



Department of  
Theoretical Physics

# THE QUANTUM SPACETIME SEMINAR SERIES

**Mass, Effective Operators and Locality in the Double Copy**

(Zoom Seminar)

**Shruti Paranjape**

(UC Davis)

**Date:** September 27, 2021

**Time:** 11.00 am IST

Zoom link shall be shared separately



The double copy is a web of relations between the scattering amplitudes of various quantum field theories. The original example was double-copying Yang-Mills to produce dilaton gravity. This was first discovered as the field theory limit of string theory KLT relations. In this limit, two features of the KLT relations are lost - higher derivative corrections and massive states. In this talk, we will discuss how one can generalize the field theory double copy to include effective field theories and theories with mass, via manipulations of the KLT kernel.