Biographical Sketch

Robert A. Lutfi

Education:

Univ. of S. Florida, Tampa, FL	B.A., M.A.	1975, 77	Exper. Psychology
Loyola Univ. of Chicago, Chicago, IL	Ph.D.	1980	Exper. Psychology
MRC Applied Psych Unit, Cambridge, ENG	Post Doc	1980	Psychoacoustics
Northwestern Univ., Evanston, IL	Post Doc	1981-83	Psychoacoustics

Experience:

1975-1977	Teaching and Research Assistant, Department of Psychology, University of South Florida.
1977-1979	Lecturer and Research Assistant, Psychology Department, Loyola University of Chicago.
1979-1980	Visiting Assistant Professor of Psychology, Psychology Department, Indiana University, Bloomington, IN.
1983-1984	Research Scientist, Central Institute for the Deaf, Washington University, Saint Louis, MO.
1987,88,89	Adjunct Professor of Psychology, Department of Psychology, University of Florida, Gainesville, FL.
1986	Lecturer, Department of Communication Sciences and Disorders, University of Wisconsin, Madison, WI.
1984-1989	Associate Scientist, Waisman Center, University of Wisconsin, Madison, WI.
1989-1992	Assistant Professor of Audiology, Department of Communication Sciences and Disorders, University of Wisconsin, Madison, WI.
1992-1996	Associate Professor of Audiology, Department of Communication Sciences and Disorders, University of Wisconsin, Madison, WI.
1996-2017	Professor of Audiology, Department of Communication Sciences and Disorders, University of Wisconsin, Madison, WI.
1993-1996	Associate Professor of Psychology, Department of Psychology, University of Wisconsin, Madison, WI.
1996-2017	Professor of Psychology, Department of Psychology, University of Wisconsin, Madison, WI.
2006	Chair, Department of Communication Sciences and Disorders, University of Wisconsin – Madison.
2017-present	Professor of Audiology, Department of Communication Sciences and Disorders, University of South Flordia, Tampa, Florida.

Teaching Experience:

1978-1979	Descriptive and Inferential Statistics; Psychology Department, Loyola University of Chicago.
1979-1980	Introduction to Experimental Psychology; Psychology Department, Indiana University.
1986, 96-2017	Hearing Science; Department of Communication Sciences and Disorders; University of Wisconsin.
1989-1991, 96	Psychological Acoustics; Department of Communication Sciences and Disorders; University of Wisconsin.
1989	Psychoacoustic Studies of Hearing Impairment; Department of Communication Sciences and Disorders, University of Wisconsin.
1990,92-94	Human Information Processing; Department of Communication Sciences and Disorders, University of Wisconsin.
1992-2017	Normal Aspects of Hearing; Department of Communication Sciences and Disorders, University of Wisconsin.
2000, 2017	Acoustics, Electroacoustics, and Calibration, Department of Communication Sciences and Disorders, University of Wisconsin, Madison.
2002-2017	Introduction to Communicative Disorders, Department of Communication Sciences and Disorders, University of Wisconsin, Madison.
2002-2017	Physiological and Psychological Acoustics, Department of Communication Sciences and Disorders, University of Wisconsin, Madison.

2017-present Research Methods in CSD, Department of Communication Sciences and Disorders, University of South Florida.
2017-present Hearing Science, Department of Communication Sciences and Disorders, University of South Florida.

Other Professional Activities and Honors:

Editorial Consultant for the Journal of the Acoustical Society of America, Journal of Experimental Psychology, Perception and Psychophysics, IEEE Transactions on Audio, Speech and Language Processing.
Ad hoc reviewer for the National Science Foundation.
Ad hoc reviewer for the National Institutes of Deafness and Communicative Disorders
Ad hoc reviewer for National Energy Systems, Air Force Office of Scientific Research.
Ad hoc reviewer for United States Civilian Research and Development Foundation
Ad hoc reviewer for Israel Science Foundation
Consultant on various NSF and NIH Grants.
Former Member of Committee on Psychological and Physiological Acoustics, Acoustical Society of America.
Fellow of the Acoustical Society of America
Member of the American Statistical Association
Member Executive Committee, Psychological Acoustics, Acoustical Society of America.
Member Technical Committee, Psychological Acoustics, Acoustical Society of America, 2002-2005
University of Wisconsin, Faculty Senate, 1990-1995
Associate Editor, Physiological and Psychological Acoustics, Journal of the Acoustical Society of America, 2004-2007
Chair, Dept. of Communicative Disorders, Univ. of Wisconsin – Madison, 2006-2007
Member of Social and Behavioral Science Internal Review Board, Univ. of Wisconsin – Madison, 2006-2007
Associate Editor, Journal of Speech, Language and Hearing Research, 2011
Member Technical Committee, Psychological Acoustics, Acoustical Society of America, 2011-2014
Member Laboratory Assessments Board, National Academy of Sciences, Human Factors Science at the Army Research Lab, 2012-2014
Member Intelligence Science and Technology Experts Group, Natl. Acad. Sci. Eng. and Med., 2015-Present
Member of Screening Panel for the Flame Challenge International Science Competition, hosted by the Alan Alda Center for Communicating Science at Stony Brook University
Member Executive Committee, Auditory Cognitive Neuroscience Society

