THE UNIVERSITY   **OF HONG KONG**

Institute of Mathematical Research

Department of Mathematics

C O L L O Q U I U M

Practical Course in Differential Equations and Mathematical Modelling

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Date: May 27, 2011 (Friday)

Time: 10:30 – 11:30am

Place: Room 210, Run Run Shaw Bldg, HKU

Abstract

"Practical Course in Differential Equations and Mathematical Modelling" is a unique blend of the traditional methods of solving ordinary and partial differential equations with Lie group analysis enriched by the author's own theoretical developments. The book aims to present new mathematical curricula based on symmetry and invariance principles. It is tailored to develop analytic skills and "working knowledge" in both classical and Lie's methods for solving linear and nonlinear differential equations. This approach helps to make courses in differential equations and mathematical modelling easy to follow and interesting for students.

The book is based on the author's extensive teaching experience at Novosibirsk and Moscow universities in Russia, Collège de France, Georgia Tech and Stanford University in the United States, universities in South Africa, Cyprus, Thailand, Turkey and Blekinge Institute of Technology (BTH) in Sweden. The new curriculum prepares students for solving modern nonlinear problems and is more appealing to students compared to the traditional way of teaching mathematics.

The book can be used by undergraduate and graduate students as well as by university lecturers in applied mathematics, physics and engineering.

All are welcome