INTERNATIONAL BIWEEKLY ONLINE SEMINAR ON ANALYSIS,
DIFFERENTIAL EQUATIONS AND MATHEMATICAL PHYSICS

Coordinators: Prof. Alexey Karapetyants, Prof. Vladislav Kravchenko

JOIN THE SEMINAR

26 February 2026, 6 pm (UTC+3)

The De Giorgi-Nash-Moser theory for kinetic equations with nonlocal diffusion

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I will present some recent results for weak solutions to a wide class of kinetic integral equations, where the diffusion term in velocity is an integro-differential operator having nonnegative kernel of fractional order s in (0,1) with merely measurable coefficients. In particular, I will focus on Harnack-type inequalities for nonnegative weak solutions that does not require the usual a priori boundedness.
The talk is based on a series of papers by Anceschi, Kassmann, Piccinini, Weidner, and myself.

*Seminar website: https://msrn.sfedu.ru/sl. The seminar uses Microsoft Teams online platform.
Please send questions to ademp.seminar@gmail.com (Tatiana Andreeva, scientific secretary).

The seminar is organized by the coordinators Alexey Karapetyants and Vladislav Kravchenko within the activities of the Regional Mathematical Center of the Southern Federal University in collaboration with Institute of Mathematics, Mechanics and Computer Sciences of the Southern Federal University and the OTHA research group in Operator Theory and Harmonic Analysis.

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