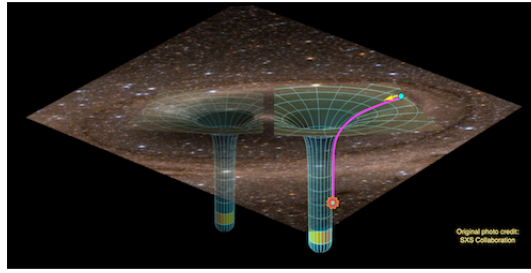


BLACK-HOLE MICROSTRUCTURE



ID de Contribution: 7

Type: **Non spécifié**

Stringy Structure at the BPS Bound

mardi 9 juin 2020 16:00 (1 heure)

We explore the stringy structure of $1/2$ -BPS states in little string theory and its AdS3 limit using worldsheet techniques. Duality in the worldsheet theory maps the geometrical (Lunin-Mathur) description of these states to a non-compact Landau-Ginsburg model whose superpotential is determined by the fivebrane source configuration. Singular limits of the $1/2$ -BPS configuration space result when the fivebrane worldvolume self-intersects, as can be seen from both sides of the duality – on the Landau-Ginsburg side from the degeneration of the superpotential, and on the geometrical side from an analysis of D-brane probes. These singular limits are a portal to black hole formation via the condensation of the W-branes that are becoming massless, and thus exhibit in the gravitational bulk description the central actors in the non-gravitational dual theory underlying black hole thermodynamics.

Recorded Version: <https://youtu.be/MI5-c5-HLC0?t=5330>

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