

SEMINAR EDP

Gustavo Ponce, University of California, Santa Barbara, USA

“Unique continuation for some nonlinear dispersive models”

ABSTRACT :

This talk is concerned with unique continuation properties (UCP) for solutions to some time evolution equations. We shall study two types of UCP (1) local and (2) asymptotic at infinity. Roughly, (1) local means : If u, v are solutions of the equation which agree in an open set D , then they are identical in the whole domain of definition.

Roughly, (2) asymptotic at infinity means if u, v are solutions such that $\|u(t) - v(t)\| \leq \epsilon$ for $t = t_1$ and $t = t_2$, then they are identical in the whole domain of definition.

The class of dispersive model to be considered includes the Benjamin-Ono equation and the Camassa-Holm equation.

Yvan Martel, École Polytechnique, France

"ODE blowup on an arbitrary compact set for semilinear dispersive and wave equations"

ABSTRACT:

We consider the focusing energy subcritical nonlinear wave equation and a Schrödinger equation with nonlinear source term. Given any compact set K , we construct finite energy solutions which blow up at $t=0$ exactly on K .

References:

<https://arxiv.org/abs/1906.02983>

<https://arxiv.org/abs/1812.03949>

Miércoles 31 de julio a las 16:00 hrs, en la sala de seminarios Felipe Álvarez, del Depto. de Ingeniería Matemática, Beauchef 851, Torre Norte.