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# Dynamics of Quasilocal Horizons: Black Hole and Cosmological

Black holes are described as regions from which light cannot escape to an asymptotically faraway observer, and the boundary of this black hole region is called an Event Horizon (EH). During the 70s-80s, the EH formulation had been used to study classical and quantum properties of black holes, including their thermodynamics. However, it has been understood that EH are teleological; their present dynamics depend on boundary conditions set at the future and hence, are not particularly suitable to understand dynamics. Therefore, it has become increasingly important that an alternate definition which is local in both space and time be used instead. The quasilocal formalism of Dynamical Horizons, based on Penrose's idea of trapped surface provides an ideal framework to study the gravitational dynamics of horizons. We shall take a large number of examples to establish that indeed both the black hole and the cosmological horizon may be viewed as the time development of trapped surfaces.

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