

CMM PDE Seminar

Speaker: Khawla Msheik (Université Lyon 1, France).

Title: New mathematical model for Tsunamis with precise time arrival predictions.

Abstract: We propose in this work a new system of equations modeling Tsunamis. It is a coupled system accounting for both water compressibility and viscoelasticity of the earth. Adding these latter physical effects is responsible for the closest-to-reality time arrival predictions (among existing models), capturing the negative peak before the main wave hump, and the exhibition of the negative dispersion phenomena. This comes in remarkable agreement with previous experiments and studies on the topic. The system is also delivered in a relatively simple mathematical structure of equations that is easy to solve numerically. Further well posedness results are also investigated.

Monday, July 03, 2023 at 12 Santiago time.

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

El link para acceder a la reunión de zoom:

<https://reuna.zoom.us/j/83089329178?pwd=TWJQekZSL1BDK2NnLOJacUwxNXJVQT09>

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

