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Education

- Ph.D.**, Electrical and Computer Engineering Department, University of Connecticut, CT, 2002. GPA:4.0/4.0
- M.S.E.**, Electrical and Computer Engineering Department, University of Connecticut, CT, 2000. GPA:4.0/4.0
- B.S.** Electrical Engineering Department, Tsinghua University, Beijing, 1996. GPA:92/100 (Top 1 among 35).

Honors and Awards

- *2005 Best Paper Award from IEEE Signal Processing Society*, co-authored, for a paper published in IEEE Transaction on Signal Processing.
- *2004 EURASIP Best Paper Award* - for the best paper published in EURASIP Journal on Applied Signal Processing in 2004, 2005.
- *Junior Early Career Scholar Award*, Peter Wall Institute for Advanced Studies, University of British Columbia, 2005.
- *Outstanding Engineering Doctoral Student Award*, University of Connecticut, 2001. Awarded to one out of all engineering school graduate students per year.
- *Excellent Graduate Award* (highest honor), Tsinghua University, Beijing, 1996.
- Won the following Scholarships as the highest honor awarded to the top students in the Department of Electrical Engineering every year, Tsinghua University, 1991-1995: *12.9 Memorial, Jieneng, Motorola, and Tsinghua University Scholarships*.

Research Grants and Contracts

- Co-applicant, "Information management and security in media-sharing social networks," NSERC SPG (Strategic Project Grant) (with Rabab Ward (PI) and Vicky H. Zhao (Univ. of Alberta)), \$470,400, Oct. 2008 Oct. 2011.
- Co-applicant, "Enabling technologies for secure and reliable wireless body area sensor networks, NSERC SPG (Strategic Project Grant) (with Victor Leung (PI), David Michelson, and Richard Yu (Carleton University)), \$615,100, Oct. 2008 Oct. 2011.
- Co-applicant, "RFID-based sensor networks for detecting and tracking mobile targets," (with Vincent Wong (PI), Ian Blake, Lutz Lampe, Victor Leung, and Shahriar Mirabbasi), NSERC SPG, \$679,000, Oct. 2008 Oct. 2011.

- Co-applicant, “Failure of multi-tasking: the combination of postural perturbations and reaching puts PD subjects at risk for falling”, National Parkinsons Foundation (NPF) (with Mark Carpenter (PI), Martin McKeown, Meeko Oishi), \$90,000, Aug. 2007 to Aug. 2010.
- Co-applicant, “Monitoring and Control of Abnormal Brain Dynamics”, MSFHR Team Start-up Grant (with M. McKeown (PI), M. Oishi, K. Murphy, E. Cretu, S. Fels), \$225,000, 2007 to 2010.
- Co-applicant, “Making the connection: Methods to infer functional connectivity in brain studies”, CHRP program of NSERC/CIHR (with M. McKeown, R. Abugharbieh, and F. Beg), \$344,000, Apr. 2006 to Apr. 2009.
- Principal Investigator (PI), “Acquisition, Computing and Analysis Systems for Multimedia Information Processing and Forensics”, NSERC Research Tools and Instruments - Category 1 (with P. Nasiopoulos and R. Ward), \$28,000, 2006.
- PI, “Multimedia Fingerprinting Against Collusion-Attack”, NSERC Discovery Grant (individual), \$ 115,000, 2005-2010.
- Co-applicant, “Novel assessment of motor performance in patient populations”, VCHRI (Vancouver Coastal Health Research Institute) Interdisciplinary Research Grants Competition 2005 (with PI, Martin McKeown, and Janice Eng), 2005.
- University of British Columbia (UBC) start-up funding, \$50,000.
- Co-PI, “A Collusion-Resistant Multimedia Fingerprinting Framework For Information Forensics” (with PI, Min Wu, K. J. Ray Liu, and Wade Trappe), AFOSR/Rome, \$220,000, 2003-2004.
- Co-applicant, “Signal Processing for Ultrasonic Nondestructive Inspection of Tanks” (with PI, K. J. Ray Liu), MARYLAND INDUSTRIAL PARTNERSHIPS (MIPS), \$150,000, Aug. 2003-Aug. 2004.

