JOHNS HOPKINS
BIOMEDICAL ENGINEERING

Monday May 11, 2009, 1:00 PM, Clark 110-Rome Room
Light lunch will be provided at 12:15 in Clark 110

Computer Vision of Cellular Life

Gaudenz Danuser, PhD

Laboratory for Computational Cell Biology (LCCB)
The Scripps Research Institute
La Jolla

Hosted by Dr. Rene Vidal

Computer Vision is rapidly becoming the key to any quantitative, image-based study of cellular functions, from cell morphogenesis to signaling. Critical aspects of computer vision applications include automation; multiplexing; inference of physiological parameters not directly seen in the image; damming user-driven data selection, a notorious plague in hypothesis-driven investigations; and detection of rare, but physiologically relevant image events. I will give an overview of work in my lab where we have made contributions to answering central questions in cell biology by developing computer vision tools for the rigorous analysis of live-cell image data.

Biographical Sketch:
Gaudenz Danuser has a Ph.D. in Computer Vision from ETH Zurich. He did is postdoctoral work in the Program for the Architectural Dynamics in Living Cells directed by Shinya Inoué at Woods Hole. 2000 - 2003 he was an Assistant Professor for Cell Biomechanics at ETH and then joined the Department of Cell Biology at The Scripps Research Institute at La Jolla. His lab works on computational and experimental methods for quantitative live cell microscopy to study morphogenic pathways in cell migration, cell division and vesicle transport. He is an appointed member of the NIH review panel for microscopic imaging.

For more information call 410-516-3826