Grants, Fellowships and Awards:

NIH Individual Postdoctoral Fellowship, "Binaural Measures of Cubic Distortion", 1980-1982.
NIH Institutional Postdoctoral Fellowship, "Training in the Neurobiology of Hearing", Northwestern Univ., Evanston, IL, 1982-1983.
NSF Research Grant (BNS83-08498), "Additivity of Auditory Masking", 1983-1986, $127,997.
NSF Supplement to BNS83-08498, 1985-1986, $4,290.
Deafness Research Foundation, "Additivity of Auditory Masking in the Hearing Impaired", 1986-1987, $12,500.
Deafness Research Foundation, Competitive renewal of above, 1988-1989, $15,000.
Deafness Research Foundation, Competitive renewal of above, 1989-1990, $15,000.
NSF Equipment Grant, "Neurosciences Research Computing Network", Frederic L. Wightman and Paul Milenkovic Co-PIs, 1987, $59,370.
Air Force Office of Scientific Research (86-NL-178), "Auditory Pattern Analysis", 1987-1990, $392,664.
Office of Naval Research (1142-88-A0138), "Central Factors in the Classification of Transient Acoustic Signals", 1989-1992, $228,152.
UW Graduate School Grant-in-Aid Award, 1989-1990, $8,000.
UW Letters and Science Remodelling Award, 1989, $27,400.
NICHHD (1 R01 HD NS23333-01), "Hearing Assessment in Preschool and School-Aged Children", Frederic L. Wightman, Co-PI, 1989-1992, $455,354.
NICHHD (1 R01 HD NS23333-05), Competitive renewal of above, 1992-1997, $624,295.
NIDCD (1 R01 DC01262-01), "The Information in Auditory Patterns", 1991-1994, $618,853.

UW Graduate School Grant-in-Aid Award, 1992, $17,000.
Depart. of Education, "Clinical Research Training in Audiology", Terry Wiley PI, 1994-1999.
NIDCD (1 R01 DC01262-05), "The Information in Auditory Patterns", 1995-2000, $752,528.
UW Division of Information Technology (DoIT), INTIME Undergraduate Instructional Technology Award, 1998, $5000.
NICHHD (1 R01 HD NS23333-09), "Hearing Assessment in Preschool and School-Aged Children", Frederic L. Wightman, Co-PI, 2000-2005, $649,602, 1999-2004.
NIDCD, Neural Basis of Hearing, Program Project Grant, Medical School, University of Wisconsin, Madison, John Brugge PI, 3/1/99-2/28/24, $6,879,362.
NIDCD (1 R01 DC01262-10), "The Information in Auditory Patterns", 2000-2005, $900,000.
NOHR. "The Effects of Hearing Loss on the Discrimination of Static and Dynamic Spectral Relationships", Joshua M. Alexander, Co-PI, 2004, $15,000.
Podcasting Plus Engage Award, 2006, Division of Information Technology, Univ. of Wisconsin - Madison
Hilldale Undergraduate Fellowship, "Auditory Preferences of Autistic Children," Awarded to Lynn Johnson, Sponsored by R. Lutfi, $5000.
NIDCD (1 R01 DC006875-01), "A New Approach to Sound Source Identification", 2005-2010, $1,258,202.
NIDCD (2 R01 DC001262-15), "The Information in Auditory Patterns", 2007-2012, $1,265,828.
NIDCD (2 R01 DC001262-20), "Sound Source Segregation," 2/15/2013 - 1/31/2018, $1,840,850.00.
UW Bridge Funding, "Auditory sensitivity for acoustic information related to sound source attributes" 7/1/2013 - 6/30/2015, $38,440
Univ. of South Florida Program Enhancement Grant, "Individual differences listening in noise in clinically-normal hearing adults," 5/1/2018 - 4/30/2019, $15,303.00.
NIDCD (2 R01 DC001262-27), "Individual differences listening in noise in clinically-normal hearing adults," 7/1/2019 - 6/30/2024, Total Cost: $3,002,899.00.

