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## Analyzing Shadows of Naked Singularities and Black Holes

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We investigate the shadows produced by naked singularity spacetimes. Most analytical solutions for black hole shadows have focused on scenarios where the geodesic equations for photons. We examine the spherical null naked singularity metric, which is a spherically symmetric solution to Einstein's equations. Additionally, we consider a static, axially symmetric singular solution of the vacuum Einstein equations that can describe the gravitational field outside a mass distribution with a quadrupole moment, and which also lacks an event horizon. This spacetime is marked by the presence of naked singularities. Theoretical studies indicate that shadows can be cast not only by black holes but also by other compact objects such as naked singularities and boson stars. We provide an analytical calculation of the shadows for both types of naked singularity spacetimes and compare them with the shadow of a Schwarzschild static black hole. Our findings indicate that these shadows can serve as mimics for black holes.

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