

## ATENEO



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### ***Numerical methods for shallow flows: difficulties and applications***

**Abstract:** Many geophysical flows can be modelled by means of hyperbolic PDE systems with non-conservative products and/or source term: in particular this is the case for many models based on the shallow water hypothesis. In the talk, some shallow water models will be presented which are useful to model sedimentary flows, turbidity currents, floods, tsunamis, avalanches, marine flows, etc. Next, a general methodology for developing high order well-balanced numerical schemes for this kind of systems will be presented and the main difficulties will be discussed. Finally, some applications to real flows will be shown.

**Sala de Grados I, Facultad de Ciencias  
Jueves 8 de Febrero de 2018 (17:00)**

