

Research Review Schedule – Thursday, October 24, 2013

8:30 AM -- Continental Breakfast at CMRR

8:55 AM -- Welcome and Introduction

9:00 AM – Signal Processing and Coding
Professor Paul H. Siegel

1	Analysis of Stochastic Decoding for LDPC Codes	<i>Aman Bhatia</i>
2	A Reduced Factor Graph Representation and BP Decoding for Polar Codes	<i>Veeresh Taranalli</i>
3	Iterative Detection and Turbo Equalization for 2-D ISI Channels	<i>Bing Fan</i>
4	Locally Repairable Codes for Distributed Storage Systems	<i>Minghai Qin</i>
5	Progressive Copyset Generation for Distributed Storage Systems	<i>Hironori Uchikawa</i>

10:40 AM -- 10 MINUTE BREAK

10:50 AM – Non-Volatile Solid-State Memory
Associate Professor Steve Swanson & Professor Paul H. Siegel

6	Constructions for ICI-Free Balanced Codes	<i>Scott Kayser</i>
7	Software-Defined Solid State Disks	<i>Steven Swanson</i>

8 **11:30 AM – Special Session: Nanoplasmonics and Metamaterials**
Assistant Professor Zhaowie Liu

12:30 PM -- Lunch at CMRR

1:20 PM -- Design and Fabrication of Nano Magnetic Materials
Professor Sungho Jin

9	Magnetically Guided Nanocapsules for Controlled Release of Biological Agents	<i>Paul Duyoung Choi</i>
10	In-situ Ordering of FePt L1 ₀ (001) Phase Using Under-layer	<i>Chad Chun</i>

11	Graphene Nano Network for Enhanced Gas Sensing	<i>Cihan Kuru</i>
2:20 PM -- Magnetic Materials & Devices <i>Research Professor Ami E. Berkowitz</i>		
12	Characterization of Spark-eroded MnBi Particles	<i>Phi Nguyen</i>
2:40 – 10 MINUTE BREAK		
2:50 PM—Magnetic Films and Nanostructures <i>Professor Eric Fullerton</i>		
13	Dynamic Switching of Vortex Circulation Revealed by Magnetic Soft X-ray Microscopy	<i>Vojtech Uhlir</i>
14	Optical Control of Magnetic Materials	<i>Charles-Henri Lambert</i>
15	Low-Temperature Characterization of Etch-Damaged Magnetic Tunnel Junctions	<i>Jimmy Kan</i>
16	High Frequency Magneto-Oscillation in Novel Structures	<i>Richard Choi</i>
4:10 -- 10 MINUTE BREAK		
4:20 PM – Tape Head Interface <i>Associate Research Scientist Fred Spada</i>		
17	Comparison of Tape Lubricant and Metal Particle Dispersant Contributions to Deposit Formation and Pole Tip Erosion in Tape Heads: Experiments with Lubricated and Non-Lubricated LTO Tape Media	<i>Frederick Spada</i>
4:40 PM – Poster Session/Lab tour		
5:30 PM -- Advisory Council Meeting		

Research Review Schedule --Friday, October 25, 2013

8:20 AM -- Continental Breakfast at CMRR

8:55 AM -- Welcome and Introduction

9:00 AM – Tribology and Mechanics
Professor Frank Talke

18	Experimental Investigation of the Tribology of the Dimple/ Gimbal Interface	<i>Youyi Fu</i>
19	Design and Optimization of Co-located Suspensions for Hard Disk Drives	<i>Karcher Morris</i>
20	Molecular Simulation of Lubricant Transfer at the Head-Disk Interface	<i>Young Seo</i>
21	Optical Pressure Sensor	<i>Alex Phan</i>

10:00 AM – 10 Minute Break

22	The Change of the Time Constant of a Touch-Down Sensor in Hard Disk drive as a Function of Heater Current	<i>Liane Matthes</i>
23	Detection of Disk Defects Using a Touch-Down Sensor in a Thermal Flying-Height Control Slider	<i>Chuanwei Zhang</i>

11:00 AM—Dynamic Modeling and Servo Technology
Professor Raymond De Callafon

24	Real-time Data Processing for Flying Height Control Using a Touchdown Sensor (Professor Talke's Student)	<i>Jorg Schroter</i>
25	Motion Control Experiments for Identification of Actuator Dynamics	<i>Raymond de Callafon</i>

11:40 AM- Energy Storage and Conversion Materials
Assistant Professor Shirley Meng

26	Nucleation and Growth Study on Nanoscale Cobalt and Cobalt Carbides	<i>Hyojung Yoon</i>
-----------	---	---------------------

12:00 noon – Lunch – CMRR Lobby/Patio Area

1:00 PM—Micromagnetics Modeling & Recording Physics

Associate Professor Vitaliy Lomakin

27	Micromagnetics and Recording Physics at CMRR	<i>Vitaliy Lomakin</i>
28	Stream Processing Approach to Finite Temperature Micromagnetic Simulations	<i>Sidi Fu</i>
28	GPU Accelerated OOMMF Simulator	<i>Sidi Fu</i>
29	Approaches for Computing Magnetostatic Fields in Micromagnetics	<i>Ruinan Chang</i>
30	Implementing Atomistic Models for Simulating Magnetic Grains at Finite Temperature	<i>Marco Menarini</i>
31	Thermal and Micromagnetic Solvers	<i>Dor Gabay</i>
31	Numerical Modeling of Nano-Granular Materials"	<i>Simon Couture</i>
32	Scripts and Codes for Micromagnetic Simulations of a Large Number of Projects	<i>Majd Kuteifan</i>

2:30 pm Adjournment - Thank you!

