

Post-doctoral position A theoretical study of Jamming in colloidal systems

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Laboratoire d'accueil :

Laboratoire Gullivers (LPEM)UMR 7083 ESPCI-CNRS 10 rue Vauquelin75231 Paris Cedex 5France

Sujet du postdoc :

Theoretical study of the jamming transition in colloidal systems

Thématique de recherche :

Recently a number of theoretical studies have obtained strong quantitative predictions regarding the critical properties of amorphous packing close to the jamming transition. However probing the jamming transition experimentally in colloidal systems remains an open challenge. In a joint effort, a team in Gulliver, led by Olivier Dauchot and a team at ENS, lead by Francesco Zamponi aim at bridging this gap in order to provide new constrains to existing theories. On one hand experiments will be conducted at ESPCI on the recently acquired fast confocal platform, while new computations will be conducted at ENS in order to adapt the existing theory, written for ideal soft spheres, to the real experimental systems. Data extracted from the colloidal experiments will then be confronted to the theory.

Compétences requises :

A strong theoretical knowledge in liquid state physics, glasses and disordered systems in general

Début :

December 2015

Durée :

One year contract

Contact

Olivier DAUCHOT olivier.dauchot@espci.fr Candidatures (lettre de motivation et CV) à transmettre par courrier électronique.

Accès

Métro ligne 7 (Place Monge/Censier Daubenton) RER B (Luxembourg) Bus 21, 27 & 47 3 stations Vélib proches