

IMS Public Lecture

Roles of Differential Equations in Mathematics and Sciences

Speaker: Professor Fanghua Lin
Courant Institute, New York University

Date: Tuesday, 11 August 2009

Time: 6:30pm – 7:30pm

Venue: Lecture Theatre 31
Block S16, Level 3, Science Drive 1
National University of Singapore, Singapore 117543

FREE ADMISSION

About the Speaker



Professor Fanghua Lin is the Silver Professor of Mathematics at the Courant Institute of Mathematical Sciences, New York University. He is a world leader in applied and pure mathematics. His research interests include analysis, partial differential equations and geometric analysis, among others. Professor Lin obtained his PhD from University of Minnesota in 1985 and was promoted to full professor in 1989 at the Courant Institute of Mathematical Sciences in New York University. He has published over 150 papers, supervised 11 PhD students and 20 postdocs. His honors include a Sloan Fellowship in 1989, a Presidential Young Investigator award (1989-1994), the Changjiang Professorship at Zhejiang University in 1999, the AMS Bocher Prize in 2002, election to the American Academy of Arts and Sciences in 2004 and the S.S. Chern Prize at the ICCM in 2004. Professor Lin was an invited speaker at the International

Congress of Mathematics in 1990, an invited speaker at the AMS National Meeting in 2002 and Plenary speaker at the ICCM 2004 and 2007. He is currently on the editorial board of over 10 journals including *Comm. Pure. Appl. Math.*, *SIAM J. Math. Anal.*, *J. Diff. Geometry and Math. Res. Letters*.

Abstract

We shall describe some fundamental roles played by the theories of differential equations in both pure mathematics and applied sciences. By examining past themes and the current developments, the goal of the lecture is to illustrate some philosophical views as well as some new scientific directions and challenges. It is a talk intended for an audience having no specialized knowledge in mathematics.