optimization of Head-Related Transfer Functions Using Subjective Criteria*. Ph.D. Dissertation, Department of Electrical Engineering, Systems Division. University of Michigan, Ann Arbor.
- Schetzen, Martin. (1980). *The Volterra & Wiener Theories of Nonlinear Systems*. John Wiley & Sons, New York.
- Schroeder, M.R. (1975). "Diffuse sound reflection by maximum-length sequences." *Journal of the Acoustical Society of America* **57**(1): January 1975.

- Schroeder, M.R. (1979). "Integrated-impulse method measuring sound decay without using impulses." *Journal of the Acoustical Society of America* **66**(2): August 1979.
- Shaw, E.A.G. (1974). "The External Ear." *Handbook of Sensory Physiology V/1: Auditory System, Anatomy Physiology(Ear)*. Springer-Verlag, New York.
- Shaw, E.A.G. and Teranishi, R. (1968). "Sound Pressure Generated in an External-Ear Replica and Real Human Ears by a Nearby Point Source." *Journal of the Acoustical Society of America* **44**(1): July 1968.
- Solo, Victor and Kong, Xuan. (1995). *Adaptive Signal Processing Algorithms*. Prentice Hall, Englewood Cliffs, New Jersey: 1995.
- Speyer, Gavriel, and Furst, Miriam. (1996). "A model-based approach for normalizing the head related transfer function." *Proceedings of the 1996 19th Convention of Electrical and Electronics Engineers in Israel* Jerusalem, Israel: IEEE catalog number 96TH8190.
- Speyer, Gavriel. (1999). A Boundary Element Model for Predicting the Head-Related Transfer Function. M.S. Thesis, Department of Electrical Engineering-Systems, Tel Aviv University.
- Stern, Richard et al. (1988). "Lateralization of complex binaural stimuli: A weighted-image model." *Journal of the Acoustical Society of America*, **84**(1): July 1988.
- Stern, Richard et al. (1991). "Lateralization of rectangularly modulated noise: Explanations for counterintuitive reversals." *Journal of the Acoustical Society of America*, **90**(4) Pt. 1: October 1991.

- Stern, Richard M. and Shear, Glenn D. (1996). "Lateralization and detection of low-frequency binaural stimuli: Effects of distribution of internal delay." *Journal of the Acoustical Society of America*, **100**(4) Pt. 1: October 1996.
- Svennson, U. Peter and Nielsen, Johan L. (1999). "Errors in MLS Measurements Caused by Time Variance in Acoustic Systems." *Journal of the Audio Engineering Society (AES)* **47**(11): November 1999.
- Therrien, Charles W. (1989). *Decision, Estimation, and Classification*. John Wiley and Sons, New York.
- Trahiotis, Constantine and Bernstein, Leslie R. (1996). "Lateralization of bands of noise and sinusoidally amplitude-modulated tones: Effects of spectral locus and bandwidth." *Journal of the Acoustical Society of America*, **79**(6): June 1996.
- Trahiotis, Constantine and Stern, Richard M. (1994). "Across-frequency interaction in lateralization of complex binaural stimuli." *Journal of the Acoustical Society of America*, **96**(6): December, 1994.
- Van Trees, Harry L. (1968). *Detection, Estimation, and Modulation Theory, Part I*. John Wiley and Sons, New York.
- Van Veen, Barry D. and Jenison, Rick L. (1991). "Auditory space expansion via linear filtering." *Journal of the Acoustical Society of America*, **90**(1): July 1991.
- Wang, Jun and Huang, H.K. (1996). "Medical Image Compression by Using Three-Dimensional Wavelet Transformation." *IEEE Transactions on Medical Imaging*: **15**(4): August 1996.
- Wang, Jun. (1995). "Three-dimensional medical image compression using a wavelet transform with parallel computing." *Medical Imaging and Image Display*, San

- Diego, California: *Proceedings of the International Society for Optical Engineering (SPIE)*, vol. 2431.
- Wang, Yun and Sloan, Kenneth. (1995). "3-D Wavelet Transform and Multiresolution Surface Reconstruction from Volume Data." *Wavelet Applications II*, Orlando, FL: *Proceedings of the International Society for Optical Engineering (SPIE)*, vol. 2491.
- Wei, Jun et al. (1995). "Volumetric Image Compression by 3D Discrete Wavelet Transform (DWT)." *Medical Imaging and Image Display*, San Diego, California: *Proceedings of the International Society for Optical Engineering (SPIE)*, vol. 2431.
- Wenzel, Elizabeth M. (1995). "The relative contribution of interaural time and magnitude cues to dynamic sound localization." *1995 IEEE ASSP Workshop on Applications of Signal Processing to Audio and Acoustics*: IEEE catalog number: 95TH8144).
- Wenzel, Elizabeth M. et al. (1993). "Localization using nonindividualized head-related transfer functions." *Journal of the Acoustical Society of America*, **94**(1): July 1993.
- Wightman, Frederic L. and Kistler, Doris J. (1989a). "Headphone simulation of free-field listening. I: Stimulus synthesis." *Journal of the Acoustical Society of America*, **85**(2): February 1989.
- Wightman, Frederic L. and Kistler, Doris J. (1989b). "Headphone simulation of free-field listening. II: Psychophysical validation." *Journal of the Acoustical Society of America*, **85**(2): February 1989.

- Wightman, Frederic L. and Kistler, Doris J. (1992). "The dominant role of low-frequency interaural time differences in sound localization." *Journal of the Acoustical Society of America*, **91**(3): March 1992.
- Wightman, Frederic L. and Kistler, Doris J. (1999). "Resolution of front-back ambiguity in spatial hearing by listener and source movement." *Journal of the Acoustical Society of America* **105**(5): May 1999.
- Wotton, Janine M. and Jenison, Rick L. (1997a). "A backpropagation network model of the monaural localization information available in the bat echolocation system." *Journal of the Acoustical Society of America*, **101**(5) Pt. 1: May 1997.
- Wu, Zhenyang et al. (1997). "A time domain binaural model based on spatial feature extraction for the head-related transfer function." *Journal of the Acoustical Society of America*, **102**(4): October 1997.
- Yang, Wu et al. (1999). "A Three-Dimensional Compression Scheme Based on Wavelet Transform." *Wavelet Applications VI*, Orlando, FL: *Proceedings of the International Society for Optical Engineering (SPIE)*, vol. 2491.
- Yano, Shohei et al. (1999). "A study on the Derivation of Transfer Functions for Sound Image Localization Using Stereo Earphones." *Journal of the Audio Engineering Society (AES)* **47**(6): June 1999.
- Yost, William A. and Gourevitch, George (eds.) (1987). *Directional Hearing*. Springer-Verlag, New York.
- Zahorik et al. (1995). "On the discriminability of virtual and real sound sources." *1995 IEEE ASSP Workshop on Applications of Signal Processing to Audio and Acoustics*: IEEE catalog number: 95TH8144.

Zahorik, Pavel. (2000). "Limitations in using Golay codes for head-related transfer function measurement." *Journal of the Acoustical Society of America*, **107**(3): March 2000.

Zhou et al. (1992). "Characterization of external ear impulse responses using Golay codes." *Journal of the Acoustical Society of America*, **92**(2) Pt 1: August 1992.

Ziomek, Lawrence J. (1995). *Fundamentals of Acoustic Field Theory and Space-Time Signal Processing*. CRC Press, Ann Arbor.