

IEEE
ENGINEERING IN
MEDICINE AND
BIOLOGY

Tuesday, April 29th,
2008

Hosted by: IEEE, SFO



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.



San Francisco Chapter Presents:

"Graph Theoretical Methods for Network-level Connectivity Analysis of Brain Networks"

DATE & TIMES:

*Tuesday, April 29th
No-host bar at 6:00 PM
Dinner at 7:00
Presentation at 7:30*

PLACE:

*Sinbad's Restaurant
Pier 2 Embarcadero St.,
San Francisco, CA 94111
www.sinbadsrestaurant.com*

COST: (includes dinner)

*\$10 students
\$15 members,
\$25 non-member.*

**RSVP by April 25th
to Bob Giebeler at
b.giebeler@ieee.org
For more information:
415-252-7214**

Our presenter, Dr. Ashish Raj will discuss new advances in brain MRI that provide the ability to non-invasively probe the structural connectivity of the brain. This talk will describe several ways of obtaining the connectivity network of the human brain using MRI data. Networks from MRI structural (MPRAGE) as well as diffusion (DTI, HARDI) data will be described. Additionally, several graph-theoretic methods for analyzing this data will be presented. Preliminary data from Raj's lab and other examples from recent literature will be presented. Presented evidence indicates the promise of network-level analysis for diagnosis and classification of brain disease states.

Dr. Raj earned Bachelors in Electrical Engineering from the University of Auckland, New Zealand, and Ph.D. in Electrical and Computer Engineering from Cornell University, NY, USA. At Cornell he specialized in signal processing and wrote his dissertation on new computational algorithms for MR imaging, working closely with the department of radiology at Weill-Cornell Medical College in New York. This work led to the development of new techniques for reconstructing and processing MR images using prior or redundant information. After graduating in December 2004, he joined the Centre for Imaging of Neurodegenerative Diseases and the Department of Radiology at UCSF, where he is Assistant Professor.

Dr. Catherine Klifa, UCSF, Program Organizer