119th Statistical Mechanics Conference
Rutgers University, Busch Campus, Hill Center, Room 114
Sunday, May 6, 2018 - Tuesday May 8, 2018
<u>Honorees</u>
Michael Aizenman, Paul Chaikin, and Jennifer Chayes

<u>Sunday, May 6th 2018</u>

Registration and Breakfast 8:00 - 9:00

9:00 - 9:25   **David Huse** - Princeton University
Butterflies: classical and quantum"

9:25 - 9:50   **Vojkan Jaksic** - McGill University
Statistical Mechanics of Repeated Quantum Measurements

9:50 - 10:15   **Emil Yuzbashyan** - Rutgers University
Integrable unitary dynamics and Knizhnik-Zamolodchikov equations

10:15 - 10:45   *Coffee Break*

10:45 - 11:10   **Salvatore Torquato** - Princeton University
Uncovering Multiscale Order in the Prime Numbers via Scattering

11:10 - 11:35   **Subhro Ghosh** - National University of Singapore
Two manifestations of rigidity in random point sets: forbidden regions and maximal degeneracy

11:35 - 12:00   **Louis Pierre Arguin** - City University of New York
The maxima of the Riemann zeta function in a short interval of the critical line

12:00 - 12:25   **Charles Newman** - New York University
Remarks on the Riemann Hypothesis"

Lunch 12:25 - 1:50

1:50 - 2:15   **Riccardo Zecchina** - Bocconi University
The out-of-equilibrium landscape of learning algorithms

2:15 - 2:40   **Simone Warzel** - Technical University of Munich
The hierarchical paradigm in random matrices models

2:40 - 3:05   **Roland Bauerschmidt** - University of Cambridge
Spin systems and interacting random walks

3:05 - 3:30   **Ron Peled** - Tel Aviv University

A power-law upper bound on the correlations in the two-dimensional random-field Ising model

3:30 - 4:00   *Coffee Break*

4:00 - 4:25   **John Imbrie** - University of Virginia
The Anderson model with discrete disorder

4:25 - 4:50   **Alexander Grosberg** - New York Univeristy
From Sisyphus to Boltzmann: an example of repulsive depletion interaction

4:50 - 5:15   **Dave Pine** - New York University
Anomalous diffusion of DNA-coated colloids on a substrate

5:15 - 5:40   **Gyan Bhanot** - Rutgers University
What are physicists doing working at the Cancer Institute?

5:45   Cocktails & Concert sponsored by Springer (All are invited)
8:00   Banquet at Busch Dining Hall - Reservation required

Monday, May 7th 2018
Registration and Breakfast 8:15 - 8:50

8:50 - 9:25   Short Talks: Session A

9:25 - 9:50   **Marek Biskup** - UCLA
Random walks on dynamical percolation and other degenerate environments

9:50 - 10:15   **Christian Borgs** -   Microsoft
From Graph Limits to Non-Parametric Graph Models and Estimation

10:15 - 10:40   **Antti Kupiainen** -   University of Helsinki
Proof of the DOZZ Formula

Coffee Break 10:40 - 11:10

11:10 - 11:35   **Andrea Liu** - University of Pennsylvania
How glasses relax and go with the flow

11:35 - 12:00   **Dov Levine** - Technion
Quantifying Hidden Order Out of Equilibrium

12:00 - 12:30   **Joel Lebowitz** - Rutgers University
Human rights session

Lunch 12:30 - 1:55

1:55 - 2:20   **David Vanderbilt** - David Vanderbilt
Axion insulators

2:20 - 2:45   **Bruno Nachtergaele** - University of California, Davis
Dimerization in a class of SU(n) invariant quantum spin chains

2:45 - 3:10   **Gian Michele Graf** -   ETH Zurich
Disorder and topology. The cases of Floquet and of chiral systems

Coffee Break 3:10 - 3:40

3:40 - 4:05   **Fyl Pincus** - University of California, Santa Barbara
Effective charge of hydrated ions

4:05 - 4:30   **Almut Burchard** - University of Toronto
Geometry in Wasserstein space: geodesics, gradients, and curvature, from an Eulerian point of view

4:30 - 4:55   **Simone Warzel** - Laudatio for Michael Aizenman
4:55 - 5:20   **Dave Pine** - Laudatio for Paul Chaikin
5:20 - 5:45   **Riccardo Zecchina** - Laudatio for Jennifer Chayes

5:45 Cocktails and Dinner at the Hill Center - 7th Floor

Tuesday, May 8th 2018
Registration and Breakfast 8:30 - 9:00

9:00 - 9:25	Short Talks
9:25 - 9:50	**Prasad Tetali** - Georgia Tech
	On the uniqueness/phase-coexistence threshold for the hard-core model on the square lattice
9:50 - 10:15	**Jasna Brujic** - NYU
	Self-assembly and Folding of Colloidal Emulsion Polymers
10:15 - 10:40	**Phil Sosoe** - Cornell University
	The chemical distance in 2D percolation

Coffee Break 10:40 - 11:10

11:10 - 11:35	**Bertrand Duplantier** - Paris-Saclay University
	Generalized Integral Means Spectrum of Whole-Plane SLE
11:35 - 12:00	**Jeff Schenker** - Michigan State University
	Localization (and resonant delocalization?) of a disordered polaron
12:00 - 12:25	**Percy Deift** - New York University
	On the asymptotic behavior of a log gas in the bulk scaling limit in the presence of a varying external

Lunch 12:25 - 1:35

1:35- 2:00	**Rafael Greenblatt** - University of Roma Tre
	Singular behavior of the Lyapunov exponent of a product of random 2×2 matrices and a related
2:00 - 2:25	**Avy Soffer** - Rutgers University
	On the Derivation of NLS type Dynamics of Perturbed Bose-Einstein Condensates
2:25 - 2:50	**Ofer Zeitouni** - Weizmann Institute of Science
	Some results concerning Liouville heat kernel
2:50 - 3:15	**Peter Winkler** - Dartmouth
	Large Random Permutations
3:15 - 3:40	**Pierluigi Contucci** - University of Bologna
	Species and Scales in the Gaussian Spin Glasses