Experience

- *Assistant Professor*, Electrical & Computer Engineering Department, University of British Columbia, Vancouver, Canada, Aug. 2004 - present.
Research focus: Multimedia Security, Biomedical imaging and information processing, and Genomic Signal Processing and statistics.
- *Research Associate*, Electrical & Computer Engineering Department, and Institute for Systems Research (ISR), University of Maryland, College Park, June 2002 - Aug. 2004.
Research focus: Information Security, Wireless Communications and Networking, Biomedical Imaging, and Genomic Signal Processing.
- *Research Assistant*, Signal Processing Lab, University of Connecticut, CT, Feb. 1998 - May 2002.
Research focus: Signal Detection, Classification and Segmentation.
- *Research Assistant*, Grinding Center, University of Connecticut, CT, Feb. 1998 - Dec. 2000.
Research focus: Surface burn/crack detection during grinding using Acoustic Emission (NSF grant).
- *Software Engineer*, Apple Computer Inc. (China), China, July 1996 - Feb. 1998.
System Builder: Building, integrating, releasing and archiving all system products.
Software Engineer: Developing software (e.g., tools to reduce cycle time on MacOS building, Chinese Dictation Kit).

- *Research Assistant*, High Voltage Lab, Electrical Engineer Department, Tsinghua University, Sep. 1992 - July 1996.
Research focus: Power Engineering.
Projects include: New Type Ozone Generator and Applications; Improved Simulated Charge Method; and Detection of Ground Default of Tree Type Network.

Teaching and Advising Experience

A. Teaching Experience

- *Instructor*: EECE360(*Systems and Control*), EECE466(*Digital Signal Processing*), EECE434 (Biosignals and Systems), EECE586 (Wavelets), and EECE571b (*Multimedia Information Security*), University of British Columbia.
- *Co-Instructor*: ENEE724, *Statistical and Adaptive Signal Processing*, Fall 2002, University of Maryland, College Park.
- *Teaching Assistant*: ECE201, *Fundamentals of Circuit Analysis*, Fall 2001, University of Connecticut, CT.

B. Graduate Advising Experiences

- Co-supervising experience at University of Maryland (Advisor: K. J. Ray Liu): Peng Qiu (Ph.D. Student), Chaiyod Pirak (Ph.D. Student).
- Advising experience at University of British Columbia: Junning Li, Xiaohui Chen, Amir Valizadeh, Chen He, Joyce Chiang, Xudong Lv, Zheng Ma, Amir Valizadeh, Pamela Lee, Marwa Gadala, and Adarsh Golikeri.

Professional Activities

- Associate Editor, IEEE Transactions on Multimedia, 2008 - .
- Guest Editor, special issue on IEEE Journal of Selected Topics in Signal Processing, 2008.
- Associate Editor, EURASIP Journal on Bioinformatics and Systems Biology, 2005 - .
- Member, IEEE Bio Imaging and Signal Processing Technical Committee, IEEE Signal Processing Society, elected for a term of 2007-2009.
- Chair and founder, IEEE Signal Processing Chapter at Vancouver, IEEE Signal Processing Society.
- Finance Chair (expected), IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Vancouver, Canada, 2013.
- Co-Chair, Signal Processing for Communications Symposium, 16th International Conference on Computer Communications and Networks (ICCCN), Hawaii, USA, 2007.
- Session Chair (on Biomedical Signal Processing), IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Hawaii, USA, 2007.
- Co-ViceChair, Second International Symposium on Multimedia over Wireless (ISMW2006), Vancouver, Canada, July 3-6,2006.
- Publicity Chair, IEEE Signal Processing Society 2006 International Workshop on Multimedia Signal Processing (MMSP06), Victoria, Canada, Oct. 3-6, 2006.

