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Rachel Maitra* (maitrar@wit.edu), 550 Huntington Ave, Boston, MA 02115, and **John Haga** (hagaj@wit.edu), 550 Huntington Ave, Boston, MA 02115. *Factor ordering and path integral measure for quantum gravity in (1+1) dimensions.*

We develop a mathematically rigorous path integral representation of the time evolution operator for a model of (1+1)d quantum gravity that incorporates factor ordering ambiguity. In obtaining a suitable propagator, one requires that the corresponding Hamiltonian is self adjoint; this issue is subtle for a particular category of factor orderings. We present a method of identifying and parametrizing a complete set of self-adjoint extensions and provide a canonical description of these extensions in terms of boundary conditions; our technique is quite general and can likely be extended to higher dimensional models. (Received September 20, 2016)