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Horizon Constraints and Stringy Black Holes[1] STEVEN CARLIP, University of California at Davis — To ask a question about a black hole in quantum gravity, one must constrain initial or boundary data to ensure that a suitable black hole is actually present. In a canonical formalism, such a new constraint can alter the algebra of diffeomorphisms, leading to the appearance of "Goldstone boson-like" physical degrees of freedom. I show that this modified algebra can be matched to known properties of a large class of string theoretical black holes, allowing a simple picture of their thermodynamics.

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