# SCMS Seminar

## AVERAGING FOR NONLINEAR PDES

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**University Paris 7**

Abstract: Consider a linear hamiltonian PDE with variable coefficients under space-periodic boundary conditions, and its epsilon-small nonlinear perturbation (hamiltonian or not). In my lectures I will present an averaging theory which describes behaviour of solutions for the perturbed equation on time-intervals of order 1/epsilon. I will discuss similar problems for the cases when the perturbation contains randomness, or when the unperturbed equation is nonlinear integrable.

**Lecture 1**
Time: 2:30-3:15, 3:25-4:10 pm., Thursday, April 9, 2015
Venue: Room 2201, East Main Guanghua Tower, Handan Campus

**Lecture 2**
Time: 2:30-3:15, 3:25-4:10 pm., Monday, April 13, 2015
Venue: Room 2201, East Main Guanghua Tower, Handan Campus

**Lecture 3**
Time: 2:30-3:15, 3:25-4:10 pm., Thursday, April 23, 2015
Venue: Room 2201, East Main Guanghua Tower, Handan Campus

**Lecture 4**
Time: 2:30-3:15, 3:25-4:10 pm., Monday, April 27, 2015
Venue: Room 2201, East Main Guanghua Tower, Handan Campus

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