- Co-Chair of Local Arrangement and Technical Program Committee Member, IEEE International Conference on Systems, Man & Cybernetics (SMC), Oct. 2003.
- Session Chair, IEEE International Conference on Multimedia and Expo (ICME), Baltimore, July 2003.
- Finance Chair, Workshop on Genomic Signal Processing and Statistics (GENSIPS2005), expected at Brown, May 2005.
- Reviewer for international journals
 - IEEE Transaction on Signal Processing; Signal Processing;
 - IEEE Transaction on Communications;
 - IEEE Transaction on Aerospace and Electronic Systems;
 - IEEE Transaction on Systems, Man, and Cybernetics;
 - EURASIP Journal on Applied Signal Processing;
 - Journal of Oceanic Engineering.
- Reviewer for international conferences
 - IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP);
 - IEEE International Conference on Systems, Man & Cybernetics (SMC);
 - IEEE International Conference on Multimedia and Expo. (ICME);
 - IEEE International Conference on Communications (ICC);
 - IEEE International Conference on Image Processing (ICIP).

Book

1. Co-editors: Edward R. Dougherty, Ilya Shmulevich, Jie Chen, and Z. Jane Wang, *Genomic Signal Processing and Statistics*, edited, EURASIP Book Series on Signal Processing and Communications, Hindawi Publishing Corporation, May 2005.
2. K. J. Ray Liu, W. Trappe, Z. Jane Wang, M. Wu, and H. Zhao, *Digital Fingerprinting for Multimedia Forensics*, Hindawi Publishing Corporation, Nov. 2005.

Journal Publications Published and Accepted:

1. J. Li and Z. Jane Wang, “Controlling the False Discovery Rate of the Association/Causality Structure Learned with the PC-Algorithm, to appear, *Journal of Machine Learning Research*, 2008.
2. Z. Ma, Z. Jane Wang, and M. McKeown, “Probabilistic Boolean Network Modeling for Brain Connectivity Analysis in Parkinsons Disease, *IEEE Journal of Selected Topics in Signal Processing*, vol. 2, no. 6, Dec. 2008.
3. P. Qiu, Z. Jane Wang, K. J. Ray Liu and Z. Szabo, “An Activity-Subspace Approach for Input Function and Distribution Volume Estimation in PET Parametric Imaging ”, to appear, *IEEE Trans. on Information Technology in Biomedicine*, 2008.
4. J. Chiang, Z. Jane Wang, and M. McKeown, “A Time-varying Eigenspectrum/SVM Method for sEMG Classification of Reaching Movements, to appear, *IEEE Signal Processing Letters*, 2008.

