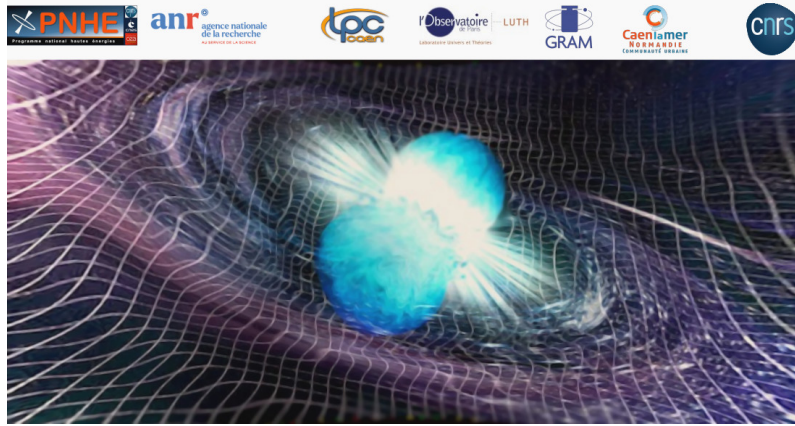


Thematic school GWsNS-2023: Gravitational Waves from Neutron Stars



lundi 5 juin 2023 - vendredi 9 juin 2023

Centre de colloques Paul Langevin

Programme Scientifique

Neutron star physics requires a broad spectrum of interdisciplinary skills (nuclear physics, hadronic physics, hydrodynamics, general relativity, statistical analysis) which are typically not all covered in a single master's program. The school format, with a **limited number of teachers**, will allow each instructor to develop the topics in detail and support them with exercises and numerical applications.

There will be theoretical lectures in the morning and practical sessions in the afternoon, plus sessions with contributions from young researchers before dinner. One evening is devoted to an outreach seminar on neutron star physics by Jerome Margueron (IP2I Lyon, France). Wednesday afternoon is dedicated to an easy hike on the beautiful mountains that surround Aussois.

Instructors and topics:

Tito **Dal Canton** (Virgo collaboration & IJCLab Orsay, France)
Gravitational wave sources and data analysis

Fiorella **Burgio** (INFN Catania, Italy)
Ultra-dense matter of neutron stars and supernovas

Gabriel **Martinez-Pinedo** (GSI & TU Darmstadt, Germany)
Heavy element nucleosynthesis in neutron star mergers and its electromagnetic signatures

Bruno **Giacomazzo** (University of Milano-Bicocca, Italy)
Numerical simulations of coalescing neutron star binaries

Pablo **Cerda-Duran** (University of Valencia, Spain)
Simulations of supernovae and gravitational wave emission from proto-neutron stars