Modern Math Workshop

Sponsored by the NSF Math Institutes











October 10, 2012

Time	Graduate Students and PhD's	Undergraduates	
Noon-1:00	Registration & Lunch		
1:00-1:25	SAMSI-Dr. James Nagy	Mini-Course 1 & 2 Concurrent	
1:30-1:55	MBI-Dr. Paul Hurtado		
2:00-2:25	MSRI-Dr. Micah Warren		
2:30-2:40	Break		
2:45-3:10	IMA-Dr. Gabriela Martinez Lopez	Mini Course 1.8.2 Consument	
3:15-3:40	ICERM-Dr. Jessica Purcell	Mini-Course 1 & 2 Concurrent	
3:45-4:10	Break/Snacks		
4:15-5:00	Keynote: Dr. Mariel Vasquez		
5:15-6:25	Math Institutes Panel		
6:30-8:00	Math Institutes Reception		

Room Locations

613 – Mini-Course 1: Sage Software Workshop

Dr. William Stein, University of Washington and Dr. Alejandra Alvarado, Purdue University 614 – Mini-Course 2: Inferring Gene Regulatory Networks: An Algebraic Geometry-Systems Biology Connection Dr. Brandilyn Stigler, Southern Methodist University

611 – Lunch, Snacks, Reception

612 – All other talks and sessions

- Dr. James Nagy, Statistical and Applied Mathematical Sciences Institute (SAMSI) and Emory University Large Scale Scientific Computing Problems in Medical Imaging
- Dr. Paul Hurtado, Mathematical Biosciences Institute (MBI) Immune-Pathogen Dynamics & Modeling Simple Multispecies Interactions
- Dr. Micah Warren, Mathematical Sciences Research Institute (MSRI) and Princeton University Optimal Transport and Geometry
- Dr. Gabriela Martinez Lopez, Institute for Mathematics and its Application (IMA) Optimization Problems with Probabilistic Constraints

Dr. Jessica Purcell, Institute for Computational and Experimental Research in Mathematics (ICERM) and Brigham Young University

Low-dimensional Topology, Geometry, and Dynamics

KEYNOTE Dr. Mariel Vazquez, San Francisco State University DNA Unknotting and Unlinking

Math Institutes Panel

Dr. Jill Pipher, Director, ICERM Dr. Suzanne Lenhart, Associate Director of Education, Outreach & Diversity, NIMBioS Dr. Alissa Crans, Director of Educational Activities, MSRI Dr. Chehrzad Shakiban, Associate Director, IMA Dr. Helen Chamberlain, Associate Director, MBI Dr. Snehalata Huzurbazar, Deputy Director, SAMSI Dr. Christian Ratsch, Associate Director, IPAM Moderator: Kelly Sturner, Education & Outreach Coordinator, NIMBioS

We invite you to a reception immediately following the panel discussion. Meet representatives from the NSF Math Institutes and Microsoft. Refreshments will be served.

October 11, 2012

Time	All Participants	
9:00-9:25	IAS-PCMI-Dr. Rafe Mazzeo	
9:30-9:55	NIMBioS-Dr. Calistus Ngonghala	
10:00-10:25	IPAM-Dr. Tatiana Toro	
10:30-10:55	Break	
11:00-noon	Information Session with Sponsors	

Room Location 612 – All events

Dr. Rafe Mazzeo, Institute for Advanced Study-Park City Mathematics Institute (IAS-PCMI) and Stanford University

The World of Modern Geometry - Some Problems and Applications

- Dr. Calistus Ngonghala, National Institute for Mathematical and Biological Synthesis (NIMBioS) The Role of Stochasticity and Safety Nets in Breaking Disease-induced Poverty Traps
- Dr. Tatiana Toro, Institute for Pure and Applied Mathematics (IPAM) and University of Washington Interactions between Analysis and Geometry

Information Session with Sponsors

Dr. Sastry G. Pantula, Division Director, Division of Mathematical Sciences, National Science Foundation TBD Representative, National Geospatial Intelligence Agency





