

SEMINARIO EDP

Expositor: Christopher Maulén, Universidad de Chile

Title: Decay in the one dimensional generalized improved Boussinesq equation.

Abstract:

The purpose of this talk is to explain the decay problem for the generalized improved (or regularized) Boussinesq model with power type nonlinearity, a modification of the originally ill-posed shallow water waves model derived by Boussinesq.

The associated decay problem has been studied by Liu, and more recently by Cho-Ozawa, showing scattering in weighted spaces provided the power of the nonlinearity p is sufficiently large. In this talk we remove that condition on the power p and prove decay to zero in terms of the energy space norm $L^2 \times H^1$, for any $p > 1$, in two almost complementary regimes: (i) outside the light cone for all small, bounded in time $H^1 \times H^2$ solutions, and (ii) decay on compact sets of arbitrarily large bounded in time $H^1 \times H^2$ solutions.

These works were developed in collaboration with C. Muñoz.

Miércoles 09 de octubre del 2019 a las 17:00 hrs. al Seminario EDP, el cual tendrá lugar en la Sala de Seminario Felipe Álvarez Daziano, 5to piso, Torre Norte de Beauchef 851.