5. J. Li, Z. Jane Wang, and M. McKeown, "Dynamic Bayesian Network Modelling of fMRI: A Comparison of Group Analysis Methods, *NeuroImage*, vol.41(2), pp. 398-407, June 2008.
6. J. Chiang, Z. Jane Wang, and M.J. McKeown, "A Hidden Markov, Multivariate Autoregressive (HMM-mAR) Network Framework for Analysis of Surface EMG (sEMG) Data, *IEEE Trans. on Signal Processing*, vol 56(8), pp. 4069-4081, 2008.
7. M. J. McKeown, J. Li, X. Huang, M. M. Lewis, S. Rhee, K.N. Young Truong, and Z. Jane Wang, "Local Linear Discriminant Analysis (LLDA) for group and region of interest (ROI)-based fMRI analysis", *NeuroImage*, vol. 37(3), p. 855-865, Sep. 2007.
8. A. Golikeri, P. Nasiopoulos, Z. Jane Wang, "An Improved Scalar Quantization-based Digital Video Watermarking Scheme for H.264/AVC", *Journal of Electronic Imaging*, vol. 16, issue 4, 043008, Dec. 2007.
9. J. Li, Z. Jane Wang, J. Eng, and M.J. McKeown, "Bayesian Network Modeling for Discovering 'Dependent Synergies' among Muscles in Reaching Movements", *IEEE Transactions on Biomedical Engineering*, Vol.55(1), p. 298 - 310, Jan. 2008.
10. Peng Qiu, Z. Jane Wang, K. J. Ray Liu, Zhang-Zhi Hu, and Cathy H. Wu, "Dependence Network Modeling for Biomarker Identification", *Bioinformatics*, Vol. 23(2), p. 198-206, Jan. 2007.
11. Peng Qiu, Z. Jane Wang, and K. J. Ray Liu, "Model-Based Genomic/Proteomic Signal Processing for Cancer Classification and Prediction", *IEEE Signal Processing Magazine*, 24(1):100-110, 2007.
12. Z. Han, X. Liu, Z. Jane Wang, and K. J. Ray Liu, "Delay Sensitive Scheduling Scheme for Heterogeneous QoS over Wireless Networks", *IEEE transactions on wireless communications*, vol. 6, no. 2, pp. 423 - 428, Feb. 2007.
13. C. Pirak, Z. Jane Wang, and K. J. Ray Liu, and S. Jitapunkul , "Adaptive Channel Estimation Using A Pilot-Embedded Data-Bearing Approach for MIMO-OFDM Systems", *IEEE transactions on on Signal Processing*, vol. 54, no. 12, pp. 4706 - 4716, Dec. 2006.
14. P. Qiu, Z. Jane Wang, and K. J. Ray Liu, "Polynomial model approach for resynchronization analysis of cell-cycle gene expression data Resynchronization", *Bioinformatics*, vol. 22(8), pp. 959-966, 2006.
15. C. Pirak, Z. Jane Wang, and K. J. Ray Liu, "A Data-Bearing Approach for Pilot Embedding in Space-Time Coded MIMO Systems", to appear, *IEEE Trans. on Signal Processing*, vol. 54, no. 10, pp. 3966 - 3979, Oct. 2006.
16. M. McKeown, Z. Jane Wang, R. Abugharbieh, and T. Handy, "Getting more in less time: ICA Denoising Increases the Effect Size in Event-Related fMRI Studies", *IEEE Engineering in Medicine and Biology Magazine* (special issue on fMRI), vol. 25, no. 2, pp. 91-101, 2006.
17. Z. Wang, and P. Willett, "A Variable Threshold Page Procedure for Detection of Transient Signals", *IEEE Trans. on Signal Processing*, vol. 53, no. 11, pp. 4397-4402, Nov. 2005.
18. P. Qiu, Z. Jane Wang, and K. J. Ray Liu, "Ensemble Dependence Model for Classification and Prediction of Cancer and Normal Patterns Using Gene Expression Data", *Bioinformatics*, vol. 21(14), pp. 3114-3121, 2005.

