

# Invited Talks

## Anlage, S.M.

*Wave Chaos – Experimental Tests of the Random Coupling Model*, Applied Dynamics Seminar, University of Maryland (March 4, 2004).

*Low-Temperature Laser Scanning Microscopy of Electromagnetic Transport Properties and Nonlinearities in HTS Microwave Devices*, High Temperature Superconductors in High Frequency Fields, Begur, Spain (May 29, 2004).

*Microwave Nonlinearities and Spontaneous Time-Reversal Symmetry Breaking in Under-Doped  $YBa_2Cu_3O_{7-x}$* , High Temperature Superconductors in High Frequency Fields, Begur, Spain (May 27, 2004).

*Wave Chaos in Two-Dimensional Microwave Resonators*, Condensed Matter Seminar, University of Delaware (April 20, 2004).

*Chaos in Driven Diode and Electrostatic Discharge Protection Circuits*, European Electromagnetics Conference (EUROEM 2004), Magdeburg, Germany (July 14, 2004).

*Universal Impedance Statistics of Metallic Enclosures*, European Electromagnetics Conference (EUROEM 2004), Magdeburg, Germany (July 14, 2004).

*Wave Chaos Experiments – Universal Field, Impedance and S-Matrix Statistics of Metallic Enclosures*, MURI Program Review, Rockville, MD (October 23, 2004).

*Probing New Materials with the Near-Field Microwave Microscope*, Physics Colloquium, University of Delaware (October 13, 2004).

*Wave Chaotic Scattering Experiments in Microwave Billiards*, LINAC seminar, Institute of Nuclear Physics, Technical University of Darmstadt, Germany (May 24, 2005).

*Universal Impedance Fluctuations in Wave Chaotic Systems*, Institute of Physics, Polish Academy of Sciences, Warsaw, Poland (May 20, 2005).

*Novel Applications of Negatively Refracting Electromagnetic Materials*, RF Sensing Symposium, Naval Postgraduate School, Monterey, CA (May 4, 2005).

*Universal Field, Impedance, and S-Matrix Statistics of Metallic Enclosures*, 5-power Air Senior National Representative MOU on HPM Semi-Annual Meeting, Eglin Air Force Base, FL (February 16, 2005).

*Chaos in Driven Diode and Electrostatic Discharge Protection Circuits*, 5-power Air Senior National Representative MOU on HPM Semi-Annual Meeting, Eglin Air Force Base, FL (February 16, 2005).

### **Dagan, Y**

*Transport and Tunneling Properties of Electron-doped High- $T_c$  Superconductors*, Condensed Matter Seminar, Ben Gurion University, Beer Sheba, Israel (November 8, 2004).

*Transport and Tunneling Properties of Electron-doped High- $T_c$  Superconductors*, Condensed Matter Seminar, Technion, Haifa, Israel (November 9, 2004).

*Transport and Tunneling Properties of Electron-doped High- $T_c$  Superconductors*, Condensed Matter Seminar, Hebrew University, Jerusalem (November 11, 2004).

*Transport and Tunneling Properties of Electron-doped High- $T_c$  Superconductors*, Condensed Matter Seminar, Tel Aviv University, Israel (November 15, 2004).

*Transport and Tunneling Properties of Electron-doped High- $T_c$  Superconductors*, Condensed Matter Seminar, Bae Ilan University, Israel (November 18, 2004).

*Evidence for a Quantum Phase Transition in Electron-doped Cuprates*, The 5<sup>th</sup> Heinrich-Hertz Minerva Workshop on High Temperature Superconductivity, Kafar Hamaccabiah, Israel (May 8, 2005).

### **Dhar, S.**

*New/Improved Device and Processing Concepts for SiC power electronics using AlN passivation*, Collaborative Technology Alliance Meeting, Phoenix, AZ (January 13-14, 2005).

### **Drew, H.D.**

*IR Magneto Transport in the Cuprates*, University of Sherbrooke, Canada (November 10, 2004).

### **Fuhrer, M.**

*Conductance in One Dimension: Nanotubes and Molecules*, Condensed Matter Seminar, Department of Physics, University of Maryland, College Park, MD (September 2004).

*Nanotube Nanoelectronics*, Department of Materials Science & Engineering Seminar, Johns Hopkins University, Baltimore, MD (October 2004).

*Conductance in One Dimension: Nanotubes and Molecules*, NSEC Seminar, Columbia University, NY (December 2004).

*Near Perfect Conduction through a Single Molecular State*, Third International Workshop on Nanoscale Spectroscopy and Nanotechnology, University of Maryland, College Park, MD (December 2004).

*Conductance in One Dimension: Nanotubes and Molecules*, Condensed Matter Physics Seminar, Rice University, TX (January 2005).