Publications:

Lutfi, R. A., & Yost, W. A. (1980). Two-tone unmasking in the forward masking procedure: Suppression or temporal cueing? Journal of the Acoustical Society of America, 68, 700-702.

Lutfi, R. A., & Yost, W. A. (1981). Measurement of the $2f_1$-f_2 cubic difference tone with the binaural masking level difference. Journal of the Acoustical Society of America, 69, 216-222.

Lutfi, R. A., & Patterson, R. D. (1982). Combination bands and measurement of the auditory filter. Journal of the Acoustical Society of America, 71, 421-423.

Glasberg, B., Moore, B. C. J., & Lutfi, R. A. (1982). Off-frequency listening and masker uncertainty. Journal of the Acoustical Society of America, 72, 273-275.

Yost, W. A., Grantham, D. W., Lutfi, R. A., & Stern, R. (1982). The phase angle of addition in temporal masking for diotic and dichotic listening conditions. Hearing Research, 7, 247-260.

Lutfi, R. A. (1983a). Additivity of simultaneous masking. Journal of the Acoustical Society of America, 73, 262-267.

Lutfi, R. A. (1983b). Simultaneous masking and unmasking with bandlimited noise. Journal of the Acoustical Society of America, 73, 899-905.

Patterson, R. D., Milroy, R., & Lutfi, R. A. (1983). Detecting a repeated tone burst in repeated noise. Journal of the Acoustical Society of America, 73, 951-954.

Lutfi, R. A., & Patterson, R. D. (1984). On the growth of masking asymmetry with stimulus intensity. Journal of the Acoustical Society of America, 76, 739-745.

Lutfi, R. A. (1984). Predicting frequency selectivity in forward masking from simultaneous masking. Journal of the Acoustical Society of America, 76, 1045-1050.

Lutfi, R. A. (1985a). A power-law transformation predicting masking by sounds with complex spectra. Journal of

the Acoustical Society of America, 77, 2128-2136.

Lutfi, R. A. (1985b). A reply to Dr. B. C. J. Moore [Journal of the Acoustical Society of America, 78, 253-255 (1985)]. Journal of the Acoustical Society of America, 78, 255-257.

Lutfi, R. A., & Wightman, F. L. (1985). A comparison of psychophysical tuning curves obtained using bandpass and modulated noise. Hearing Research, 17, 289-291.

Lutfi, R. A. (1986). Two- versus four-tone masking, revisited. Journal of the Acoustical Society of America, 80, 422-428.

Lutfi, R. A. (1987). Masking additivity in the hearing-impaired. Hearing Research, 25, 3-10.

Lutfi, R. A. (1988a). Interpreting measures of frequency selectivity: Is forward masking special? Journal of the Acoustical Society of America, 83, 163-177.

Lutfi, R. A. (1988b). Complex interactions between pairs of forward maskers. Hearing Research, 35, 71-78.

Lutfi, R. A. (1989). Informational processing of complex sound: I. Intensity Discrimination. Journal of the Acoustical Society of America, 86, 934-944.

Lutfi, R. A. (1990a). Informational processing of complex sound: II. Cross-dimensional analysis. Journal of the Acoustical Society of America, 87, 2141-2148.

Lutfi, R. A. (1990b). How much masking is informational masking? Journal of the Acoustical Society of America, 88, 2607-2610.

Lutfi, R. A. (1991). Comment on "Analysis of weights in multiple observation tasks" [J. Acoust. Soc. Am. 86, 1743-1746 (1989)]. Journal of the Acoustical Society of America, 91, 507-508.

Lutfi, R. A. (1992). Informational processing of complex sound: III. Interference. Journal of the Acoustical Society of America, 91, 3391-3401.

Lutfi, R. A. (1993). A model of auditory pattern analysis based on component-relative-entropy. Journal of the Acoustical Society of America, 94, 748-758.

Lutfi, R. A. (1994). Discrimination of random, time-varying spectra with statistical constraints. Journal of the Acoustical Society of America, 95, 1490-1500.

