SEMPARIS – Séminaires en région parisienne

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Seminar of the theory group of APC

Mardi 13 Octobre 2015, 14 :00
APC, 483A Malevitch
Domaines : hep-th

Titre : *The dynamic contact line problem. How multiscale problems are solved in soft condensed matter*

Orateur : **Bruno Andreotti (ESPCI - Université Paris Diderot)**

Résumé : *The speed at which liquid can move over a solid surface is strongly limited when a three-phase contact line is present, separating wet from dry regions. When enforcing large contact line speeds this leads to entrainment of drops, films or air bubbles. I will discuss experimental and theoretical progress revealing the physical mechanisms behind these dynamical wetting transitions. In this context I will discuss microscopic processes taking place at the microscopic scale : capillarity, thermally activated motion over heterogeneities, deformations of the substrate, evaporation, etc. I will then show how the asymptotic matching technique allows one to describe quantitatively a problem in which the inner and outer scales, separated by 6 decades, remains coupled.*