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Regge Calculus and the Quantum Computational Universe

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This talk examines the use of Regge Calculus as a tool to embed a quantum computational network into a spacetime manifold. After briefly describing Seth Lloyd's recent model Computational Universe model for spacetime histories, and introducing some basic features of Regge Calculus, we will explore the use null edges in Regge Calculus. Special attention will be focused on the coupling of the Regge equations to the computational network. In particular, we examine the right-hand side of the Regge equations and the coupling of the source in a lattice spacetime.

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