The Galileo Galilei Institute for Theoretical Physics
Arcetri, Florence

Emergent Geometries from Strings and Quantum Fields

June 12, 2023 - July 30, 2023

The workshop gathers experts on the main geometric structures emerging from string and field theories, like Poisson, noncommutative and generalized geometries and open/closed string inspired (non)geometries as well as super geometry and 3d quantum geometries. Topological field theories, T- and U-dualities, supersymmetric field theories, superstrings, string field theory is a non-exhaustive list of topics where these new geometric tools emerged and inspired new directions.

Organizing Committee:
Paolo Aschieri, Università del Piemonte Orientale and INFN Torino
Francesco Bonechi, INFN Firenze
Alberto Cattaneo, Zurich University
Ron Donagi, University of Pennsylvania
Pietro Antonio Grassi, Università del Piemonte Orientale and INFN Torino
Catherine Meusburger, Erlangen-Nuernberg University
Richard Szabo, Heriot-Watt University, Edinburgh

Topics:

- Homotopical Methods in Quantum Field Theory
- Noncommutative Geometry
- Quantum Geometry and Topological Field Theories
- Super Geometry

Tentative Schedule:
1st week: Training Week
2nd week: Super Geometry
3rd week: Homotopical Methods in Quantum Field Theory and Quantum Geometry
4th week: Generalised and Higher Geometry
5th week: Noncommutative Geometry
6th week: Conference: Geometries from Strings and Fields
7th week: Running workshop

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GGI: http://www.ggi.infn.it/

Deadline for applications: February 28th, 2023