
Seminário Luiz Adauto Medeiros de Análise e EDP

12/11/2025 às 12:10h

IM-UFRJ, CT sala C-116

"Recycling" Ishii-Lions method for nonlocal elliptic problems

Erwin Topp

IM-UFRJ

Resumo: In this talk, I will report some regularity results for fractional elliptic equations through the celebrated Ishii-Lions method (JDE'90). We start discussing the original argument introduced in the early nineties for second-order problems, and the subsequent nonlocal analog proposed by Barles, Chasseigne and Imbert (JEMS'11). Following this last approach, our main contributions are a) Lipschitz regularity for unbounded solutions for fractional Hamilton-Jacobi equations; b) Liouville-type results for general fractional Hamilton-Jacobi/Reaction-diffusion equations; and c) Lipschitz estimates for the (variational) fractional p -Laplacian. Joint work with Anup Biswas (IISER-Pune, India) and Alexander Quaas (UTFSM, Chile).



INSTITUTO DE MATEMÁTICA

Universidade Federal do Rio de Janeiro