

Abstract Submitted  
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**The JWKB approximation in loop quantum cosmology** DAVID CRAIG, Le Moyne College, PARAMPREET SINGH, Louisiana State University — We explore the JWKB approximation in loop quantum cosmology in a flat universe with a scalar matter source. Exact solutions of the quantum constraint are studied at small volume in the JWKB approximation in order to assess the probability of tunneling to small or zero volume. Novel features of the approximation are discussed which appear due to the fact that the model is effectively a two-dimensional dynamical system. Based on collaborative work with Parampreet Singh.

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