

**MON2F6: Liquids, Disordered and Off-Equilibrium Systems - Out of Equilibrium Systems**

Chaired by R. Zecchina, Politecnico di Torino, Turin, Italy

Time: Monday 16:50–18:30

Location: Aula 6

**Invited talk** MON2F6.1 16:50 Aula 6  
**Jamming versus Glass Transitions** — ●JORGE KURCHAN<sup>1</sup>, ROMAIN MARI<sup>1</sup>, and FLORENT KRZAKALA<sup>2</sup> — <sup>1</sup>PMMH, CNRS UMR 7636, Paris, France — <sup>2</sup>PCT, CNRS UMR Gulliver 7083, Paris, France

Jamming and glass transitions are two phenomena displayed by amorphous solids whose mutual relation is not clear. We discuss a family of models we have proposed to clarify the issue.

MON2F6.2 17:30 Aula 6  
**Intermittent response and spontaneous fluctuations in off-equilibrium aging dynamics** — ●PAOLO SIBANI — IFK, Syddansk Universitet, Campusvej 55, DK5230 Odense M

The off-equilibrium response of aging thermal system is controlled by (subordinated to) irreversible and intermittent outbursts of energy, or quakes. The temporal statistics of the latter is known, whence an analytical description is possible.

MON2F6.3 17:50 Aula 6  
**First-order transition behaviour in presence of dilution in 3D** — LUIS ANTONIO FERNANDEZ<sup>1,3</sup>,

●ANTONIO GORDILLO-GUERRERO<sup>2,3</sup>, VICTOR MARTIN-MAYOR<sup>1,3</sup>, and JUAN JESUS RUIZ-LORENZO<sup>2,3</sup> — <sup>1</sup>Dept. Física Teórica. Universidad Complutense, 28040 Madrid. Spain. — <sup>2</sup>Dept. Física. Universidad de Extremadura, 06071 Badajoz. Spain. — <sup>3</sup>Instituto de Biocomputación y Física de Sistemas Complejos (BIFI), 50009 Zaragoza. Spain.

Using a novel microcanonical method (entropy, rather than free energy, is the basic magnitude) we found a first-order phase transition in the presence of quenched disorder (for the site-diluted four states Potts model).

MON2F6.4 18:10 Aula 6  
**Shear-induced inhibition of the crystal nucleation and growth of crystals from solution** — ●GEOFFREY MITCHELL<sup>1</sup>, SUPATRA WANGSOUB<sup>2</sup>, FRED DAVIS<sup>1</sup>, and ROBERT OLLEY<sup>1</sup> — <sup>1</sup>Polymer Science Centre, University of Reading, Whiteknights, Reading RG6 6AF UK — <sup>2</sup>Department of Chemistry, Naresuan University, Phitsanulok 65000 Thailand

We show for the first time, that the nucleation and growth of crystals of a low molar mass compound from solution can be inhibited by shear flow which we attribute to a shear-dependent collision cross-section.