Lutfi, R. A., and Doherty, K.A. (1994). Effect of component-relative entropy on the discrimination of simultaneous tone complexes. Journal of the Acoustical Society of America, 96, 3443-3450.

Lutfi, R. A. (1995). Correlation coefficients and correlation ratios as estimates of observer weights in multiple-observation tasks. Journal of the Acoustical Society of America, 97, 1333-1334.

Lutfi, R. A. (1995). Further comments on proportional duration and proportional variance as factors in auditory pattern discrimination. Journal of the Acoustical Society of America, 97. 1339-1340.

Stellmack, M. A., and Lutfi, R. A. (1996). Observer weighting of concurrent binaural information. Journal of the Acoustical Society of America 99, 579-587.

Doherty, K. A., and Lutfi, R. A. (1996). Spectral weights for overall level discrimination in listeners with sensorineural hearing loss. Journal of the Acoustical Society of America 99, 1053-1058.

Lutfi, R. A., Doherty, K. A., and Oh, E. (1996). Psychometric functions for the discrimination of spectral variance. Journal of the Acoustical Society of America, 100, 2258-2265.

Willihnganz, M.S., Stellmack, M.A., Lutfi, R.A., and Wightman, F.L. (1997). Spectral weights in level

discrimination by preschool children: Synthetic listening conditions. Journal of the Acoustical Society of America, 101, 2803-2810.

Stellmack, M.A., Willihnganz, M.S., Wightman, F.L., and Lutfi, R.A. (1997). Spectral weights in level discrimination by preschool children: Analytic listening conditions. Journal of the Acoustical Society of America, 101, 2811-2821.

Lutfi, R.A., and Oh, Eunmi (1997). Auditory discrimination of material changes in a struck, clamped bar. Journal of Acoustical Society of America, 102, 3647-3656.

Oh. E., and Lutfi, R.A. (1998). Nonmonotonicity of informational masking, Journal of Acoustical Society of America, 104, 3489-3499.

Doherty, K.A., and Lutfi, R.A. (1999). Level discrimination of individual spectral components of a multitone complex by normal-hearing and hearing-impaired listeners. Journal of the Acoustical Society of America, 105, 1831-1840.

Lutfi, R.A., and Wang, W. (1999). Correlational analysis of acoustics cues for auditory motion. Journal of Acoustical Society of America. 106, 919-928.

Oh, E.L., and Lutfi, R.A. (1999). Informational masking by everyday sounds. Journal of Acoustical Society of America. 106, 3521-3528.

Oh, E.L., and Lutfi, R.A. (2000). Effect of harmonicity on informational masking. Journal of Acoustical Society of America. 108, 706-709.

Oh, E.L., Wightman, F., and Lutfi, R.A. (2001). Children's detection of pure-tone signals with random multitone maskers. Journal of Acoustical Society of America. 109, 2888-2895.

Lutfi, R.A. (2001). Auditory detection of hollowness. Journal of Acoustical Society of America. 110, 1010-1019.

Lutfi, R.A., Kistler, D.J., Oh, E.L., Wightman, F.L., and Callahan, M.R. (2003). One factor underlies individual differences in auditory informational masking within and across age groups. Perception and Psychophysics. 65(3), 396-406.

Wightman, F.L., Callahan, M.R., Lutfi, R.A., Kistler, D.J., and Oh, E.L. (2003). Childrens' detection of pure-tone signals: Informational masking with contralateral maskers. Journal of Acoustical Society of America, 113, 3297-3305.

Lutfi, R.A., Kistler, D.J., Callahan, M.R., and Wightman, F.L. (2003). "Psychometric functions for informational masking." Journal of Acoustical Society of America. 114(6), 3273-3282.

Alexander, J.M. and Lutfi, R.A. (2004). "Informational masking in hearing-impaired and normal-hearing listeners: Sensation level and decision weights," Journal of Acoustical Society of America, 116, 2234-2247.

Lutfi, R.A. and Alexander (2005). "Effects of informational maskers within and across trials," Journal of Acoustical Society of America, 118, 322-324.

Lutfi, R.A., Oh, E., Storm, E., and Alexander, J.M. (2005). Classification and identification of recorded and synthesized impact sounds by practiced listeners, musicians and nonmusicians. Journal of Acoustical Society of America, 118, 393-404. PMID: 16119360.

