



Speaker: Vladimir Novikov
Loughborough University, UK

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4:00 PM
117 Hayes-Healy Hall

Title: Algebraic aspects of integrable partial differential equations

Abstract:

Integrable partial differential equations remain an topic of intensive studies in the past decades. Apart from studying the rich mathematical structures that such integrable systems possess, the important question of how to recognise integrable systems (and, in fact, what is integrability) remains a live topic of research. There are various approaches in this direction based on remarkable properties of integrable systems: one could mention Painleve test, symmetry approach, existance of multiphase solutions, method of hydrodynamic reductions, various perturbative techniques etc. In this talk I will review various methods and techniques of identifying integrable partial differential equations as well as their applications.