

# Sensor, Signal & Information Processing (SenSIP) Cluster

Fulton School of Engineering, ASU - <http://enpub.fulton.asu.edu/sensip/>

Cordially invites you to attend a workshop on

## New Applications of Signal Processing in Magnetic Resonance Imaging (MRI)

28<sup>th</sup> April-2006, 8AM-4PM

Computing Commons, CC120, Arizona State University, Tempe, USA

Registration is FREE but required. E-mail: [Cynthia.Moayedpardazi@asu.edu](mailto:Cynthia.Moayedpardazi@asu.edu)  
Abstracts & more information available at <http://enpub.fulton.asu.edu/sensip/mri>

### Workshop Program:

#### Morning Session, Chair - Jim Pipe

- 08:00 am Light Continental Breakfast & Coffee
- 08:30 am Welcome - Opening Remarks by Douglas Cochran
- 09:00 am MRI fundamentals by Jim Pipe
- 09:30 am Maria Altbach, University of Arizona, "*Parametric Imaging with Radial MRI*"
- 10:00 am Roland Bammer, Stanford University, "*Parallel Imaging in MRI*"
- 10:30 am Coffee Break
- 10:45 am Krishna Nayak, University of Southern California, "*Real-time Cardiac Imaging*"
- 11:15 am Sean Fain, University of Wisconsin-Madison, "*Measuring Organ Function using MRI*"
- 11:45 pm Eric Wong, University of California-San Diego, "*Current Methods in Arterial Spin Labeling*"
- 12:15 pm Lunch Break

#### Afternoon Session, Chair - Andreas Spanias

- 13:30 pm Shannon Hughes, Princeton University, "*Using Manifold Learning Algorithms to Uncover the Brain's Cognition Structure*"
- 14:00 pm Leigh Johnston, University of Melbourne, "*Statistical Signal Processing Techniques for Structural and Functional MRI Analyses*"
- Short talks by local speakers on ASU capabilities:
- 14:30 pm Jim Pipe, Barrow Neurological Institute-Phoenix & ASU, "*Advances in MRI: Improving Data Collection and Reconstruction*"
- 14:45 pm Ranu Jung, Arizona State University, "*SAIF-A new Small Animal Imaging Facility at ASU*"
- 15:00 pm Rosemary Renaut, Arizona State University, "*MR/PET Imaging Research Activities in Mathematics*"
- 15:15 pm Andreas Spanias, Arizona State University, "*Capabilities of the ASU Signal Processing and Communications Group*"
- 15:30 pm Closing Remarks by Jim Pipe
- 15:45 pm End of Workshop - Adjourn

### Sponsored by:

1. Barrow Neurological Institute
2. ASU SenSIP Cluster
3. ASU Electrical Engineering
4. ASU Fulton School of Engineering

### Organizing Committee:

Workshop Chair: Jim Pipe, Barrow Neurological Institute and ASU  
Workshop Vice Chair: Andreas Spanias, ASU  
Organizers: Andreas Spanias & Antonia Papandreou-Suppappola, ASU  
Local Arrangements: Cynthia Moayedpardazi, ASU  
Website & Flyer: Ravi Kanth Reddy Chilumula  
Students: Ravi Kanth Reddy Chilumula, Ahmad Ababnah, Lakshminarayan Ravichandran