

**COLLOQUIUM DE MATHEMATIQUES
DE L'UNIVERSITE PARIS 12**

Université Paris 12

Salle P2-132

Jeudi 31 mai 2007

à 14h30

Fraydoun REZAKHANLOU

University of Berkeley

Moments bounds for Smoluchowski equation

Smoluchowski Equation is a macroscopic model for the evolution of the densities of coagulating Brownian particles. We state some sufficient conditions on the coagulation rates and diffusion coefficients that would prevent the occurrence of gelation. Under these conditions we also prove the uniqueness of the weak solutions. The main step is various bounds on the moments of solutions.

Organisateurs

Julien BREMONT et Raphaël DANCHIN

Laboratoire d'Analyse et de Mathématiques Appliquées - Université Paris 12