## AMMINISTRAZIONE CENTRALE AREA RELAZIONI INTERNAZIONALI PROJECTS & MOBILITY OFFICE





Organising institution

Università degli Studi di Padova

Dipartimento di Fisica e astronomia "Galileo Galilei" - DFA

Prof. Roberto Volpato

Partner Institutions

NORDITA - Nordic Institute for Theoretical Physics (Sweden)

Trinity College - The University of Dublin (Ireland)

Course Title and Description

## Young Researchers School on exact approaches to string and field theory

The Young Researchers School is a series of schools in theoretical physics, which over the years has been held at the University of Durham, Trinity College Dublin, ETH Zurich, the University of Vienna and at the Deutsches Elektronen-SYnchrotron in Hamburg, with hundreds of participants in attendance.

Because of the pandemic, the activities of this school have been abruptly interrupted. In October 2022 a new edition of this school will be organized, in partnership with NORDITA in Stockholm and Trinity College Dublin. The 2022 edition will be an opportunity for students and PhD students in theoretical physics in Padua to come into direct contact with both the lecturers, chosen among the best junior group leaders and young researchers in the field, and with other students selected among the best of European students. The school comprises fivecourses taught by young researchers (Junior Group Leaders) with an international profile. The courses are organized as lectures and tutorials (group work) and will cover a key topic in theoretical physics: the development of techniques for the exact solution of field and string theories. The school will take place mainly Sweden at NORDITA and streaming classes will also be offered for the benefit of those who, for different reasons, cannot attend in person.

We offer five courses, each consisting of five 45-minute lessons on these topics. In addition, each day students will have time for individual study and exercises under the supervision of the teachers in special tutorial sessions.

List of courses

Course 1: Exactly-solvable conformal field theories Course 2: Exactly-solvable integrable models

Course 3: The integrable S matrix

Course 4: Mirror models and the spectrum Course 5: Form factors and correlation functions.

**Period** 24/10/2021 – 28/10/2021

ETCS credits N/A

Course fee N/A

Course Level Second year Master Degree course students