

Séminaire du SPEC
Jeudi 15 février 2007, 10h00

Bt. 774 - Salle Claude ITZYKSON
Centre d'Etudes de Saclay, Orme des Merisiers
91191 Gif-sur-Yvette

ATTENTION : jour et heure inhabituels

Séminaire exceptionnel du groupe théorie

**Local and global structures in supercooled liquids
and colloidal suspensions**

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Recently, growing evidences of an interplay between local and global structure in systems as diverse as supercooled liquids and colloidal suspensions have been found. Based on molecular dynamics computer simulations and global optimization techniques, I will discuss two examples : i) the existence of a locally preferred structure of icosahedral symmetry in nanoscopic systems in the supercooled liquid state ; ii) the formation of stable cluster phases in mesoscopic colloidal suspensions. The above considerations shed new light on the role played by geometric frustration in the context of the glass transition and on the physical mechanisms controlling the formation of colloidal gels.

Invitant :

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