

EDPs Seminar

Speaker: Felipe Linares (IMPA, Brasil)

Title: Maximal function estimates and local well-posedness for the generalized Zakharov--Kuznetsov equation.

Abstract: In this talk we will discuss recent results regarding local well-posedness for the generalized Zakharov--Kuznetsov equation. We prove a high-dimensional version of the Strichartz estimates for the unitary group associated with the free Zakharov-Kuznetsov equation. As a by-product, we deduce maximal estimates which allow us to prove local well-posedness for the generalized Zakharov-Kuznetsov equation in the whole subcritical case whenever $d \geq 4$, $k \geq 4$ complementing the recent results of Kinoshita and Herr-Kinoshita. Finally, we use some of those maximal estimates in order to prove pointwise convergence results for the flow of the generalized Zakharov--Kuznetsov equation in any dimension, in the same spirit of a recent manuscript by Compaan, Lucà and Staffilani.

Zoom: <https://uchile.zoom.us/j/82002559185?pwd=NTFWWGNgM21pOVFWc2Z5ZEJKVUJWZz09>

Meeting ID: 820 0255 9185

Passcode: 838670

Thursday (09/12) at 4:15 pm (Chilean time).