19. Z. Jane Wang, Z. Szabo, P. Lei, J. Varga, and K. J. Ray Liu, "A Pixel Domain Framework for Quantification of Brain Receptor PET Studies", *IEEE Trans. on Signal Processing* (special issue on brain imaging), vol. 53, no. 9, pp. 3473-3487, Sep. 2005.
20. Z. Jane Wang, Z. Han, and K. J. Ray Liu, "A TOA-Based MIMO-OFDM Channel Estimation Approach", *IEEE Trans. on Wireless Communications*, vol. 4, no. 3, pp. 1207-1213, 2005.
21. Z. J. Wang, M. Wu, H. Zhao, W. Trappe, and K.J.R. Liu, "Anti-collusion forensics of multimedia fingerprinting using orthogonal modulation," *IEEE Trans. on Image Proc.*, vol. 14, pp. 804-821, 2005.
22. H. Zhao, M. Wu, Z. Jane Wang and K. J. Ray Liu, "Forensic analysis of nonlinear collusion attacks for multimedia fingerprinting", *IEEE Trans. on Image Processing*, vol. 14, Issue 5, pp. 646-661, May 2005.
23. Z. Jane Wang, M. Wu, W. Trappe, and K. J. Ray Liu, "Group-Oriented Fingerprinting for Multimedia Forensics", *EURASIP Journal on Applied Signal Processing* (special issue on Multimedia Security and Rights Management), vol.14, pp. 2153-2173, 2004.
24. M. Wu, W. Trappe, Z. Jane Wang, and K. J. Ray Liu, "Review paper: Collusion Resistant Fingerprinting for Multimedia", *IEEE Signal Processing Magazine*, vol. 21, no. 2, pp. 15-27, 2004.
25. W. Trappe, M. Wu, Z. Jane Wang and K. J. Ray Liu, "Anti-Collusion Fingerprinting for Multimedia", *IEEE Trans. on Signal Processing*, Special issue on Signal Processing for Data Hiding in Digital Media & Secure Content Delivery, vol. 51, no. 4, pp.1069-1087, Apr. 2003.
26. Z. Wang, A. Sinha, P. Willett and Y. Bar-Shalom, "Angle Estimation for Two Unresolved Targets with Monopulse Radar", *IEEE Trans. on Aerospace and Electronic System*, vol. 40, no. 3, pp. 998-1019, 2004.
27. Z. Wang, and P. Willett, "Joint Segmentation And Classification of Time Series Using Class-Specific Features", *IEEE Trans. on Systems, Man, and Cybernetics (SMC)*, vol. 34, no. 2, pp. 1056-1067, 2004.
28. Z. Wang, and P. Willett, "Two Algorithms to Segment White Gaussian Data with Piecewise Constant Variances ", *IEEE Trans. on Signal Processing*, vol. 51, no. 2, pp. 373-385, Feb. 2003.
29. Z. Wang, P. Willett, and R. Streit, "Detection of Long-Duration Narrowband Processes", *IEEE Trans. on Aerospace and Electronic System*, vol. 38, no.1, pp. 211-227, Jan. 2002.
30. Z. Wang and P. Willett, "All-Purpose and Plug-In Power-Law Detectors for Transient Signals", *IEEE Trans. on Signal Processing*, vol. 49, no. 11, pp. 2454-2466, Nov. 2001.
31. Z. Wang, P. Willett, P. DeAguiar, and J. Webster, "Neural Network Detection of Grinding Burn from Acoustic Emission", *International Journal of Machine Tools & Manufacture*, vol. 41, pp. 283-309, 2001.
32. Z. Wang and P. Willett, "A Performance Study of Some Transient Detectors", *IEEE Trans. On Signal Processing*, vol. 48, no. 9, pp. 2683-85, Sep., 2000.
33. Z. Wang, P. Willett, J. Webster, and P. DeAguiar, "Improved Wheel/Workpiece Contact Detection during Grinding via AE", *Abrasives Magazine*, pp7-13, June/July, 1999.

