

Department of Mathematics  
City University of Hong Kong

## Colloquium

Organised by Prof. H. H. Dai and Prof. D. X. Zhou

Recent Progress on Elliptic Homogenization Problems

by

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**Abstract** : In this survey talk I will describe my work, joint with Carlos Kenig and Fanghua Lin, on homogenization of elliptic equations and systems. Here we consider a family of second-order elliptic operators with rapidly oscillating periodic coefficients, arising in the theory of homogenization. We obtain uniform sharp regularity estimates of solutions with the Dirichlet or Neumann boundary conditions, as well as sharp convergence rates of solutions and eigenvalues.

Date : 28 September 2011 (Wednesday)  
Time : 4:30pm – 5:30pm  
Venue : Room B6605 (College Conference Room)  
Blue Zone, Level 6  
Academic Building  
City University of Hong Kong

(Tea, coffee and cookies will be provided at the College Conference Room in B6605 before the colloquium from 4:00 to 4:30pm. Please come and join us.)

**\*\* All interested are welcome \*\***  
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