

Iosif Bena: Black Holes, where Quantum Mechanics and General Relativity clash

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Einstein's General Relativity applied to black holes appears to lead to Information loss, thus violating one of the fundamental tenets of Quantum Mechanics. Recent Quantum Information Theory based arguments imply that information loss can only be avoided if at the scale of the black hole horizon there exists a structure (commonly called fuzzball or firewall) that allows information to escape. I will discuss the highly-unusual properties that this structure must have and how this structure is realized for certain String Theory black holes.