

Exploring New Frontiers in Cosmology

06–31 July 2026

Organisers:

Eleonora Di Valentino (The University of Sheffield)

William Giarè (University of Hawaii)

Matteo Martinelli (INAF, Osservatorio Astronomico di Roma)

Vivian Poulin (CNRS, Université de Montpellier)

Elsa M. Teixeira (CNRS, Université de Montpellier)

Luca Visinelli (Università degli Studi di Salerno)



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Week 1: School

6th – 10th July

The goal is to build a shared foundation in the key observables, methods, and tensions shaping modern cosmology

Topics

- Supernova and the cosmic distance ladder
- CMB and next-generation surveys
- Large Scale Structure and BAO
- Dark Energy and Modified Gravity
- Cosmology with Gravitational Waves
- Numerical tools and parameter estimation

Lecturers

Dan Scolnic

Tristan L. Smith

Anna Porredon

Alessandra Silvestri

Antonella Palmese

Tanvi Karwal



How the week will work

6th – 10th July

- **We start at 9am every day!**
- Lectures and hands-on tutorials every day
- Student contributed talks on Friday afternoon
- Opportunities for discussion, asking questions and getting feedback
- Slack is our main channel for updates/materials
- Remote connection details on indico



Practical information

6th – 10th July

- Timetable on Indico and information/discussion on Slack
- Please check Slack/Indico regularly
- Lunches and coffee breaks are provided
- Bring your own laptop/charger for the hands-on sessions if possible
- Just ask the organisers if you have issues



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Thank you for coming and enjoy!

This week is meant to be interactive – ask questions, talk to the lecturers and to each other and enjoy Florence!