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### **Unitarity and Holography in Gravitational Physics**

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Because the gravitational Hamiltonian is a pure boundary term on-shell, asymptotic gravitational fields store information in a manner not possible in local field theories. This fact suggests 1) a gravitational explanation of “holography” as described by AdS/CFT and 2) a mechanism through which black hole evaporation can be unitary without introducing new non-local physics.