

Abstract Submitted
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Photon Dispersion in Quantum Gravity JOEY CONTRERAS, MICHAEL BISHOP, JAEYEONG LEE, DOUGLAS SINGLETON, California State University, Fresno — Generic quantum gravity models predict minimal length scales that will lead to photon dispersion. The idea being that photons of different energies will interact with the vacuum of space and experience a shift in their velocities. When observing the arrival times of photons from gamma ray bursts however, no such dispersion is observed so it appears there is no minimal length scale. However we have a model that accounts for this lack of photon dispersion and yet still predicts the existence of a minimal length.

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