

PDE, COMPLEX ANALYSIS AND DIFFERENTIAL GEOMETRY SEMINAR

Guest Speaker: Renata Figueira
Universidade Federal de Sao Carlos, Brazil

Date: Tuesday, November 3, 2020

Time: 11:00 AM

Location: Zoom



Lecture Title:

The Cauchy problem for a high dispersion KdV equation with data in analytic spaces

Abstract

We shall consider the Cauchy problem for a high dispersion Korteweg-de Vries equation with initial data belonging in a class of analytic function that can be extended holomorphically in a symmetric strip of the complex plane around the x -axis. This talk is devoted to the presentation of a result about local well posedness in these classes of functions, which guarantees the analyticity of the solutions in space variable for short times. Also, we shall discuss the decay of the radius of spatial analyticity for the solutions as time goes to infinity. This work is in collaboration with Alex Himonas and Fangchi Yan.