

## Solid-State and Photonics Initiative Workshop

### Imaging Sensors, Modalities, and Algorithms: Toward Medical, Industrial, Science, and Homeland Security Applications

December 7th, 2010

Ford Building (2113 Sheridan Rd, Evanston), Second Floor - ITW room.

Time	Speaker - Event	Title of the Talk	Affiliation
8:30 am - 9:00 am	<b>Light breakfast &amp; refreshments</b>	Live IR Camera Demo from CQD (Manijeh Razeghi)	
9:00 am - 9:10 am	Hooman Mohseni	Introduction: SSPI and the Imaging Workshop Program	McCormick, NU
<b>Theme I: UV-Visible-IR</b>			
9:15 am - 9:30 am	Manijeh Razeghi	Semiconductor Imagers from UV to THz	McCormick, NU
9:30 am - 9:45 am	Venkat Chandrasekhar	Scanning probe microscopy using a tuning fork transducer	Weinberg, NU
9:45 am - 10 am	Lincoln Lauhon	Frontiers of Imaging: Visualizing Nanoscale Form and Function	McCormick, NU
10 am - 10:15 am	Prem Kumar	Quantum Imaging: Methods and Applications	McCormick, NU
10:15 am - 10:30 am	Cheng Sun	Optical Imaging Beyond the Diffraction Limit	McCormick, NU
10:30 am - 11 am	<b>Coffee Break</b>		
11 am - 11:15 am	Sridhar Krishnaswamy	Thermal and Photoacoustic Imaging for Materials Characterization	McCormick, NU
11:15 am - 11:30 am	Mercouri Kanatzidis	New Materials with Strong Second Harmonic Generation in the IR Region	Weinberg, NU
11:30 am - 11:45 am	Sasan Bakhtiari	Millimeter-wave Sensor Technology for Remote Monitoring Applications	Nuclear Eng., Argonne National Lab
<b>Theme II: MRI</b>			
11:45 am - 12 am	NavYash Gupta	Current Imaging Modalities for the Evaluation of Peripheral Vascular Disease	Division of Vascular Surgery, NorthShore University HealthSystem
12 am - 12:20 am	Julio Ottino	Keynote Address	Dean, McCormick School of Engineering
12:30 pm - 2 pm	<b>Lunch</b>	Allen Center	
<b>Theme II: MRI (Cont.)</b>			
2 pm - 2:15 pm	Todd Parrish	Neuroimaging methods applied to a better understanding of the brain	Feinberg, NU
2:15 pm - 2:30 pm	Aggelos Katsaggelos (S. Tsafaris)	Image and Video Processing at IVPL	McCormick, NU
2:30 pm - 2:45 pm	Andrew Larson	Intra-Procedural MRI-Monitoring of Liver-Directed Therapies for Hepatocellular Carcinoma	Feinberg, NU
2:45 pm - 3 pm	Dean Ho	Nanodiamonds as multifunctional therapeutic platforms	McCormick, NU
3 pm - 3:15 pm	Jack Tumblin	Interactive Ray-space Processing Methods can Create Novel Appearance	McCormick, NU
3:15 pm - 3:45 pm	<b>Coffee Break</b>		
<b>Theme III: X-ray</b>			
3:45 pm - 4 pm	David Nisius	X-ray Cargo Screening Technology and Applications	Varian Medical Systems
4 pm - 4:15 pm	Chris Jacobsen	X-ray imaging: sensors and algorithms for phase contrast, and algorithms for hyperspectral data	Weinberg, NU + APS, Argonne
4:15 pm - 4:30 pm	Klaus Attenkofer	Detector Developments at ANL	APS, Argonne National Lab
4:30 pm - 4:45 pm	Ronald Lipton	Intelligent Detectors in Particle Physics - Megapixels to Gigapixels	Fermi National Lab
4:45 pm - 5 pm	Antonino Miceli	Superconducting x-ray detectors	APS, Argonne National Lab
5 pm - 6 pm	<b>Working Group Breakout</b>		
6 pm - 6:30 pm	<b>Group Conclusions</b>		
6:30 pm - 8:30 pm	<b>Dinner</b>	Allen Center	