



**ICTP** | International Centre for Theoretical Physics  
**SAIFR** | South American Institute for Fundamental Research

**Campus of IFT-UNESP – São Paulo, Brazil**



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**University of Oxford, UK**  
*Large scale structure observables*



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**Niels Bohr Institute, Denmark**  
*A premiere on Gravitational Wave Cosmology*



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**Simmons Foundation and Princeton University, USA**  
*Machine Learning Methods for Cosmology*



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*Physics of Inflation*



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*Physics of the Cosmic Microwave Background*



**ROMAN SCOCCIMARRO**  
**New York University, USA**  
*Large scale structure theory*

## V JOINT ICTP-TRIESTE/ICTP-SAIFR SCHOOL ON COSMOLOGY

**July 28 – August 8, 2025**

Since the turn of the century, cosmology has become a data driven science. Several observational probes of the Universe, such as the cosmic microwave background, the large scale distribution of galaxies, the weak gravitational lensing of galaxy shapes, the mapping of supernovas, the number of clusters of galaxies and gravitational waves from coalescing binaries are being studied by different observatories to explore fundamental physics describing the nature of dark matter and dark energy. Moreover, new tools and data intensive techniques, like artificial intelligence and simulation based inference, are being developed and their potential for cosmological applications is yet to be fully explored.

This is the fifth edition of a joint ICTP-Trieste/ICTP-SAIFR two-week Cosmology School, aimed at providing students and young researchers with the necessary tools for understanding the current issues in modern cosmology and to familiarize them with how recent observations can be used to constrain different cosmological models and parameters.

There is no registration fee and limited funds are available for travel and local expenses.

**Application deadline:**  
**May 17, 2025**

**Online application and more information:**  
**[ictp-saifr.org/ictptriestesc2025](https://ictp-saifr.org/ictptriestesc2025)**



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