Lutfi, R.A. and Jesteadt (2006). Molecular analysis of the effect of relative tone level on multitone pattern discrimination. Journal of Acoustical Society of America, 120, 3853-3860. PMID: 17225412.

Lutfi, R.A. and Liu, C.J. (2007). Individual differences in source identification from synthesized impact sounds. Journal of Acoustical Society of America, 122, 1017-1028. PMID: 17672650.

Alexander, J.M. and Lutfi, R.A. (2008). "Sample discrimination of frequency by hearing-impaired and normal-hearing listeners," Journal of Acoustical Society of America, 123, 241-253.

Arora, R. and Lutfi, R.A. (2008). Detection-theoretic analysis of the observer-based psychophysical procedure. Journal of the Acoustical Society of America, 123, 1850-1853.

Lutfi, R.A. and Liu, C.J., Stoelinga, C.N.J. (2008). Level dominance in sound source identification. Journal of Acoustical Society of America, 124, 3784-3792. PMCID: PMC2737249.

Arora, R. and Lutfi, R.A. (2008). An efficient code for environmental sound classification. Journal of the Acoustical Society of America, 126, 7-10. PMCID: PMC2723904.

Lutfi, R.A. and Stoelinga, C.N.J. (2010). Sensory constraints on the identification of the geometric and material properties of struck bars. Journal of Acoustical Society of America, 127, 350-360. PMCID: PMC2821150.

Lutfi, R.A., Liu, C.J. and Stoelinga, C.N.J. (2011). Auditory discrimination of force of impact. Journal of Acoustical Society of America, 129, 2104-2111. PMCID: PMC2147666

Lutfi, R.A. and Liu, C.J. (2011a). A method for evaluating the relation between sound source segregation and masking. Journal of Acoustical Society of America, 129, EL34-38. PMCID: PMC21302979

Lutfi, R.A. and Liu, C.J. (2011b). Target enhancement and noise cancellation in the identification of a rudimentary sound source in noise. Journal of Acoustical Society of America, 129, EL52-56. PMCID: PMC21361412.

Stoelinga, C.N.J. and Lutfi, R.A. (2011a). Modeling manner of contact in the synthesis of impact sounds for perceptual research. Journal of Acoustical Society of America 130(2):EL62-68. PMCID: PMC3155581.

Stoelinga, C.N.J. and Lutfi, R.A. (2011b). Discrimination of the spectral density of multitone complexes. Journal of Acoustical Society of America, 130, 2882-2890, PMCID: PMC3248058.

Lutfi, R.A. and Gilbertson, L. (2011). Effect of decision weights and internal noise on the growth of d' with N. Journal of Acoustical Society of America, 130, EL329-333. PMCID: PMC3206900.

Lutfi, R.A. and Gilbertson, L. (2012). Spectral integration versus multiple looks in the sample discrimination of intensity. Journal of Acoustical Society of America, 131, EL42-47. PMCID: PMC3253590

Lutfi, R.A., Chang, A-C, Stamas, J., and Gilbertson, L. (2012). "A detection-theoretic framework for modeling informational masking," Journal of Acoustical Society of America 132, EL109. PMCID: PMC3407140

Lutfi, R.A. and Heo, I. (2012). Automated detection of alarm sounds. Journal of Acoustical Society of America, 132, EL125. PMCID: PMC3407141

Lutfi, R.A., Gilbertson, L. Chang, A-C, and Stamas, J. (2013). "The information divergence hypothesis of informational masking," Journal of Acoustical Society of America 134, 2160-2170. PMCID: PMC3765281

Stoelinga, C., Heo, I., Long, G., Lee, J.M. and Lutfi, R.A. (2014). "Possible role of cochlear nonlinearity in the detection of mistuning of a harmonic component in a harmonic complex," 12th International Workshop on the Mechanics of Hearing, Sounio, Greece.

Gilbertson, L. and Lutfi, R.A. (2014). "Correlations of decision weights and cognitive function for the masked discrimination of vowels by young and old adults", Hearing Research, 317, 9-14. PMCID: PMC4253306

Gilbertson, L. and Lutfi, R.A. (2015). "Estimates of decision weights and internal noise for the masked discrimination of vowels by young and elderly adults", Journal of Acoustical Society of America, 137, EL403-407. PMCID: PMC4441709

Chang, A.C., Lutfi, R.A. and Lee, J. (2015). "Auditory streaming of tones of uncertain frequency, level and duration," Journal of Acoustical Society of America, 138, EL504-508.

