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DEPARTMENT OF APPLIED MATHEMATICS APPLIED SEMINAR SERIES 2007

The Seminar Series of the Department of Applied Mathematics, UNSW, Sydney is dedicated to the announcement, dissemination and discussion of research in mathematics and its applications. A fundamental aim of the Seminar Series is to feature lectures that inform in a manner that makes the subject accessible to the audience, including non-specialists.

SPEAKER: Professor Frederic Dias, Centre de Mathematiques et de Leurs Applications (CMLA), ENS-CACHAN, France. Frederic.Dias@cmla.ens-cachan.fr

TITLE: On mathematical models for the generation, propagation and impact of water waves.

Abstract: After describing a variety of applications of water wave theory (tsunamis, freak waves, storm surges, sloshing), I will present the partial differential equations used to describe water waves (Euler equations for a single fluid or two fluids, long wave models, linearized equations, visco-potential models) and the methods of solutions (dynamical systems theory, analytical as well as numerical methods, numerical wave tanks). Finally, recent results will be given.

TIME AND VENUE: 2pm, Thursday 6 December 2007, Room 4082, Red Centre.



Enquiries to Dr Chris Tisdell, cct@unsw.edu.au