Conference Publications

1. Xudong Lv and Z. Jane Wang, “Fast Johnson-Lindenstrauss Transform for Robust and Secure Image Hashing, Proc. of IEEE MMSP 2008.
2. Z. Ma and Z. Jane Wang, “Dynamic Analysis of Probabilistic Boolean Network for fMRI Study in Parkinson’s Disease, Proc. of the 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC2008).
3. J. Chiang, Z. Jane Wang, and M. McKeown, “Study of Stroke Condition and Hand Dominance using A Hidden Markov, Multivariate Autoregressive (HMM-mAR) Network Framework, Proc. of EMBC2008.
4. J. Li, Z. Jane Wang, and M. McKeown, “Learning Brain Connectivity with the False-Discovery-Rate-Controlled PC-Algorithm, Proc. of EMBC2008.
5. Z. Ma and Z. Jane Wang, and Martin J McKeown, “Probabilistic Boolean Network for Inferring Brain Connectivity using fMRI Data, Proc. of 2008 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP08), Las Vegas, USA, Apr. 2008.
6. J. Li, Z. Jane Wang and M. McKeown, “Controlling the False Discovery Rate in Modeling Brain Functional Connectivity, Proc. of ICASSP08.
7. Pamela Lee, Z. Jane Wang and Martin J. McKeown, “Mutual Information based Relevance Network Analysis: A Parkinson’s Disease Study, Proc. of ICASSP08.
8. Pamela Lee, Z. Jane Wang , and M. McKeown, “Spectral Clustering of fMRI Data within Regions of Interest: Clarification of L-dopa effects in Parkinsons Disease, Proc. of the 29th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC2007).
9. J. Chiang, Z. Jane Wang, and M. McKeown, “Hidden Markov Multivariate Autoregressive (HMM-mAR) Modeling Framework for Surface Electromyography (sEMG) Data, Proc. of EMBC2007.
10. J. Li, Z. Jane Wang, and M. McKeown, “A Framework for Group Analysis of fMRI Data using Dynamic Bayesian Networks, Proc. of EMBC2007.
11. Z. Jane Wang and M. McKeown, “Relevance network modeling for muscle association pattern in reaching movements”, to appear, Proc. of 2007 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP07).
12. M. McKeown, J. Li, and Z. Jane Wang, “Local Linear Discriminant Analysis (LLDA) for Inference of Multi-Subject fMRI Data”, to appear, Proc. of ICASSP07.
13. J. Li, Z. Jane Wang, and M. McKeown, “A Multi-Subject, Dynamic Bayesian Networks (DBNs) Framework for Brain Effective Connectivity”, to appear, Proc. of ICASSP07.
14. P. Qiu, Z. Jane Wang, and K. J. Ray Liu, “Dependence Model and Network for Biomarker Identification and Cancer Classification”, special session, the 2006 European Signal Processing Conference (EUSIPCO2006).
15. Z. Jane Wang and M. McKeown, “Relevance Network Modeling for Discovering ‘Synergy Associations’ among Muscles in Reaching Movements”, the 29th Conference of the Canadian Medical and Biological Engineering Society (CMBEC29), Vancouver, 2006.

16. J. Chiang, Z. Jane Wang, and M. McKeown, "Hidden Markov Multivariate Autoregressive (HMM-mAR) Modeling of Dynamic Muscle Association Patterns in Reaching Movements", CMBEC29, 2006.
17. M. McKeown and Z. Jane Wang, "Entropy Considerations in Reaching Movements", CMBEC29, 2006.
18. A. Golikeri, P. Nasiopoulos, Z. Jane Wang, "An Improved Scalar Quantization-based Digital Video Watermarking Scheme for H.264/AVC", accepted by 2006 IEEE International Symposium on Circuits and Systems (ISCAS 2006).
19. J. Li, Z. Jane Wang, and M. McKeown, "Dynamic Bayesian Networks (DBNs) Demonstrate Impaired Brain Connectivity During Performance of Simultaneous Movements in Parkinson's Disease", accepted by 2006 IEEE International Symposium on Biomedical Imaging (ISBI06).
20. P. Qiu, Z. Jane Wang, and K.J. Ray Liu, "Mixture Principal Component Analysis for Distribution Volume Parametric Imaging in Brain PET Studies", accepted by ISBI06.
21. J. Chiang, Z. Jane Wang, and M. McKeown, "A Time-varying Eigenspectrum/SVM Method for sEMG Classification of Reaching Movements in Healthy and Stroke Subjects", accepted by 2006 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP06).
22. J. Li, Z. Jane Wang, and M. McKeown, "Bayesian Network Modeling for Discovering 'Directed Synergies' among Muscles in Reaching Movements", accepted by IEEE ICASSP06.
23. C. Pirak, Z. Jane Wang, K. J. Ray Liu and S. Jitapunkul, "Optimum Power Allocation for Maximum-Likelihood Channel Estimation in Space-Time Coded MIMO Systems", accepted by IEEE ICASSP06.
24. C. Pirak, Z. Jane Wang, and K. J. Ray Liu, "An Adaptive Protocol for Cooperative Communications Achieving Asymptotic Minimum Symbol-Error-Rate", accepted by IEEE ICASSP06.
25. C. Pirak, Z. Jane Wang, K. J. Ray Liu, and S. Jitapunkul, "A data-bearing approach for pilot-aiding in space-time coded MIMO systems, to be published in Proceeding of 63rd IEEE Vehicular Technology Conference 2006 (VTC2006-Spring), Australia, May 2006.
26. C. Pirak, Z. Jane Wang, K. J. Ray Liu, and S. Jitapunkul, "Adaptive pilot-embedded data-bearing approach channel estimation in space-frequency coded MIMO-OFDM systems, to be published in Proceeding of VTC2006-Spring, Australia, May 2006.
27. C. Pirak, Z. Jane Wang, K. J. Ray Liu, and S. Jitapunkul, "LS FFT-based channel estimators using pilot-embedded data-bearing approach in space-frequency coded MIMO-OFDM systems, to be published in Proceeding of IEEE Wireless Communications & Networking Conference 2006, April 2006.
28. Z. Jane Wang, P. Qiu, K. J. Ray Liu, and Z. Szabo, "Model-Based Receptor Quantization Analysis for PET Parametric Imaging", Proc. of the 2005 IEEE Engineering in Medicine and Biology 27th Annual Conference (EMBC05), Shanghai, China, Sep. 1-4, 2005.
29. M. McKeown, Y. J. Hu, and Z. Jane Wang, "ICA Denoising for Event-Related fMRI Studies", Proc. of the 2005 IEEE Engineering in Medicine and Biology 27th Annual Conference (EMBC05), Shanghai, China, Sep. 2005.