Chang A-C, Lutfi R.A., Lee J. and Heo I. (2016). "A detection-theoretic analysis of auditory streaming and its relation to auditory masking," Trends in Hearing, 20, 1-9.

Lee, J., Heo, I., Chang, A-C., Bond, K., Steolinga, C., Lutfi, R.A. and Long, G. (2016). "Individual differences in behavioural decision weights related to irregularities in cochlear mechanics", Adv. Exp. Med. Biol. 894, 457-

465.

Gilbertson, L., Lutfi, R.A. and Ellis-Weismer, S. (2017). "Auditory preference of children with autism spectrum disorders," Cognitive Processing, 18(2), 205-209.

Lutfi, R.A., Tan, A.Y. and Lee, J.M. (2017). "Individual differences in cocktail party listening: The relative role of decision weights and internal noise" Journal of the Acoustical Society of America, Proceed. Meetings on Acoustics 30(1), 1-7.

Lutfi, R.A., Tan, A.Y, and Lee, J. (2018). "Modeling individual differences in cocktail-party listening", Special issue, *Acta Acustica united with Acustica*, 104, 787-791.

Rodriguez, B., Lee, J. and Lutfi, R.A. (2019). "Synergy of Spectral and Spatial Segregation Cues in Simulated Cocktail Party Listening", Proc. Mtgs. Acoust. **36**, 050005; https://doi.org/10.1121/2.0001092.

Book Chapters and Reviews:

Weber, D. A., & Lutfi, R. A. (1986). The unimportance of suppression. Auditory Frequency Selectivity, A NATO Advanced Workshop, B. C. J. Moore & R. D. Patterson, (eds.) Plenum: New York.

Lutfi, R.A., and Doherty, K.A. (1996). Modeling level discrimination of broadband signals by listeners with sensorineural hearing loss. Chapter in Modeling Sensorineural Hearing Loss. Editor: Jesteadt, W., Erlbaum Press: New York, pp. 235-245.

Lutfi, R.A. (2004). Decision making in conditions of uncertainty. A review of *Elementary Detection Theory* by T. Wickens. In Contemporary Psychology, vol. 49 (3), 314-316.

Lutfi, R.A. (2008). Sound Source Identification. In *Springer Handbook of Auditory Research: Auditory Perception of Sound Sources* Edited by W.A. Yost. And A.N Popper (Springer-Verlag, New York). ISBN: 978-0-262-01341-3.

Lutfi, R.A. (2008). Audition: Auditory Masking. In *SAGE: Encyclopedia of Perception* Edited by B. Goldstein, (SAGE Publications, Inc., Thousand Oaks, CA). ISBN: 978-1-412-94081-8.

Lutfi, R.A., Liu, C.J. and Stoelinga, C.N.J. (2013). A new approach to sound source identification. In *Basic Aspects of Hearing: Physiology and Perception* (Springer: NewYork), vol. 787, 2013, pp 203-211.

Steolinga, C., Heo, I., Long, G., Lee, J., Chang, A-C. and Lutfi, R.A. (2015). "Possible role of cochlear nonlinearity in the detection of mistuning of a harmonic complex", In *Mechanics of Hearing: Protein to Perception*. (Melville: NewYork), 090022:1-5.

Lee, J., Heo, I., Chang, A-C., Bond, K., Steolinga, C., Lutfi, R.A. and Long, G. (2016). "Individual differences in behavioural decision weights related to irregularities in cochlear mechanics", In *Physiology, Psychoacoustics and Cognition in Normal and Impaired Hearing*. (Springer: NewYork), pp. 457-465.

Invited papers:

Lutfi, R. A. (1979). The perception of missing tones. The Parmly Hearing Institute Lecture Series, Loyola University of Chicago, Chicago, Illinois.

Lutfi, R. A. (1981). Auditory masking: A new look at an old paradigm. Chaucer Club Lecture Series, MRC Applied Psychology Unit, Cambridge, England.

Lutfi, R. A. (1981). Auditory filter nonlinearity. MRC Institute of Hearing Research, Nottingham, England.

Lutfi, R. A. (1981). Auditory filter nonlinearity and the growth of masking asymmetry. Department of Communication and Neurosciences, University of Keele, Keele, England.

Lutfi, R. A. (1988a). An information-theoretic approach to complex sound discrimination. Wright Patterson Air Force Base, Dayton, Ohio, USA.

