Programa de Pós-Graduação em Matemática

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SEMINÁRIO DE EDP e GD

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Sala 407 - Bloco H - 09h30
Campus do Gragoatá

Exact rate of acceleration in propagation determined by KPP equations with nonlocal diffusion and free boundaries

Yihong Du(University of New England, Australia)

Abstract: A new phenomenon in nonlocal diffusion models is that accelerated propagation may happen, that is, the propagation speed could be infinite, which never occurs in the corresponding local diffusion model with compactly supported initial data. In this talk we will look at such a phenomenon for the KPP equation with nonlocal diffusion and free boundaries. For several natural classes of kernel functions appearing in the nonlocal diffusion term, we will show how the exact rate of acceleration can be determined. The talk is based on joint works with Dr Wenjie Ni.

Juan Limaco and Detang Zhou