

Conference on Local and Nonlocal Interactions in Some Mathematical Models

China-Romania Research Center in Applied Mathematics

University of Craiova, December 6 - 2025

Main building of the University of Craiova, Room C219, 09:00



Local and nonlocal interactions in some mathematical models

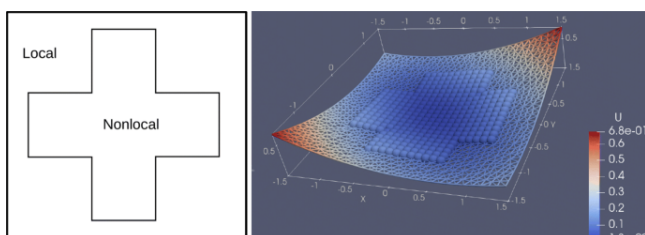
This international conference aims to investigate the new research directions and solve important open problems associated with problems with mixed subcritical-critical-supercritical regime in the local and nonlocal abstract settings.

There is at present no efficient approach for the study of blow-up boundary solutions of fully nonlinear elliptic equations (Bellman, Monge-Ampère, Isaacs, and Gaussian curvature equations) and nonlocal problems (fractional Laplace, Choquard, Schrödinger Kirchhoff equations).

Our meeting addresses some gaps in existing knowledge: nonlinear systems with mixed regime, blow-up and singular phenomena in nonlocal setting, Karamata theory for fully nonlinear and nonlocal settings.

CONTACT

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Senior speakers (45 min/talk)

Sitong Chen (Central South University, Changsha):

Static solutions for Choquard equations with Coulomb potential

Vicentiu Radulescu (University of Craiova):

Nonlocal elliptic equations with singular reaction

Ionel Roventa (University of Craiova):

Uniform boundary controllability of wave equations

Lixi Wen (Changsha University of Science and Technology):

Planar Klein-Gordon-Maxwell systems with critical exponential growth

Junior speakers (30 min/talk)

Peng Jin (Central South University, Changsha University of Craiova):

Normalized solutions for the upper critical Choquard equation

Muhua Shu (Central South University, Changsha University of Craiova):

Ground states for planar stationary systems with critical exponential growth

Xueying Tang (Central South University, Changsha):

Peak solutions for critical quasilinear equations

Jiuyang Wei (Central South University, Changsha):

Nontrivial solutions of Choquard equations with doubly critical exponents

Acknowledgements

The meeting is organized in the framework of the China-Romania Research Center in Applied Mathematics and with the support of the project PNRR-III-C9-2022-I8/22. Discussions and further collaborations are scheduled at 14:00, Room C221