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*Supersymmetric isolated horizons*

Black holes that are in equilibrium with their surroundings are necessarily bounded by isolated horizons: non-expanding null hypersurfaces whose cross-sections are compact spacelike surfaces. Over the last decade this formalism has become a standard tool used in the study of classical and quantum gravity. In this talk I will discuss a recent application of isolated horizons to the study of supersymmetric black holes. Results include the fact that supersymmetric isolated horizons are necessarily extremal and have severely restricted geometry, electromagnetic charges and angular momentum.