



Department of
Theoretical Physics

THE QUANTUM SPACETIME SEMINAR SERIES

Tensionless Strings: Closed and Open

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Date: October 28, 2024

Time: 11.00 AM IST

Venue: A304

Zoom link shall be shared separately



In this talk, I will explore the tensionless sector of both closed and open bosonic string theory. First, I will provide an overview of bosonic closed strings, focusing on the physical state conditions under the 2d Carrollian Conformal or BMS_3 worldsheet gauge symmetry. This leads to three distinct quantum vacua, for which I will derive the compactified mass spectrum and analyze the effects of the Kalb-Ramond background field, including its impact on duality symmetries. The focus will then shift to tensionless open strings, where I will present the construction of open null strings. Under Dirichlet boundary conditions, I will show that the Boundary Carrollian Conformal Algebra (BCCA) emerges as the algebra of constraints and explain how these results can be recovered by taking the null limit of tensile open strings.