

# Quantum Schwarzschild-(A)dS and Kerr-(A)dS Spacetimes

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We study the effects of quantum gravity on black hole geometries within the set-up of asymptotically safe quantum gravity. Quantum effects are taken into account by promoting Newtons and the cosmological constant to scale-dependent functions, arriving at a quantum-improved metric for Schwarzschild-(A)dS and Kerr-(A)dS. Implications for the causal structure, the curvature singularity and thermodynamics together with the evaporation process will be addressed.