



Department of
Theoretical Physics

The Quantum Space-Time Seminar

The gravitational index for a small black ring

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Date and time: 11 AM, 10 Nov 2025 (Mon)
Venue: A 304

The zoom link will be sent separately.



Certain supersymmetric elementary string states with angular momentum can be viewed as small black rings in a five-dimensional string theory. These black rings have a zero area event horizon. The 4D-5D connection relates these small rings to small black holes without angular momentum in one less dimension. Recent works have proposed saddle solutions that compute the supersymmetric index for small black holes using gravitational path integral. In this talk, I will discuss how one can find saddle solutions for small black rings. I will discuss the properties of this saddle solution and how this complex saddle solution fits into known classification schemes for supersymmetric solutions.