



Spring 2009 CIS Colloquium Series

Modeling statistics of photographic images

Siwei Lyu

(State University of New York – Albany)

12pm-1pm, Wednesday, April 22, 2009

Abstract: Photographic images distinguish from the rest of image space with their statistical regularities. Such statistical regularities are best revealed in the wavelet domain. In this talk, I will discuss two approaches to build mathematical models capturing these statistical regularities of photographic images in the wavelet domain, one being a multi-dimensional image feature vector consisting of wavelet statistics, and the other being a full probabilistic model of wavelet sub-band. I will show the applications of these models to problems in digital image forensics and low-level computer vision.

Bio: Dr. Siwei Lyu received his B.S. degree in Information Science in 1997 and his M.S. degree in Computer Science in 2000, both from Peking University, China, and his Ph.D. degree in Computer Science from Dartmouth College, in 2005. From 2000 to 2001, he worked at Microsoft Research Asia as an assistant researcher, and from 2005 to 2007 he was a post-doctoral research associate at New York University. He is currently an assistant professor in computer science at State University of New York, Albany. His research interests include image processing and forensics, computer vision and machine learning.

Location: 4th Floor Conference Room (Wachman 447)

Time: 12pm-1pm, Wednesday, April 15, 2009

Refreshments will be served!