

Abstract Submitted  
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**Minimum Length Via Modified Operators** JOEY CONTRERAS, DOUGLAS SINGLETON, MICHAEL BISHOP, California State University, Fresno, JAEYONG LEE, