

CMM PDE Seminar

Speaker: María Eugenia Martínez (Université Claude Bernard Lyon 1).

Title: The soliton problem for water waves models with a varying medium.

Abstract: We focus on the study of solitary waves for two deep water wave models: the Whitham equation and the Zakharov water waves system. In particular, we analyse the behaviour of a solitary wave when it encounters a change in the environment, for example when the bottom of the domain containing the fluid is altered.

Zakharov water waves system arises as a free surface model for an irrotational and incompressible fluid under the influence of gravity. Such a fluid is considered in a domain with a rigid bottom and a free surface. In this talk, we are interested in analysing the behaviour of the solitary wave solution of the flat-bottom problem when the bottom actually presents a change at some point, where the solitary wave enters into an interaction regime with the bottom.

This is a joint work with Claudio Muñoz (Universidad de Chile) and Frédéric Rousset (Université Paris-Sud).

El link para acceder a la reunión de zoom:

<https://reuna.zoom.us/j/89644470035?pwd=ZGg2eGIRRHVtaU51dWJZQWZKRHdSQTO9>

October 30, 2023 at 12 Santiago time.

Venue: Online via Zoom / Sala de Seminarios 5th floor, Beauchef 851

For further information, see our webpage: <https://eventos.cmm.uchile.cl/pdeseminar/>

