

Program

3rd International Workshop on
Nonlinear Response in Complex Matter
Primošten (Croatia), September 26-30, 2016

Monday

16:30 – 18:30 **Welcome Reception**

19:30 – 20:30 **Dinner**

20:30 – 21:40 **Evening Session**

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|-------------|-------------------------|---|
| 20:30–21:05 | Itamar Procaccia | <i>Mechanical Yield in Amorphous Solids is a First Order Phase Transition</i> |
| 21:05–21:40 | Thomas Truskett | <i>On the Formation of Equilibrium Gels via a Macroscopic Bond Limitation</i> |
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Tuesday

09:00 – 10:50 **Morning Session 1**

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|-------------|--------------------------|--|
| 09:00–09:35 | Jean-Louis Barrat | <i>Statistics of avalanches in elastoplastic models of deformed solids</i> |
| 09:35–10:10 | Giulio Biroli | <i>Breakdown of elasticity in amorphous solids</i> |
| 10:10–10:30 | Anaël Lemaître | <i>Long-range inherent stress correlations in quiescent liquids</i> |
| 10:30–10:50 | Edan Lerner | <i>Nonlinear plastic modes in disordered solids</i> |
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10:50 – 11:20 **Coffee break**

11:20 – 12:20 **Morning Session 2**

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|-------------|-------------------------|---|
| 11:20–11:40 | Fathollah Varnik | <i>The role of stress and structure fluctuations for plastic response</i> |
| 11:40–12:00 | Ulrich Buchenau | <i>Asymmetric double-well potentials with a finite lifetime</i> |
| 12:00–12:20 | Thomas Voigtmann | <i>Crystal Growth under Fluid Flow</i> |
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12:40 – 13:40 **Lunch**

13:40 – 15:30 **Discussion**

15:30 – 16:00 **Coffee break**

16:00 – 17:50 **Afternoon Session**

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|-------------|----------------------------|--|
| 16:00–16:35 | Brian Tighe | <i>Nonlinear and nonlocal mechanical response in soft solids near jamming</i> |
| 16:35–17:10 | Robert Jack | <i>Absence of dissipation in trajectory ensembles biased by currents: consequences for non-linear response</i> |
| 17:10–17:30 | Markus Blank-Burian | <i>Metabasin Lifetimes of Sheared Supercooled Liquids</i> |
| 17:30–17:50 | Ana-Suncana Smith | <i>Is there a glass or jamming transition in reconstituted tissues?</i> |
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18:10 – 19:40 **Dinner**

19:45 – 21:05 **Evening Session**

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|-------------|-------------------------|---|
| 19:45–20:05 | Olivier Dauchot | <i>Experimental evidence of the Gardner transition in a granular glass and related consequences for the mechanical response</i> |
| 20:05–20:25 | Peter Keim | <i>Mermin-Wagner fluctuations in 2D amorphous solids</i> |
| 20:25–20:45 | Andrea Ninarello | <i>Breaking the glass ceiling: equilibrating supercooled liquids below the experimental glass transition temperature</i> |
| 20:45–21:05 | Camille Scalliet | <i>Is there a Gardner transition in glass-forming liquids?</i> |
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Wednesday

09:00 – 10:50 **Morning Session 1**

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|-------------|------------------------|--|
| 09:00–09:35 | Peter Schall | <i>Sharp nonequilibrium transitions in the nonlinear response of soft matter</i> |
| 09:35–10:10 | Luca Cipelletti | <i>Microscopic dynamics of polymer samples under tensile stress</i> |
| 10:10–10:30 | Till Kranz | <i>Inelastic Hard Spheres at High Density and Strong Shear</i> |
| 10:30–10:50 | Stefan Egelhaaf | <i>Evolution of the single-particle structure and dynamics during the application of shear rate and shear stress</i> |
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10:50 – 11:20 **Coffee break**

