



General Relativity and Quantum Cosmology

# Holonomy observables in Ponzano-Regge type state sum models

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We study observables on group elements in the Ponzano-Regge model. We show that these observables have a natural interpretation in terms of Feynman diagrams on a sphere and contrast them to the well studied observables on the spin labels. We elucidate this interpretation by showing how they arise from the no-gravity limit of the Turaev-Viro model and Chern-Simons theory.

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