

# DYNAMICS DAYS 2013 SCHEDULE

Wednesday, Jan. 2, evening.

5:30 PM	8:00 PM	Registration		
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Thursday, Jan. 3, morning.

7:30 AM	5:00 PM	Registration		
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8:30 AM	8:45 AM	Opening Remarks		
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8:45 AM	9:20 AM	Invited	<b>Daniel I. Goldman</b> (Georgia Tech)	Ant Dynamics: Digging, Falling, and Jamming in Subterranean Tunnels
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9:20 AM	9:40 AM	Contributed	<b>Jeffrey Weiss</b> (University of Colorado)	Nonequilibrium Fluctuations and Climate Variability
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9:40 AM	10:15 AM	Invited	<b>Raissa D'Souza</b> (University of California, Davis)	Percolation, Cascades, and Optimal Interdependence of Networks
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10:15 AM	10:55 AM	Break		
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10:55 AM	11:15 AM	Contributed	<b>Sebastian Skardal</b> (University of Colorado)	Hierarchical Paths to Synchronization in Networks with Community Structure
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11:15 AM	11:50 AM	Invited	<b>Thomas Peacock</b> (MIT)	Uncovering Oceanic Transport Barriers
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11:50 AM	12:10 PM	Contributed	<b>Korana Burke</b> (University of California, Davis)	Chaos Induced Energy Hopping in Periodically Kicked Rydberg Atoms
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# DYNAMICS DAYS 2013 SCHEDULE

Thursday, Jan. 3, afternoon

12:10 PM	2:00 PM	Lunch		
2:00 PM	2:20 PM	Contributed	<b>Anthony Chen</b> (University of Toronto)	Experiments on the Growth and Form of Icicles
2:20 PM	3:10 PM	Tutorial	<b>Bob Behringer</b> (Duke University)	Jamming and Dynamics of Granular Materials
3:10 PM	3:30 PM	Contributed	<b>Marc Kjerland</b> (University of Illinois at Chicago)	Linear Response Closure Approximation for Multiscale Systems
3:30 PM	4:10 PM	Break		
4:10 PM	4:45 PM	Invited	<b>Peter Ashwin</b> (University of Exeter)	Exotic Dynamical Behaviour in Coupled Dynamical Systems
4:45 PM	5:05 PM	Contributed	<b>Nathan Tompkins</b> (Brandeis University)	Establishing the Turing Mechanism Using Synthetic Cells
5:05 PM	5:40 PM	Invited	<b>Jay Fineberg</b> (The Hebrew Univ. of Jerusalem)	How Things Slide: Rapid Dynamics at the Onset of Friction

# DYNAMICS DAYS 2013 SCHEDULE

Friday, Jan. 4, morning

<b>8:00 AM</b>	<b>5:00 PM</b>	<b>Registration</b>		
<b>8:30 AM</b>	<b>9:05 AM</b>	Invited	<b>Aaron Clauset</b> (University of Colorado)	The Structural Determinants of Competitive Advantage in Team Competitions
<b>9:05 AM</b>	<b>9:25 AM</b>	Contributed	<b>Cedric Beaume</b> (Univ. of California, Berkeley)	Localization Phenomena in Three-dimensional Doubly Diffusive Convection
<b>9:25 AM</b>	<b>10:00 AM</b>	Invited	<b>Itai Cohen</b> (Cornell University)	Flight of the Fruit Fly
<b>10:00 AM</b>	<b>10:40 AM</b>	<b>Break</b>		
<b>10:40 AM</b>	<b>11:15 AM</b>	Invited	<b>David Christini</b> (Weill Cornell Medical College)	The Dynamical Underpinnings of Subcellular Calcium Alternans in Cardiac Myocytes
<b>11:15 AM</b>	<b>11:35 AM</b>	Contributed	<b>Simbarashe Nkomo</b> (West Virginia University)	Chimera States in Coupled Chemical Oscillators
<b>11:35 AM</b>	<b>12:10 PM</b>	Invited	<b>Mark Miesch</b> (High Altitude Observatory, NCAR)	Dynamic Origins of Solar Magnetism

