

112 th Statistical Mechanics Conference
Rutgers University, Busch Campus, Hill Center, Room 114
Sunday, December 14, 2014 - Tuesday, December 16, 2014

Honorees

GIOVANNI GALLAVOTTI JAMES LANGER PIERRE HOHENBERG LAI-SANG YOUNG

Sunday, December 14, 2014

8:00 AM	9:00 AM	<i>Registration and Breakfast</i>
9:00 AM	9:25 AM	Ute Ebert — CWI Amsterdam and Eindhoven Univ Techn From Viscous Fingering to Antimatter Beams From Thunderstorms
9:25 AM	9:50 AM	Wim van Saarloos — FOM Foundation Does Polymeric Fluid Flow Become Turbulent at Low Reynolds Numbers?
9:50 AM	10:15 AM	Eberhard Bodenschatz — Max Planck Institute Time Irreversibility of Turbulence
10:15 AM	10:45 AM	<i>Coffee</i>
10:45 AM	11:10 AM	Cristina Marchetti — Syracuse University Defects and Turbulent Dynamics in Active Nematics
11:10 AM	11:35 AM	Chris Rycroft — Harvard University Modeling the Toughness of Metallic Glasses
11:35 AM	12:00 PM	Hajime Tanaka — The University of Tokyo Growth of Structural Order in Polydisperse Hard Disks and Spheres and Its Connection to Glassy Slow Dynamics and Crystallization
12:00 PM	12:25 PM	James Langer — University of California - Santa Barbara Length and Time Scales in Glass-Forming Fluids.
12:25 PM	2:00 PM	<i>Lunch</i>
2:00 PM	2:25 PM	Jean Pierre Eckmann — University of Geneva Lyapunov Functions and Nonequilibrium Steady States for Chains of Rotators
2:25 PM	2:50 PM	Adilson Motter — Northwestern University Controlling Nonlinear Network Dynamics
2:50 PM	3:15 PM	László Barabási — Northeastern University Taming Complexity: Controlling Networks
3:15 PM	3:45 PM	<i>Coffee</i>

3:45 PM	4:10 PM	Boris Shraiman — University of California - Santa Barbara Emergent Simplicity of Evolution and the Possibility of Predicting Evolutionary Future
4:10 PM	4:35 PM	Thierry Mora — CNRS, UPMC and École Normale Supérieure Principles of an Well-Adapted Immune System
4:35 PM	5:00 PM	Laudatio - Pierre Hohenberg Wim van Saarloos - FOM Foundation and Boris Shraiman - University of California - Santa Barbara
5:00 PM	5:25 PM	Laudatio - Jim Langer Andrea Liu - University of Pennsylvania
5:30 PM	7:30 PM	Cocktails & Concert sponsored by Springer Fiber Optics Auditorium - Everyone is invited
7:30 PM		Banquet Busch Dining Hall - Reservation required

Monday, December 15, 2014

8:00 AM	8:40 AM	<i>Registration and Breakfast</i>
8:40 AM	9:40 AM	Short Talks - Session A
9:40 AM	10:10 AM	<i>Coffee</i>
10:10 AM	10:35 AM	Pablo Debenedetti — Princeton University Metastable Liquid-Liquid Transition in a Molecular Model of Water
10:35 AM	11:00 AM	Jane Kondev — Brandeis University How Cells Control the Size of Their Organelles
11:00 AM	11:25 AM	Lisa Manning — Syracuse University A Constant-Density Rigidity Transition in Biological Tissues
11:25 AM	11:50 AM	Richard Friedberg — Columbia University Compatible Quantum Theory
11:50 AM	12:15 PM	Denise LiGreci — Scholars at Risk - New York University Human Rights and Social Responsibility of Scientists
12:20 PM	12:40 PM	<i>Lunch</i>
1:40 PM	2:05 AM	Kristjan Haule — Rutgers University Some Examples of Recent Successes Predicting Properties of Correlated Electron Materials From First Principles by the Dynamical Mean Field Theory

2:05 PM	2:30 PM	Vieri Mastropietro — University of Milan Localization in Many Body Interacting Quasi-Periodic Fermionic Chains
2:30 PM	2:55 PM	Eddie Cohen — Rockefeller University Physics and Mathematics : Where Do the Twain Meet?
2:55 PM	3:20 PM	Mike Lipkin The Curious Case of Non-Equilibrium Finance
3:20 PM	3:50 PM	Coffee
3:50 PM	4:15 PM	David Pine — New York University Self-Assembly With DNA-coated Colloids
4:15 PM	4:40 PM	Olivier Rivoire — CNRS How History Shapes Geometry in a Model of Protein Evolution
4:40 PM	5:05 PM	Jeremy England — Massachusetts Institute of Technology Boltzmann's Dog and Darwin's Finch: the Statistical Thermodynamics of Self-Replication and Evolution
5:05 PM	5:30 PM	Laudatio - Lai-Sang Young Dmitry Dolgopyat - University of Maryland
5:30 PM	5:55 PM	Laudatio - Giovanni Gallavotti Vieri Mastropietro - University of Milan
6:00 PM		Cocktails and Dinner Hill Center - 7th Floor

Tuesday, December 16, 2014

8:30 AM	9:00 AM	Registration and Breakfast
9:00 AM	10:00 AM	Short Talks - Session B
10:00 AM	10:30 AM	Coffee
10:30 AM	10:55 AM	Pedro Garrido — Universidad de Granada Scaling Laws in Fluids Out of Equilibrium
10:55 AM	11:20 AM	Federico Bonetto — Georgia Tech Kac Particles Interacting With a Thermal Bath.
11:20 AM	11:45 AM	Raffaele Esposito — Universita' di L'Aquila Hydrodynamic Limit of the Stationary Boltzmann Equation.
11:45 AM	12:10 PM	Sergio Simonella — Technische Universität München Analysis of the Error and Statistics of Clusters in the Boltzmann–Grad Limit

12:10 PM	1:30 PM	<i>Lunch</i>
1:30 PM	1:55 PM	Roderich Tumulka — Rutgers University Novel Type of Hamiltonians Without Ultraviolet Divergence for Quantum Field Theories
1:55 PM	2:20 PM	Ovidiu Costin — Ohio State University Behavior of Functions Near Natural Boundaries and Applications.
2:20 PM	2:45 PM	Sourav Chatterjee — Stanford University Nonlinear Large Deviations
2:45 PM	3:10 PM	Dmitry Dolgopyat — University of Maryland Non-Collision Singularity in 4 Body Problem.
3:20 PM	3:45 PM	Yakov Sinai — Princeton University Bifurcations of Solutions of the 2-Dim Navier-Stokes System.
3:50 PM		Short Talks - Session C