**Greene, R.L.**

*Quantum Critical Point in Electron-doped Superconductors*, Gordon Research Conference on Superconductivity, Oxford, England (September 19-24, 2004).

*Recent Results on Electron-doped Cuprates*, Aspen Winter Conference on High Temperature Superconductivity, Aspen, Colorado (January 9-15, 2005).

*Evidence for Quantum Criticality in Electron-doped Cuprate Superconductors*, Condensed Matter Seminar, Laboratoire de Physique du Solide, ESPCI, Paris, France (May 31, 2005).

*Evidence for Quantum Criticality in Electron-doped Cuprate Superconductors*, Condensed Matter Seminar, Department of Physics, University of Geneva, Switzerland (June 2, 2005).

**Hullavard, S.S.**

*New/Improved Device and Processing Concepts for SiC Power Electronics Using AlN Passivation*, Collaborative Technology Alliance Meeting, Phoenix, AZ (January 13-14, 2005).

**Lobb, C.J.**

*Smaller, Faster, Cheaper: From Transistors to Artificial Microstructures*, University of Cincinnati, OH (September 2004).

*Macroscopic Quantum States in One/Two/Three Superconducting Qubits*, University of Cincinnati, OH (September 2004).

*When Are Superconductors Really Superconducting?*, Georgetown University, Washington DC (January 2005).

**Ogale, S.B.**

*Oxide Based Diluted Magnetic semiconductors: The real ones and the UFOs*, Tata Institute of Fundamental Research, Mumbai, India (May 26, 2005).

**Takeuchi, I.**

*Combinatorial Experimentation and Materials Informatics*, Materials Informatics Seminar, Tokyo Institute of Technology, Yokohama, Japan (August 5, 2004).

*Nanotechnology in U.S.*, Science Agency Program Review Meeting, Tokyo Institute of Technology, Yokohama, Japan (August 6, 2004).

*Combinatorial Investigation of Functional Thin Film Materials*, ITC-IRST, Trento, Italy (October 5, 2004).

*PbTiO<sub>3</sub>-CoFe<sub>2</sub>O<sub>4</sub> Multiferroic Nanocomposites*, MRS Fall Meeting, Boston, MA (November 30, 2004).

*Combinatorial Phase Mapping of Metallic Alloys and Materials Informatics*, 3<sup>rd</sup> Japan-U.S. Workshop on Combinatorial Material Science and Technology, Okinawa, Japan (December 8, 2004).

*Combinatorial Thin Film Methodology for Rapid Investigation of Complex Multifunctional Materials*, APS March Meeting, Los Angeles, CA (March 25, 2005).

*Combinatorial Thin Film Methodology for Rapid Investigation of Complex Multifunctional Materials*, UK Combinatorial Materials Science Workshop, Cambridge University, Cambridge, UK (March 4, 2005).

*Combinatorial Investigation of Ternary Alloy Systems Using Co-Sputtering*, International Symposium on Sputtering and Plasma Processes, Kanazawa, Japan (June 9, 2005).

### **Vispute, R.D.**

*New/Improved Device and Processing Concepts for SiC power electronics using AlN passivation*, Collaborative Technology Alliance Meeting, Phoenix, AZ (January 13-14, 2005).

### **Venkatesan, T.**

*Application of Pulsed Laser Deposition for Large Area Oxide Film Deposition*, ST Micro Electronics, Tours, France (March 16, 2004).

*Progress in Diluted Magnetic Semiconducting Oxides*, Physics Department Trinity College, Dublin, Ireland (May 17, 2004).

*Progress in Diluted Magnetic Semiconducting Oxides*, Electrical Engineering Department, University College, London, UK, (May 18, 2004).

*Advances in the Pulsed Laser Deposition of Multi-Component Oxide Films*, Institute of Optical Sciences, National Central University, Taiwan (July 12, 2004).

*Novel Magnetic Oxides for Spintronics*, Department of Physics, National Tsinghua University, Taiwan (July 12, 2004).

*Use of Scanning SQUID Microscopy for Semiconductor Failure Analysis*, Tutorial Lecture Organized by Neocera for Participants of Semicon, Shinchu, Taiwan, (July 13, 2004).

*MAGMA-Scanning SQUID Microscopy for Semiconductor FA*, An Example of Technology Transfer From Academia to Industry, IIT Madras, Chennai, India (September 1, 2004).

*Advances in the Pulsed Laser Deposition of Multi-Component Oxide Films*, Institute Seminar at the Institute of Physics, Chinese Academy of Sciences, Beijing, China (September 6, 2004).

*Advances in the Pulsed Laser Deposition of Multi-Component Oxide Films*, National Donghua University, Hualien, Taiwan (September 8, 2004).

