

ISTITUTO NAZIONALE DI ALTA MATEMATICA (INdAM)

XLIX Summer
School on
Mathematical
Physics

Gruppo Nazionale per la Fisica Matematica (GNFM)

Ravello
2 - 14 Settembre
2024

Courses:

Mauro Carfora
(Università di Pavia)
**"An Introduction to
Relativistic Cosmology"**
1a First Week (6 lectures)

Gaetano Lambiase
(Università di Salerno)
**"Extended Theories of Gravity
and Searching for New Physics"**
1b Second Week (6 lectures)

Keith Promislow
(Michigan State University)
**"Spectral stability of nonlinear
waves: essential spectrum
and semigroup estimates"**
2a First Week (6 lectures)

Todd Kapitula
(Calvin University)
**"Spectral stability of nonlinear
waves: point spectrum
and bifurcations"**
2b Second Week (6 lectures)

Grant M. Rotskoff
(Stanford University)
**"Building models
of machine learning with
mathematical physics"**
3a First Week (6 lectures)

Pierluigi Contucci
(Università di Bologna)
**"An introduction to the
statistical mechanics approach
to Artificial Intelligence"**
3b Second Week (6 lectures)

Alessandro Giuliani
(Università Roma Tre)
**"Universality of height
fluctuations in non-integrable
dimer models"**
4a First Week (6 lectures)

Fabio Toninelli
(Technical University of Vienna)
**"The dimer model: Glauber
dynamic and mixing times"**
4b Second Week (6 lectures)

The school's aim is to give introductory lectures by international experts in Mathematical Physics and Applied Mathematics. The school is mainly addressed to young researchers. Four courses will be given in a series of 12 lectures scheduled in the morning of each day.