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## **(U\*) Extracting mutual information from a BTZ black hole spacetime**

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Two particle detectors locally interacting with a quantum field can be correlated, even if they are spacelike separated, due to pre-existing field correlations. Such an extraction protocol is called entanglement harvesting. Less well-studied is extraction of more general correlations, as parametrized by mutual information (the total classical and quantum correlations). We investigate the mutual information harvested by two pointlike particle detectors (or qubits) from a massless scalar field in a black hole spacetime. We consider the (2+1)-dimensional BTZ black hole, placing the detectors at different separations from and angles around the black hole. We compute the mutual information for these various settings. In conjunction with previous studies of harvested entanglement for this case, we obtain a more complete picture of the structure of scalar field vacuum correlations in the vicinity of a black hole.

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