



Applied and Computational Mathematics Seminar

Title: Reconnection and Wave dynamics for classical and quantum vortices

Speaker: Robert M. Kerr (University of Warwick, UK)

Date: Thu 1st October 2009 at 3:00PM

Location: Mathematical Sciences Seminar Room

Abstract: The underlying microphysics of classical and quantum fluids are fundamentally different. However, each develops turbulence composed of vortex tangles and kinetic energy decays in roughly the same way. How is this possible when there are no viscous terms in superfluid turbulence? This presentation will present reconnection calculations of both the quantum Gross-Pitaevskii equations and the classical Navier-Stokes equations, focusing upon where the kinetic energy in the quantum case goes during its decay.

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