

Graduated PhD Students Supervised by R.M. Gray  
With most recent known position.  
Last modified 8/7/2015

1. Dr. Barry Leiner, "Rate distortion theory for sources with side information," September 1973, RIACS. Deceased.
2. Professor William Pearlman, "Source coding of the discrete Fourier transform," June 1974, RPI, retired.
3. Professor David Neuhoff, "Source coding and distance measures on random processes," August 1974, University of Michigan.
4. Professor James Dunham, Southern Methodist University "Joint source and noisy channel trellis encoding," June 1978
5. Dr. Yoseph Linde, "The design of tree and trellis data compression systems," 1978, Jerusalem Ventures.
6. Professor Yasuo Matsuyama, "Process distortion measures and signal processing," July, 1978, Waseda University, Japan.
7. Professor Andres Buzo, "Optimal vector quantization for linear predicted coded speech," September 1978, National Autonomous University of Mexico.
8. Dr. Robert Fontana, "A class of composite sources and their ergodic and information theoretic properties," September 1978, Consultant.
9. Dr. Guillermo Rebolledo-Cortizo, "Speech and waveform coding based on vector quantization," December 1981, Kb/TEL Telecomunicaciones, Mexico.
10. Dr. Larry Stewart, "Trellis data compression," June 1981, Chief Technology Officer, Serissa Research.
11. Dr. Farivar Saadat, "Block source coding theory for asymptotically mean stationary sources," June 1983. Deceased.
12. Professor John Foster, "Finite-state vector quantization for waveform coding," December 1982, Tuskegee University.
13. Dr. Rich Baker, "Vector quantization of digital images," September 1983. startup
14. Dr. Michael Sabin, "Global convergence and empirical consistency of the generalized Lloyd algorithm," June 1984, Consultant
15. Professor Mari Ostendorf (Dunham), "Finite-state vector quantization for low rate speech coding," March 1985. University of Washington
16. Dr. Tom Flynn, "Quantizer design for distributed sensing," March 1985. Sandia
17. Dr. Chieh Tsao, "Matrix quantization of LPC speech using the generalized Lloyd algorithm," July 1985, deceased
18. Prof. Pao Chi Chang, "Predictive, hierarchical, and transform vector quantization for speech coding," June 1986, National Central University, Taiwan
19. Prof. Ender Ayanoglu, "Trellis encoding for sources and channels," September 1986, University of California at Irvine
20. Dr. Shan-Shan Huang, "Spellmode recognition based on vector quantization," March 1987, DSP Inc.

21. Dr. Phil Chou, "Applications of information theory to pattern recognition and the design of decision trees and trellises," June 1988. Microsoft Research Inc.
22. Professor Tom Lookabaugh, "Variable rate and adaptive frequency domain vector quantization of speech," June 1988, University of Colorado
23. Dr. Ping-Wah Wong, "Oversampled sigma-delta modulation: Analysis and applications," June 1989
24. Professor Eve Riskin, "Variable rate vector quantization of images," June 1990. University of Washington, Seattle
25. Dr. Wu Chou, "Theory and analysis of oversampled analog-to-digital conversion," June 1990, formerly AT&T Bell Laboratories, Murray Hill
26. Professor Sang Ju Park, "Topics in analog-to-digital conversion," September 1991, Hongik University, Seoul, Korea
27. Dr. Karen Oehler, "Image compression and classification using vector quantization," September 1993
28. Prof. Pamela Cosman, "Perceptual aspects of vector quantization," June 1993, Prof, EE University of California, San Diego
29. Prof. Michelle Effros, "Universal and adaptive source coding: theory and practice," EE Cal Tech, 1994
30. Prof. Sheila Hemami, "Reconstruction of compressed images and video for lossy packet networks," December 1994, Professor and Chair, ECE, Northeastern University
31. Dr. Sharon Perlmutter, "Image compression using vector quantization: algorithms and quality evaluation," December 1995.
32. Dr. Keren Perlmutter, "Compression and classification of images using vector quantization and decision trees," December 1995.
33. Dr. Rick Vander Kam, "Lossy data compression methods for halftoned and printed images," December 1995. Polycom Inc.
34. Dr. Earl Levine, "Stochastic vector quantization using neural networks," June 1996, Voicestream
35. Dr. Barry Andrews, "Quantization and motion compensation for image and video compression," September 1995 8x8
36. Professor Jia Li, "Image classification and compression based on a two dimensional multiresolution hidden Markov model," June 1998, Statistics Dept, Penn State University
37. Dr. Bradley J. Betts, "A statistical analysis of digital mammography," December 1999, NASA-Ames.
38. Dr. Amir Najmi, "Data compression, model selection and statistical inference," December 2000, Google
39. Dr. Sanjeev Mehrotra, "Multiple description coding using overcomplete linear expansions," June 2000, Microsoft
40. Dr. Ken K. Lin, "Wavelet video coding with dependent optimization," June 2001, Apple
41. Dr. Anuradha Aiyyer, "Robust image compression using Gauss mixture models," June 2001.
42. Dr. Xin Tong, "Compression and rendering of light fields," June 2002, Apple.

43. Dr. Remco Teunen, "Acoustic Modeling For Automatic Speech Recognition: Deriving Discriminative Gaussian Networks," August 2002, Google.
44. Dr. John C. Young, "Clustered Gauss mixture models for image retrieval," March 2003. Deceased
45. Prof. Maya Gupta, "An information theory approach to supervised learning," March 2003, Google.
46. Dr. Kyungsuk (Peter) Pyun, "Classification and Segmentation of Images using Hidden Markov Gauss Mixture Models," June 2003, Samsung
47. Dr. Vincent Vanhouke, "Mixtures of inverse covariances: covariance modeling for Gaussian mixtures with applications to automatic speech recognition," December 2003. Google
48. Dr. Sangoh Jeong, "Category-adaptive color image retrieval based on Lloyd-clustered Gauss Mixtures," LGI, June 2006
49. Dr. Deirdre Bernadette O'Brien Robinson, "Cost-sensitive performance of probability estimation-based classifiers: analysis and practice," June 2006, Google
50. Dr. Kivanc Ozonat, "Gauss mixture image classification for distributed sensor networks," December 2006, Hewlett Packard.
51. Dr. Sangho Yoon, April 2008, "Clustering with model selection and its application to genetics," Google
52. Dr. Luciana Ferrer, "Statistical modeling of heterogeneous features for speech processing tasks," March 2009, SRI International.
53. Dr. Mario Parente, "Unsupervised unmixing of hyperspectral images: imaging the Martian surface," June 2010, University of Massachusetts, Amherst
54. Dr. Mark Mao, "On asymptotically optimal source coding and simulation of stationary sources," June 2011, Google
55. Prof. Michelle Hewlett Sanchez, "Nuisance Compensation and Prosodic Modeling on high-level Speech Tasks," December 2011, Tulane University
56. Dr. Stephanie Pancoast, "Tiered representations for audio-based multimedia and speech retrieval," September 2015, Airbnb