# DYNAMICS DAYS 2013 SCHEDULE

Friday, Jan. 4, afternoon

12:10 PM	2:00 PM	Lunch		
2:00 PM	2:20 PM	Contributed	<b>Kerstin Nordstrom</b> (University of Maryland)	Granular Dynamics During Impact
2:20 PM	3:10 PM	Tutorial	<b>Dietmar Plenz</b> (National Institutes of Health)	Critical Dynamics and Integrative Networks of the Normal Brain
3:10 PM	3:30 PM	Contributed	<b>Shigefumi Hata</b> (Fritz-Haber Institute of the Max-Planck Society)	Dispersal-induced Oscillatory Turing Instabilities in Ecological Networks
3:30 PM	4:10 PM	Break		
4:10 PM	4:30 PM	Contributed	<b>Jan Nagler</b> (Max Planck Inst. for Dynamics and Self-Organization)	Devil's Staircases, Crackling Noise and Phase Transitions in Percolation
4:30 PM	5:05 PM	Invited	<b>Hans Herrmann</b> (ETH Zürich)	Packing of Wires in Cavities and Growing Surfaces
7:30 PM	9:30 PM	Poster Session A		

# DYNAMICS DAYS 2013 SCHEDULE

## Saturday, Jan. 5, morning

8:00 AM	5:00 PM	Registration		
8:30 AM	9:05 AM	Invited	<b>Michelle Girvan</b> (University of Maryland)	A Network Approach to the Orientation Problem in Genome Assembly
9:05 AM	9:25 AM	Contributed	<b>Ryan James</b> (University of California, Davis)	Forgetting and Remembering in Chaotic Dynamical Systems
9:25 AM	10:00 AM	Invited	<b>Keith Julien</b> (University of Colorado)	Asymptotic Approaches for Rotationally Constrained Flows
10:00 AM	10:40 AM	Break		
10:40 AM	11:00 AM	Contributed	<b>Elena Tolkacheva</b> (University of Minnesota)	Spatio-temporal Evolution and Prediction of Electromechanical Alternans in Isolated Rabbit Hearts
11:00 AM	11:35 AM	Invited	<b>Mark Newman</b> (University of Michigan)	Graph Spectra and Complex Networks
11:35 AM	12:10 PM	Invited	<b>Daniel Lathrop</b> (University of Maryland)	Quantum Fluid Flows: the Strange Things we See in Superfluid Helium

# DYNAMICS DAYS 2013 SCHEDULE

## Saturday, Jan. 5, afternoon

12:10 PM	2:00 PM	Lunch		
2:00 PM	2:20 PM	Contributed	<b>Daniel Gauthier</b> (Duke University)	Predictability and Control of Extreme Events in Complex Systems
2:20 PM	3:10 PM	Tutorial	<b>Glen R. Stewart</b> (University of Colorado)	Observation and Theory of Modulational Instability and Nonlinear Mode Coupling in Saturn's Rings
3:10 PM	3:30 PM	Contributed	<b>Woodrow Shew</b> (University of Arkansas)	Inhibition and Information Processing in the Cerebral Cortex
3:30 PM	4:10 PM	Break		
4:10 PM	4:30 PM	Contributed	<b>Cynthia Reichhardt</b> (Los Alamos National Laboratory)	Bidirectional Sorting of Flocking Models in the Presence of Asymmetric Barriers
4:30 PM	4:50 PM	Contributed	<b>Li Wang</b> (Univ. of California, Los Angeles)	Shock Solutions for High Concentration Particle-laden Thin Films
4:50 PM	5:25 PM	Invited	<b>Leon Glass</b> (McGill University)	Challenges for Computational Vision: From Random Dots to the Wagon Wheel Illusion
7:30 PM	9:30 PM	Poster Session B		

# DYNAMICS DAYS 2013 SCHEDULE

## Sunday, Jan. 6, morning

8:00 AM	5:00 PM	Registration		
8:30 AM	8:50 AM	Contributed	<b>David Rosin</b> (Duke University and Technische Univ. Berlin)	Control of Synchronization Patterns in Neural-like Boolean Networks
8:50 AM	9:25 AM	Invited	<b>Eleni Katifori</b> (Max-Planck Instit. for Dynamics and Self-Organization)	Deciphering the Topology of Planar Networks
9:25 AM	9:45 AM	Contributed	<b>Lei Dai</b> (MIT)	Critical Slowing Down Provides Advance Warning of Population Collapse
9:45 AM	10:05 AM	Contributed	<b>Kevin Mitchell</b> (University of California, Merced)	Pinning of Advection- reaction-diffusion Fronts: the Role of Burning Invariant Manifolds
10:05 AM	10:45 AM	Break		
10:45 AM	11:05 AM	Contributed	<b>Kameron Harris</b> (University of Washington)	Limited Imitation Social Contagion as a Model of Fashions
11:05 AM	11:40 AM	Invited	<b>Wendy Wei Zhang</b> (University of Chicago)	Dynamic Icescapes
11:40 AM	12:15 PM	Invited	<b>Michael Schatz</b> (Georgia Tech)	Exact Coherent Structures in Turbulence
12:15 PM	12:25 PM	Ending Remarks		