

## General Relativity and Quantum Cosmology

# Spacetime rejects superposition due to discreteness

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(Submitted on 27 Jan 2010)

The existence of a minimum size of spacetime is generally considered as an indispensable element in a complete theory of quantum gravity. In this essay we will analyze one of its implications for quantum gravity in terms of a minimum explanation. It is shown that the discreteness of spacetime may result in the collapse of the wave function and prohibit the superposition of different spacetimes. As a result, quantum and gravity may be combined with the help of quantum collapse in discrete spacetime.

Comments: 6 pages, no figures

Subjects: **General Relativity and Quantum Cosmology (gr-qc)**; Quantum Physics (quant-ph)

Cite as: [arXiv:1001.4857v1](#) [gr-qc]

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From: Sheldon Gao [[view email](#)]

[v1] Wed, 27 Jan 2010 05:42:29 GMT (56kb)

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