*Advances in the Pulsed Laser Deposition of Multi-Component Oxide Films*, Electrical Engineering Department, National Taiwan University, Taipei ( September 9, 2004).

*Advances in the Pulsed Energy Deposition of Multi-Component Oxide Films*, University of Campinas, Brazil (September 28, 2004).

*Latest Developments in the Pulsed Energy Deposition of Multi-component Films*, Physics Colloquium, Caltech, Pasadena, CA (October 25, 2004).

*Latest Developments in the Pulsed Energy Deposition of Multi-component Films*, Physics Colloquium, University of California, Berkeley, CA (October 26, 2004)

*Progress in Diluted Magnetic Semiconducting Oxide Films*, Annual DARPA SpinTech Workshop, San Francisco, CA (October 27, 2004).

*Recent Advances in Pulsed Laser Deposition of Oxide Films*, Special Workshop on Pulsed Laser Deposition organized by Quantum Design Japan, Waseda University, Tokyo, Japan (November 26, 2004).

*Diluted Magnetic Oxide Semiconducting Films*, Special Workshop on Pulsed Laser Deposition organized by Quantum Design, Waseda University, Tokyo, Japan (November 26, 2004).

*Progress in Diluted Magnetic Semiconducting Oxides*, Physics Department, University of Zaragoza, Spain (January 2005).

*Pulsed Laser Deposition of Oxide Films - Challenges as a Cluster Tool Module*, Seagate Technology, Bloomington, Minnesota (January 19, 2005).

*Recent Advances in Pulsed Laser Deposition of Oxide Films*, Physics Colloquium, Brookhaven National Laboratory, Upton, NY (January 26, 2005).

*Recent Advances in the Pulsed Energy Deposition of Multi-component Oxide Films*, ICMAB, University of Barcelona, Spain (February 2, 2005).

*Adventures with Pulsed Laser Deposition-From Research to Commercialization*, Institute Seminar, IIT Delhi, India (February 24, 2005).

*Recent Advances in the Pulsed Energy Deposition of Multi-component Oxide Films*, Waseda University, Tokyo, Japan, (March 1, 2005).

*Recent Advances in Pulsed Laser Deposition of Oxide Films*, Mitsubishi Research Center, Tsukuba City, Japan (March 2, 2005).

*Recent Advances in Pulsed Laser Deposition of Oxide Films*, Panasonic Corporation, Osaka, Japan (March 3, 2005).

*Recent Advances in Pulsed Laser Deposition of Oxide Films*, Physics Colloquium, National Central University, Chungli, Taiwan (March 4, 2005).

*Pulsed Energy Deposition of Multi-Component Oxide Films*, Materials Science and Engineering Department, Carnegie Mellon University, Pittsburgh, PA (March 16, 2005).

*MAGMA-Scanning SQUID Microscope-A Case Study of Technology Transfer From Academia to Industry*, IIT Delhi, India (April, 14, 2005).

*Progress in Wide Band gap Oxides and Nitrides via Pulsed Laser Deposition for High Power Electronics*, Army Research Laboratory Review, University of Maryland, College Park (April 23, 2005).

*Recent Advances in the Pulsed Energy Deposition of Multi-component Oxide Films*, ISM- CNR, Area della Ricerca di Roma, Italy (April 19, 2005).

*Progress in Diluted Magnetic Semiconducting Oxides*, International Workshop on Magnetic Oxides, Fontevrad Abbey, Tours, France (April 21, 2005).

*Diluted Magnetic Semiconducting Oxide Films*, Physics Seminar, Tsinghua University, Beijing, China (May 23, 2005).

#### **Wellstood, F.**

*SQUID Microscopy of Intergrated Circuits*, Physics Department, University of Chulalongkorn, Bangkok, Thailand (July 28, 2004).

*Microwave Spectroscopy of Coupled Macroscopic Superconducting Qubits*, Physics Department, University of Chulalongkorn, Bangkok, Thailand (July 29, 2004).

*Quantum Computing Using Superconducting Devices*, Feynman Festival, University of Maryland, College Park (September 1, 2004).

*1,2,3 Superconducting Qubits*, Condensed Matter Colloquium, Pennsylvania State University, University Park (November 30, 2004).

#### **Yakovenko, V.**

*Self-Energy Near a Quantum Critical Point*, Workshop on Novel States and Phase Transitions in Highly Correlated Matter, Abdus Salam International Center for Theoretical Physics, Trieste, Italy (July 22, 2004).

*Parquet Method for a Flat 2D Fermi Surface*, School on Renormalization Group Methods for Interacting Electrons, Brasilia, Brazil (August 3-5, 2004).