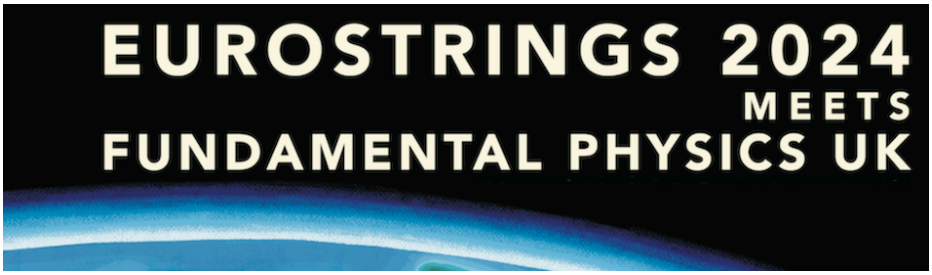

Contribution ID: **68** Type: **Talk in parallel session**

Soft factorization of scattering processes on AdS spacetimes

Friday 6 September 2024 14:30 (20 minutes)

Scattering amplitudes can be recovered in the AdS/CFT correspondence from CFT correlation functions by taking an infinite radius limit of the AdS spacetime. In this talk, I will discuss the soft factorization of scattering amplitudes in this limit. We first use 'classical soft theorems' to establish that soft photon and soft graviton factors involve inverse AdS radius corrections of the known leading flat spacetime soft factors. We then apply the AdS/CFT correspondence to derive the leading inverse AdS radius corrected soft photon factor from the U(1) Ward identity of a CFT. I'll conclude with a discussion on inverse AdS radius corrections of scattering amplitudes about the flat spacetime limit following ongoing work.

Link to publication (if applicable)

https://arxiv.org/pdf/2209.06802
https://arxiv.org/pdf/2102.06165

Authors: Dr MITRA, Arpita (POSTECH, South Korea); FERNANDES, Karan; Prof. BANERJEE, Nabamita (IISER-Bhopal, India)

Presenter: FERNANDES, Karan

Session Classification: Parallel sessions

Track Classification: Holography (flat) 3