

***MINT Fall Research Review***  
**Monday, October 27, 2014**  
**Tom Bevill Research Building, Room 1000**

**Session A**

- 7:15 Registration and Breakfast  
8:00 – 8:10 Welcome– *Carl Pinkert, Vice President for Research*  
8:10 – 8:40 Overview of the MINT Center– *Takao Suzuki, MINT Director*  
A-1 8:40 – 9:10 Overview of the NSF G8 Program - High Performance Permanent Magnets Sustainable for Next Generation– *Takao Suzuki (ECE/MTE)*  
A-2 9:10 – 9:40 Overview of the NSF DMREF Program - Designing Materials to Revolutionize and Engineer our Future– *Bill Butler (PH)*
- 9:40 – 9:50 **BREAK**
- A-3 9:50 – 10:10 Oxide Spintronics Materials– *Arun Gupta (CH/CbBE)*  
A-4 10:10 – 10:30 Systematic Search for New Half-metallic Heusler Alloys– *Patrick LeClair (PH)*  
A-5 10:30 – 10:50 Vortex Core Motion driven by Thermal Spin Transfer Torque– *Claudia Mewes (PH)*  
A-6 10:50 – 11:10 FePt(X) Nanorods and Multilayered Films– *Su Gupta (MTE)*  
A-7 11:10 – 11:30 Switching landscape of Spin Torque MRAM: Incoherent modes– *Pieter Visscher (PH)*  
A-8 11:30 – 11:50 Carbon Nanotube Network-Silicon Oxide Non-Volatile Switches– *Paulo Araujo (PH)*
- 12:00 – 13:00 **LUNCH (Bevill Research Building, Room 1000)**  
**ADVISORY BOARD MEETING (Bevill Research Building, Room 1003)**

**Session B**

- B-1 13:10 – 13:30 Polymer Nanocomposites as New Thermoelectric Materials– *Greg Szulczewski (CH) and Hung-Ta Wang (CbBE)*  
B-2 13:30 – 13:50 Terahertz generation and carrier dynamics of nanomaterials– *Margaret Kim (ECE)*  
B-3 13:50 – 14:10 Biomedical applications and toxicity of iron oxide nanoparticles– *Yuping Bao (CbBE)*  
B-4 14:10 – 14:30 Using Topological Surface States for Thermoelectrics– *Hung-Ta Wang (CbBE)*  
B-5 14:30 – 14:50 Photoelectric Property Change Caused by Additional Nano-confinement: A Study of Half-Dimensional Nanomaterial– *Jinhui Song (MTE)*
- 14:50 – 15:10 **BREAK**
- B-6 15:10 – 15:30 Hard-Magnetic Alloy Formation in Magnetic Superlattices– *Rainer Schad (PH)*  
B-7 15:30 – 15:50 Electronic Structure and Maximum Energy Product of MnBi– *Yang-Ki Hong (ECE)*  
B-8 15:50 – 16:10 Broadband investigation of anisotropic magnetization relaxation in thin films– *Tim Mewes (PH)*  
B-9 16:10 – 16:30 In Situ Characterization at MINT– *Gary Mankey (PH)*
- C 16:30 – 18:00 **POSTER SESSION - RECENT RESEARCH RESULTS**  
**Refreshments (Beer, Wine and light Hors D'oeuvres)**
- 18:00 – 20:00 **INFORMAL DINNER**  
**CYPRESS INN RESTAURANT (Crow's Nest Room)**