



ΠΑΝΕΠΙΣΤΗΜΙΟ ΙΩΑΝΝΙΝΩΝ

ΤΜΗΜΑ ΜΑΘΗΜΑΤΙΚΩΝ



Εβδομαδιαίο Σεμινάριο

NUMERICAL ANALYSIS OF SOME LONG-WAVE MODELS FOR SURFACE WATER WAVES

Vassilios A. Dougalis

Department of Mathematics, University of Athens, and IACM-FORTH

In this talk, attention will be given to some long-wave (shallow-water) models that describe two-way propagation of surface water waves and approximate the 2d Euler equations. These will include the nonlinear hyperbolic system of shallow water equations, the weakly nonlinear dispersive Boussinesq systems, the 'fully nonlinear' dispersive Serre (or Green-Naghdi) equations, and the Camassa-Holm equation. An overview will be given of issues such as modelling, well-posedness, and numerical analysis of these systems. Results of numerical experiments on properties of solitary-wave solutions of the dispersive systems will also be shown.

Τετάρτη 7 Νοεμβρίου 2018, 6:00μμ

Αίθουσα 201α Τμήματος Μαθηματικών

Μετά την ομιλία ακολουθεί καφές και συζήτηση στο εντευκτήριο του Τμήματος