30. P. Qiu, Z. Jane Wang, and K. J. Ray Liu, "Tracking the Herd: Resynchronization Analysis of Cell-Cycle Gene Expression Data in *Saccharomyces Cerevisiae*", Proc. of the 2005 IEEE Engineering in Medicine and Biology 27th Annual Conference (EMBC05), Shanghai, China, Sep. 2005.
31. P. Qiu, Z. Jang Wang, and K.J.R. Liu, "Dependence-model based cancer classification using gene microarray data, Proc. of IEEE Workshop on Genomic Signal Processing and Statistics (GEN-SIP)05, Newport, US, May 2005.
32. C. Pirak, Z. Jane Wang, K. J. Ray Liu and S. Jitapunkul, "Performance Analysis for Pilot-Embedded Data-Bearing Approach in Space-Time Coded MIMO Systems", IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Mar. 2005.
33. Z. Jane Wang, Z. Han, K. J. Ray Liu, and Y. Wang, "Simultaneous Estimation of Kinetic Parameters and the Input Function from DCE-MRI Data: Theory and Simulation", Proc. 2004 IEEE International Symposium on Biomedical Imaging, Apr. 2004.
34. Z. Jane Wang, Z. Szabo, Z. Han, J. Varga, and K. J. Ray Liu, "A Likelihood-Based Framework for Quantification of Brain Receptor PET Studies in The Pixel Domain", Proc. 2004 IEEE International Symposium on Biomedical Imaging, Apr. 2004.
35. Z. Jane Wang, J. Chen, and K. J. Ray Liu, "Modeling of Genetic Regulatory Networks by Incorporating Genomic Data Sources", Proc. of the Workshop on Genomic Signal Processing and Statistics (GENSIPS2004), May 2004.
36. J. Chen, Z. Jane Wang, and K. J. Ray Liu, "Carbon Nanotube-Based Nanoprobe Design for Real-Time DNA Sequencing", Proc. of the Workshop on Genomic Signal Processing and Statistics (GENSIPS2004), May 2004.
37. M. Wu, W. Trappe, Z. Jane Wang, and K.J. Ray Liu, "Collusion-Resistant Fingerprinting for Multimedia: A Unified Framework", Proc. SPIE conference on Security, Steganography, and Watermarking of Multimedia Contents, Jan. 2004.
38. Z. Jane Wang, J. Chen and K. J. Ray Liu, "Linear Stochastic Modelling for Genetic Regulatory Networks", Proc. NIH conference on Digital Biology: The Emerging Paradigm, Bethesda, MD, Nov.6-Nov.7, 2003.
39. Z. Jane Wang, Z. Han and K. J. Ray Liu, "Blind Estimation of Kinetic Parameters and Input Function for Tumor Vascularity Imaging with DCE-MRI", Proc. NIH conference on Digital Biology: The Emerging Paradigm, Bethesda, MD, Nov.6-Nov.7, 2003.
40. Z. Jane Wang, Z. Han and K. J. Ray Liu, "MIMO-OFDM Channel Estimation via Probabilistic Data Association Based TOA Estimation", to appear, Proc. IEEE 2003 Global Communications Conference, San Francisco, CA, Dec. 2003.
41. Z. Han, Z. Jane Wang and K. J. Ray Liu, "Resource Allocation Framework with Credit System and User Autonomy Over Heterogeneous Wireless Networks", to appear, Proc. IEEE 2003 Global Communications Conference, San Francisco, CA, Dec. 2003.
42. Z. Jane Wang, M. Wu, W. Trappe, and K. Ray Liu, "Anti-Collusion of Group-Oriented Fingerprinting", Proc. International Conference on Multimedia and Expo (ICME), vol. 2, pp. 217-220, July 2003.

