

SIMION STOILOW INSTITUTE OF MATHEMATICS OF THE ROMANIAN ACADEMY

Monthly conference:

Differential Inequalities with Nonlocal Terms

Marius Ghergu

(University College Dublin and IMAR)

Wednesday December 15th, 2021, 13:00, online

Zoom link:

<https://us02web.zoom.us/j/89702155750?pwd=a0xXYkFyQVFxRUdGdUs0V2FiZm1WZz09>

Meeting ID: 897 0215 5750, Passcode: 469112

Abstract: We discuss 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 joint works with P. Karageorgis (Dublin), G. Singh (Dublin), Y. Miyamoto (Tokyo) and V. Moroz (Swansea).