

Computer vision specialist to present first Jim Press Endowed Lecture in Statistics at UCR

A scientist who is developing computational models to represent how we perceive images and other activities of the nervous system will be speaking at the University of California, Riverside.

Stuart Geman, who is the James Manning Professor of Applied Mathematics at Brown University, will be presenting the First Distinguished Professor S. James Press Endowed Lecture in the Department of Statistics at UCR, entitled "Generative Models for Image Understanding," on April 10 at 3:45 p.m. in 205 Engineering Building 2. A reception will follow at 5:00 p.m.

Professor Geman asks, "What are the basic principles of representation and computation in the nervous system? Cognitive scientists have argued for a theory based upon *compositionality*. Compositionality refers to the ability of humans to represent [images] as hierarchies of reusable parts. The parts themselves are meaningful entities and are reusable in a near-infinite assortment of meaningful combinations. I am studying a mathematical formulation for compositionality, and the implications of this formulation for interpreting neural activity patterns and for building computer vision systems."

It is no surprise that Professor Geman is interested in a field involving the nervous system. Following graduation from the University of Michigan with a bachelor's degree in physics, he attended medical school at Dartmouth for a year and then took a master's degree in physiology there before entering MIT's Department of Applied Mathematics, where he received his Ph.D. in 1977. He has retained interests in physical, biological, statistical, mathematical, and computational sciences throughout his distinguished career. His research directions include compositional vision, neural representation, and neural modeling.

It was also in 1977 that Professor S. James Press joined the UCR faculty as chair of the Department of Statistics. Professor Press spent 28 years at UCR teaching and conducting research in Bayesian analysis, multivariate analysis, and cognitive aspects of survey methodology. He was named a Distinguished Professor of UCR. Upon Professor Press's retirement in 2005, his family, friends, colleagues, and students created the Distinguished Professor S. James Press Lecture Fund to bring to the UCR campus each year a speaker on a topic in emerging new areas of statistics with the dream of creating an environment of intense high quality research activities in statistics at UCR.