



Department of  
Theoretical Physics

# ***THE QUANTUM SPACETIME SEMINAR SERIES***

**Asymptotic Symmetries of gravity and  
soft theorems.**

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**Date:** Aug 29, 2016  
**Time:** 11.30 am  
**Venue:** A-304, TIFR



(Duration and Location are subject to irreducible jitter)

In 2013, Strominger gave a Proposal for the symmetry group of Quantum Gravity S-matrix, which was derived from the well known BMS (Bondi-Matzner-Sachs) group of classical General Relativity. This work led to a beautiful equivalence between Weinberg's soft graviton theorem in (perturbative) quantum gravity and Ward identities associated to so-called Super-translation symmetries.

In this talk , I will review this and other recent developments which point towards understanding the symmetries of perturbative quantum gravity by analysing various soft theorems.

This talk is based on recent joint work with Miguel Campiglia.