



Analysis Seminar

Title: Elliptic Differential Inequalities with Nonlocal Terms

Speaker: Marius Ghergu

Date: Tue 17th October 2023 at 3:00PM

Location: E0.32 (beside Pi restaurant)

Abstract: We report on several elliptic differential inequalities featuring convolution terms. Such problems are motivated by the so-called Choquard equation arising in various fields, ranging from quantum physics to Newtonian relativity. The differential operator is given by the p -Laplace, mean curvature or the iterated Laplace operator. We provide optimal conditions in terms of the parameters for the existence of a positive solution.

This talk is based on a number of results jointly obtained with P. Karageorgis (Dublin), G. Singh (Dublin), Z. Yu (Dublin), Y. Miyamoto (Tokyo) and V. Moroz (Swansea).

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