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Contribution ID: 3730 Type: **Oral Competition (Graduate Student) / Compétition orale (Étudiant(e) du 2e ou 3e cycle)**

(G*) Discretized Spherical Symmetry via LQG

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Following the techniques of canonical loop quantum gravity, a full Thiemann regularization is performed on the scalar constraint of classical general relativity. The regularized Hamiltonian is then considered for a general spherically-symmetric spacetime, without recourse to additional gauge-fixing conditions commonly imposed to aid in computing the radial holonomies. By investigating the form of the modified scalar constraint in various contexts, including cosmological and black hole spacetimes, we develop an effective framework for the dynamics of spherically-symmetric spacetimes endowed with an underlying discrete structure.

Keyword-1

quantum gravity

Keyword-2

black holes

Keyword-3

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