



International Centre for Theoretical Physics
South American Institute for Fundamental Research

Campus of IFT-UNESP - São Paulo, Brasil

ZVI BERN
UCLA, USA

Generalized unitarity and loops



NIMA ARKANI-HAMED
IAS Princeton, USA

Advanced topics in amplitudes



July 24 – August 4, 2023

**SCHOOL ON MODERN
AMPLITUDE METHODS
FOR GAUGE AND
GRAVITY THEORIES**

RICCARDO STURANI
ICTP-SAIFR/IFT-UNESP, Brazil

Basics of gravitational waves



DONAL O'CONNELL
Edinburgh U., Scotland

Double copy approach



JAROSLAV TRNKA
UC Davis, USA

Overview of scattering amplitudes



RADU ROIBAN
Pennsylvania State U., USA

Gravitational waves from amplitudes



Gauge theories and gravitational interactions form the basis of our current understanding of the universe. To realize them in a unified framework is a formidable task, yet common properties have been uncovered through a duality between color and kinematics and the subsequent double-copy perspective. More recently, observations of gravitational waves have triggered a surge of research in this field, and modern amplitudes-based techniques have been very useful for the general relativistic two-body problem.

In this advanced school, students will learn modern techniques for computing scattering amplitudes which are not usually seen in standard graduate courses, and will interact with renowned researchers in the field. Selected students will be invited to participate in the “QCD meets Gravity in the Southern Hemisphere” program which follows the two-week school.

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

Application deadline: May 14, 2023

Online application and more information:

www.ictp-saifr.org/aggt2023/



ORGANIZERS

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