

BLACK-HOLE MICROSTRUCTURE



Contribution ID: 18

Type: not specified

Is structure at the horizon required to resolve the information paradox?

Friday, 12 June 2020 14:30 (1 hour)

We will describe recent work on how quantum information is stored in quantum gravity in asymptotically flat space. We will argue that all information that is available on future null infinity can also be obtained from a small region near its past boundary. This can be physically understood as the statement that information about the black hole microstate is always available outside the black hole. We also show how one can sidestep the “small corrections theorem”, and resolve the “bags of gold paradox”. In particular, this means that the information paradox, by itself, cannot provide a reason for expecting “structure” near the black-hole horizon.

Recorded version <https://youtu.be/7rvMkqVBhbY>

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