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A local Hamiltonian for spherically symmetric gravity coupled to a scalar field JORGE PULLIN, Louisiana State University, NESTOR ALVAREZ, RODOLFO GAMBINI, Universidad de la Republica Oriental del Uruguay — Using Ashtekar's new variables we present a gauge fixing that achieves the longstanding goal of making gravity coupled to a scalar field in spherical symmetry endowed with a local Hamiltonian. It opens the possibility of direct quantization for a system that can accommodate black hole evaporation. The gauge fixing can be applied to other systems as well.

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