Lutfi, R. A. (1988b) Informational processing of complex sound by normal-hearing and hearing-impaired listeners. Boys Town National Institute, Omaha, Nebraska, USA.

Lutfi, R. A. (1988c). Informational processing of complex sound. Institute for the Study of Human Capabilities, Psychology Department, Indiana University, Bloomington, Indiana, USA.

Lutfi, R. A. (1989a). Neural networks. Department of Psychology, University of Florida, Gainesville, Florida, USA.

Lutfi, R. A. (1989b). Complex auditory pattern perception. Engineering Foundation Research Conference on Implantable Auditory Prostheses, Potosi, Missouri, USA.

Lutfi, R. A. (1990). Human detection and discrimination of uncertain acoustic signals. Institute for the Study of Human Capabilities, Psychology Department, Indiana University, Bloomington, Indiana, USA.

Lutfi, R. A. (1991a). Uncertainty and auditory pattern analysis. Parmly Hearing Institute Lecture Series, Parmly Hearing Institute, Loyola University of Chicago, Chicago, Illinois, U.S.A.

Lutfi, R. A. (1991b). The information in auditory patterns. Boys Town National Institute, Omaha, Nebraska, USA.

Lutfi, R. A. (1992a). Human classification of complex sound. Office of Naval Research Bioacoustic Signal Classification Workshop, Wilmington, North Carolina, U.S.A.

Lutfi, R. A. (1992b). Auditory pattern analysis: Creating order from entropy. Boys Town National Institute, Omaha, Nebraska, USA.

Lutfi, R. A. (1995). Discriminating sounds of substance: Brass, glass, iron, and steel. Syracuse University, Syracuse, New York, USA.

Lutfi, R.A., and Doherty, K.A. (1996). Modeling level discrimination of broadband signals by listeners with sensorineural hearing loss. Boys Town Symposium on Modeling Sensorineural Hearing Loss, Omaha, NB.

Lutfi, R. A., Oh, E., and Wang, W. (1996). "Correlational analysis of acoustic cues for material and motion." Special Session on Auditory Organization and Representation, Joint meeting of the American and Japanese Acoustical Society in Hawaii. One of three papers selected to represent the American Acoustical Society.

Lutfi, R. A. (1997). Predicting the effects of the unpredictable in auditory detection. Boys Town National Institute, Omaha, Nebraska, USA.

Lutfi, R.A. (1997). Pitch, timbre, and hearing loss: Some topics of interest to piano tuners. Talk given to the Piano Technicians Guild, Madison Chapter. Madison, WI, USA.

Lutfi, R.A. (1998). Cochlear mechanics. Symposium on Cochlear Implants in Children, Sponsored by the Department of Communication Sciences and Disorders, Univ. of Wisconsin - Madison, WI, USA.

Lutfi, R.A. (2002). Hearing and listening in hearing-impaired listeners: Two factors affecting detection in noise. Boys Town National Research Hospital, Omaha, Nebraska, USA.

Lutfi, R.A. (2002). Perturbation Analysis of Acoustic Cues for Sound Source Determination. Technische Universiteit Eindhoven, The Netherlands.

Lutfi, R.A. (2002). A decision-theoretic approach to sound source determination. Department of Psychology, EarClub, University of California, Berkeley, CA, USA.

Lutfi, R.A. (2002). Auditory informational masking in hearing-impaired listeners. Boston University, Hearing Research Seminar Series, Boston, MA. USA.

Alexander, J.M. and Lutfi, R.A. (2004). Listening weights for signals and maskers with uncertain frequency in normal-hearing and hearing-impaired listeners, J. Acoust. Soc. Am., 115, 2574.

Lutfi, R.A. (2004). Molecular psychophysics and sound source identification. Invited talk, Special Session on the Perception of Complex Sound Honoring Charles S. Watson, Journal of the Acoustical Society of America., 115, 2527.

Lutfi, R.A. (2005). A dynamics-based approach to sound source identification. Invited talk, Boys Town National Research Hospital, Omaha, NE.

Lutfi, R.A. (2005). A dynamics-based approach to sound source identification. Invited talk, Chaos and Complex Systems Seminar. University of Wisconsin – Madison, WI.

Lutfi, R.A., Storm, E., and Alexander, J.M. (2005). Psychoacoustic evaluation of a low-parameter modal model for synthesizing impact sounds. Journal of the Acoustical Society of America, 117, 2372.

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