

25-31 January 2027

UKRAINE-NASTRAN WINTER SCHOOL “NONLINEAR PARTIAL DIFFERENTIAL EQUATIONS”

Venue **Yuriy Fedkovych Chernivtsi National University**

The school offers lecture courses on nonlinear partial differential equations, covering integrable systems, continuation beyond wave breaking, elliptic and degenerate parabolic equations, fractional equations, stochastic fluid flows, and compensated compactness for conservation laws. An integrated mini-workshop will feature research talks by invited speakers and students, with time for discussion.

Lecture Courses

Compensated compactness for scalar conservation laws	**Giuseppe Maria Coclite,** Politecnico di Bari
Stochastic fluid flows	**Konstantina Trivisa,** University of Maryland
Riemann-Hilbert problems and applications to integrable PDE	**Dmitry Shepelsky,** B. Verkin Institute for Low Temperature Physics and Engineering of the NAS of Ukraine
Stampacchia's lemma and application in PDE analysis	**Roman Taranets,** Institute of Applied Mathematics and Mechanics of the NAS of Ukraine/Yuriy Fedkovych Chernivtsi National University
Introduction to fractional differential equations	**Nataliya Vasylyeva,** S.P. Timoshenko Institute of Mechanics of the NAS of Ukraine/Institute of Applied Mathematics and Mechanics of the NAS of Ukraine
Solutions of nonlinear PDE beyond blow-up	**Yan Rybalko,** University of Oslo/B. Verkin Institute for Low Temperature Physics and Engineering of the NAS of Ukraine

Homepage: https://npde.chnu.edu.ua/

Organizing and Scientific Committee

Kenneth H. Karlsen, University of Oslo

Dmitry Shepelsky, B. Verkin Institute for Low Temperature Physics and Engineering of the NAS of Ukraine

Olha Martynyuk, Yuriy Fedkovych Chernivtsi National University

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