

# Taking the continuum limit in Lattice Quantum Gravity

*Monday, 23 July 2018 14:00 (20 minutes)*

We present a study of the relative lattice spacing of different ensembles in the Euclidean dynamical triangulations approach to quantum gravity. We study the quantum fluctuations of the semiclassical backgrounds about de Sitter space following a similar analysis in causal dynamical triangulations and show how this can be used to determine the relative lattice spacing in our analysis. The agreement between this determination of the relative lattice spacing and that coming from a diffusion process lends support to the quantum gravity interpretation of our lattice formulation.

**Primary author:** LAIHO, Jack (University of Glasgow)

**Co-author:** Mr BASSLER, Scott (Syracuse University)

**Presenter:** LAIHO, Jack (University of Glasgow)

**Session Classification:** Applications beyond QCD

**Track Classification:** Applications Beyond QCD