



GGI  
SCHOOL



9-27 JANUARY  
2023

## GGI LECTURES ON THE THEORY OF FUNDAMENTAL INTERACTIONS

Galileo Galilei Institute for Theoretical Physics - Firenze

### Organizers

**FRANCESCO D'ERAMO**  
(Padova U. & INFN)

**ROBERTO FRANCESCHINI**  
(Roma Tre U. & INFN)

**GIULIANO PANICO**  
(Firenze U. & INFN)

**DIEGO REDIGOLO**  
(INFN Firenze & CERN)

**GIULIA RICCIARDI**  
(Napoli Federico II U. & INFN)

**FRANCESCO RIVA**  
(Geneva U.)

### Lecturers and Topics

**TIMOTHY COHEN** (University of Oregon)  
*Effective Field Theories*

**EDWARD KOLB** (University of Chicago)  
*Gravitational Particle Production*

**LUCA LISTA** (University Napoli Federico II & INFN Napoli)  
*Statistical Methods for Data Analysis in Particle Physics*

**MARIANNA SAFRONOVA** (University of Delaware)  
*Tabletop Experiments*

**LUCA SILVESTRINI** (INFN Roma)  
*Precision Electroweak Physics*

**FRANCESCO VISSANI** (INFN Laboratori Gran Sasso)  
*Neutrino Physics*

The lectures are primarily addressed to Ph.D. students in High Energy Particle and Astroparticle Physics. The aim of the school is to give a pedagogical introduction to the basic concepts and tools needed for research, covering the foundations of the subject at a deep and advanced level.



The Galileo Galilei Institute for Theoretical Physics

Deadline for application: 24 October 2022  
<http://www.ggi.infn.it/ggilectures>