



POLLICA
PHYSICS
CENTRE

14 > 25 September 2026

Scattering amplitudes

From positive geometries to analytic structures

Scattering amplitudes are central quantities in perturbative quantum field theories, yet many aspects of their mathematical structure remain unexplained. The aim of this workshop is to bring together experts on two aspects of their fundamental structure—the positivity properties they exhibit at the level of amplitude integrands, and the analytic features they manifest after integration—in order to deepen our understanding of how these surprising mathematical features are related. By stimulating further interaction between these communities, we will pave the way towards a new understanding of how the striking, and often defining, analytic features that amplitudes exhibit can be predicted directly from the study of positive geometries. Among other auspicious outcomes, this will have a transformative impact on methods for bootstrapping perturbative scattering amplitudes, which crucially rely on being able to make refined predictions about the analytic structure of individual amplitudes.

Organizing Committee

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Speakers include

Jacob Bourjaily
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Song He
(ITP-CAS Beijing)

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