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Universal Polarization of the Photon Ring

Thursday, 8 July 2021 17:40 (30 minutes)

Black hole images are dominated by a “photon ring,” a ring of light with universal properties that are completely governed by general relativity. This talk will discuss the universal features of polarimetric images of black holes. In particular, the photon ring exhibits a self-similar pattern of polarization that encodes the black hole spin. The corresponding polarimetric signatures on long interferometric baselines, extending to space, allow for measurements of the black hole spin using a sparse interferometric array.

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