

BLACK-HOLE MICROSTRUCTURE



ID de Contribution: 5

Type: **Non spécifié**

Chaos at the rim of black hole and fuzzball shadows

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We study the scattering of massless probes in the vicinity of the photon-sphere of asymptotically AdS/flat black holes and horizon-free microstate geometries (fuzzballs). We find that these exhibit a chaotic behaviour characterised by exponentially large deviations of nearby trajectories and compute the Lyapunov exponent λ governing the exponential growth. We find that fuzzballs and JMART geometries are characterised by Lyapunov exponents smaller than those associated to Black holes with the same mass providing evidence for the existence of a universal bound on chaos.

Recorded version: <http://www.youtube.com/watch?v=jAtq0gO9DSE>

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