



ΓΕΝΙΚΟ ΣΕΜΙΝΑΡΙΟ ΤΜΗΜΑΤΟΣ ΦΥΣΙΚΗΣ

PHYSICS COLLOQUIUM

Thursday, 07 March 2013

17:00 -18:00

3rd Floor Seminar Room

“Using colloids to study the physics of the mesoscopic world”

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Abstract

Colloidal systems have been used as model systems to study a plethora of fundamental condensed matter problems such as the interplay between equilibrium phases (crystals and liquids) and non-ergodic states (glasses or gels), and their behavior under external fields. A major goal is to develop an understanding which will enable tailoring of the mechanical and flow properties based on the structure and dynamics at the particle level. Here I will present recent experiments and computer simulations that investigate the relation between structure, dynamics and mechanical properties of colloidal suspensions in confinement and colloidal glasses and gels under shear.