ICTS | INTERNATIONAL CENTRE for THEORETICAL SCIENCES

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Seminar (HYBRID)

Title : Scattering amplitudes and holography

Speaker : Akshay Yelleshpur Srikant (University of Oxford)

Date : Wednesday, 03rd January 2024

Time : 03:00 PM (IST)

Abstract : The S-Matrix in flat space is a naturally holographic observable. S-Matrix elements or scattering amplitudes thus contain valuable information about the putative dual CFT. In this talk, I will explain how they can be converted to CFT correlation functions and some of their salient features. I will then focus on the link between collinear singularities of amplitudes and operator product expansions (OPEs) in the dual CFT. I will show how collinear singularities arising from loop corrections place stringent constraints on the OPEs and consequently the dual CFT. I will conclude with some discussion about the implications of the singularity structure of amplitudes on the nature of the dual CFT

Venue : **Offline:** Madhava Lecture Hall (ICTS)

Online: Please click on the below link to join the seminar

https://icts-res-in.zoom.us/j/88092766911?pwd=R3ZrVk9yeW96ZmQ4ZG9KRzVhenRKZz09

Meeting ID: 880 9276 6911

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