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The long string at the stretched horizon and the entropy of large non-extremal black holes

We discuss how long strings can arise at the stretched horizon and how they can account for the Bekenstein-Hawking entropy. We use the thermal scalar field theory to derive the asymptotic density of states and corresponding stress tensor of a microcanonical long string gas in Rindler space.

We show that the equality of the Hagedorn and Hawking temperatures gives rise to the tree-level entropy of large black holes in accordance with the Bekenstein-Hawking-Wald formula.

Experimental Collaboration

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