43. H. Zhao, M. Wu, Z. Jane Wang, and K. J. Ray Liu, "Performance of Detection Statistics under Collusion Attacks on Independent Multimedia Fingerprints", Proc. International Conference on Multimedia and Expo (ICME), vol. 1, pp. 205-208, Baltimore, July 2003.
44. Z. Jane Wang, M. Wu, H. Zhao, W. Trappe, and K. Ray Liu, "Resistance of Orthogonal Gaussian Fingerprints to Collusion Attacks", Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), vol. 4, pp. 724-727, Hong Kong, Apr. 2003.
45. Z. Wang and P. Willett, "The VTP Test for Transients of Equal Detectability", Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), vol. 5, pp. 273-276, Hong Kong, Apr. 2003.
46. H. Zhao, M. Wu, Z. Jane Wang, and K. J. Ray Liu, "Nonlinear Collusion Attacks on Independent Fingerprints for Multimedia", Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), vol. 5, pp. 664-667, Hong Kong, Apr. 2003.
47. Z. Jane Wang, P. Willett and P. Baggenstoss, "Class-Specific Segmentation of Time Series", Proc. of IEEE Aerospace Conference, Mar. 2003.
48. Z. Jane Wang, P. Willett, "Fast and Accurate Variance-Segmentation of White Gaussian Data", Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), vol. 2, pp. 1577-1580, Orlando, May 2002.
49. Z. Wang, P. Willett, W. Blair and Y. Bar-Shalom, "High-Resolution Radar Ranging for Multiple Targets", Proc. of the 2002 SPIE Aerosense Conference on Signal and Data Processing of Small Targets, Apr. 2002.
50. Z. Wang and P. Willett, "Improved Power-Law Detection of Transients", Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Salt Lake city, May 2001.
51. Z. Wang and P. Willett, "Wavelets in the Frequency Domain for Narrowband Process Detection", Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Salt Lake city, May 2001.
52. Z. Wang and P. Willett, "Improved Power-Law Detectors for Transients", Proc. 2000 Conference on Information Sciences and Systems, Vol. I, TA1-13, Princeton University, Mar. 15-17, 2000.
53. Z. Wang, and P. DeAguiar, "Wheel/Workpiece Contact Detection During Grinding Process by AE Signal", Proc. the 15th Brazilian Congress of Mechanical Engineering, Aguas de Lindoia, Sao Paulo State, Brazil, Nov., 1999.
54. P. DeAguiar, P. Willett, Z. Wang and J. Webster, "Workpiece Burn Detection During Grinding by Acoustic Emission", Proc. the 15th Brazilian Congress of Mechanical Engineering, Aguas de Lindoia, Sao Paulo State, Brazil, Nov., 1999.