11:20 – 12:20 **Morning Session 2**

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|-------------|-------------------------|---|
| 11:20–11:40 | Suvendu Mandal | <i>Active non-linear microrheology of simple model systems: Analytical results vs. Brownian dynamics simulation</i> |
| 11:40–12:00 | Liesbeth Janssen | <i>Activity-induced aging in a topologically constrained glass</i> |
| 12:00–12:20 | Abhinav Sharma | <i>Green-Kubo relations for active Brownian systems</i> |
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12:40 – 13:40 **Lunch**

13:40 – 15:30 **Discussion**

15:30 – 16:00 **Coffee break**

16:00 – 17:50 **Poster**

18:10 – 19:40 **Dinner**

19:45 – 21:05 **Evening Session**

19:45–20:05	Arthur Straube	<i>Discrete Fronts in Driven Magnetic Colloids: Theory and Experiment</i>
20:05–20:25	Matthieu Marechal	<i>Enhanced diffusion of rotating colloids in non-equilibrium</i>
20:25–20:45	Magdaleno Medina-Noyola	<i>Kinetics of arrested spinodal decomposition: colloidal gels and porous glasses</i>
20:45–21:05	Hans Joachim Schöpe	<i>Correlation between dynamical and structural heterogeneities in metastable hard-sphere fluids</i>

Thursday

09:00 – 10:50 **Morning Session 1**

09:00–09:35	Francois Ladieu	<i>Fifth-order susceptibility unveils the growth of thermodynamic amorphous order in glass-formers</i>
09:35–10:10	Ranko Richert	<i>Time-Resolved Nonlinear Response to High AC and DC Fields</i>
10:10–10:30	Marion Michl	<i>Glassy dynamics in plastic crystals investigated by nonlinear dielectric spectroscopy</i>
10:30–10:50	Yasuo Saruyama	<i>Temperature Modulated Dielectric Measurement as a Tool to Study Nonlinear Response upon Application of Periodic Temperature Modulation and Alternating Electric Field</i>

10:50 – 11:20 **Coffee break**

11:20 – 12:20 **Morning Session 2**

11:20–11:40	Matteo Polettini	<i>Marginal nonequilibrium thermodynamics: Fluctuations and response of some out of many thermodynamic currents</i>
11:40–12:00	Luis Fernando Elizondo-Aguilera	<i>Equilibration and aging of the orientational degrees of freedom in a system of interacting classical dipoles with quenched positional disorder</i>
12:00–12:20	Yuliang Jin	<i>Shear modulus of hard sphere glasses</i>

12:40 – 13:40 **Lunch**

13:40 – 16:10 **Discussion**

16:10 – 16:40 **Coffee break**

16:40 – 17:50 **Afternoon Session**

- 16:40–17:15 **Sabine Klapp** *Spatiotemporal patterns in confined colloidal suspensions under shear*
- 17:15–17:50 **Jörg Baschnagel** *On the Shear Modulus and the Shear Relaxation in Glass-Forming Systems and Disordered Networks*
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18:10 – 19:40 **Dinner**

19:45 – 21:05 **Evening Session**

- 19:45–20:05 **Bernhard Roling** *Anomalous Wien Effects in Supercooled Ionic Liquids*
- 20:05–20:25 **Birte Riechers** *Metallic Glasses under High Field Excitation*
- 20:25–20:45 **Thomas John** *A model for transient subdiffusive particle motion in mucus*
- 20:45–21:05 **Wouter Ellenbroek** *Rigidity Transitions in Disordered Network Materials*
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Friday

09:00 – 10:30 **Morning Session 1**

- 09:00–09:35 **Vincent Krakoviack** *Hard-sphere fluid in a random potential energy landscape*
- 09:35–10:10 **David Sidebottom** *Connectivity Patterns in the Fragility of Network-forming Glasses*
- 10:10–10:30 **Damien Vandembroucq** *Glass surfaces under flow: Attenuation and freezing of capillary waves*
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10:30 – 11:00 **Coffee break**

11:00 – 11:40 **Morning Session 2**

- 11:00–11:20 **Mathijs Vermeulen** *Controlling Self-stresses in disordered Networks*
- 11:20–11:40 **Matthias Krüger** *Fluctuation forces out of equilibrium*