

Quantum black holes and resolution of the singularity

We present a simple quantum description of compact sources and black holes in which the General Relativistic exterior is reproduced by coherent states but the classical central singularity cannot be resolved because modes of arbitrarily short wavelength are not populated. Quantum corrections to the outer potential are also estimated, which could result in observable effects for the gravitational collapse of compact objects and both astrophysical and microscopic black holes.

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