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A model of polymer gravitational waves: theory and some possible observational consequences

Monday, 5 July 2021 18:00 (30 minutes)

We derive the effective polymer Hamiltonian of gravitational waves propagating on an FLRW background. We overcome the problem of polymerizing a time-dependent system by using a novel approach by using the extended phase space approach. Using the resulting Hamiltonian, we study some of the possible observational consequences of such a polymerized gravitational wave Hamiltonian.

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