



The Abdus Salam
**International Centre
 for Theoretical Physics**
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Advanced School & Workshop on Nonlocal Partial Differential Equations and Applications to Geometry, Physics and Probability

22 May – 2 June 2017
 (Miramare - Trieste, Italy)

The Abdus Salam International Centre for Theoretical Physics (ICTP) is organizing this School and Workshop above, to take place at the ICTP from 22 May to 2 June 2017.

The study of partial differential equation with nonlocal features is an extremely active area of research in analysis, with strong ties to other parts of mathematics, like differential geometry and probability theory, and with motivations in the most diverse scientific contexts: kinetic theory, fluid dynamics, quantum mechanics, materials science, biology etc.

The goal of the proposed activity is bringing together leading mathematicians working on different aspects of nonlocal PDEs in order to disseminate the state of the art on the subject through a mix of courses and talks.

The activities will include:

- **courses by:** Laurent Desvillettes (ENS Cachan), Yanyan Li (Rutgers University), Michael Loss (Georgia Tech), Enrico Valdinoci (University Melbourne);
- **short courses by:** Pierre Cardaliaguet (CNRS-U Paris-Dauphine), José Carrillo (Imperial College London), Alessio Figalli (ETH Zürich), Daniela Tonon (CEREMADE-U Paris-Dauphine);
- **regular talks by:** Anton Arnold (TU Wien), Xavier Cabre (ICREA and UP Catalunya), Vincent Calvez (ENS Lyon), Maria Carvalho (Rutgers University), Irene Gamba (University of Texas at Austin), Maxime Hauray (Université d'Aix-Marseille), Mikaela Iacobelli (University Cambridge), Jan Maas (IST Austria), Giuseppe Mingione (Università Parma), Stéphane Mischler (CNRS-U Paris-Dauphine), Yannick Sire (Johns Hopkins University), Giuseppe Toscani (Università Pavia), Alexis Vasseur (University of Texas at Austin), Juan Luis Vazquez (Universidad Autónoma de Madrid).

Topics: Kinetic theory, Boltzmann and Landau equations, conformally invariant elliptic PDE, fractional diffusion and fractional minimal surfaces, symmetry and symmetry breaking in variational problems.

GRANTS: A limited number of grants are available to support the travel and living expenses of selected participants, with priority given to participants working in a developing country and who are at the early stages of their career.

How to apply: the online form can be accessed at: <http://indico.ictp.it/event/7963/>

SECRETARIAT [smr3118]
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 Applications to Physics, Geometry and Probability**
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APPLICATION DEADLINE

5 February 2017

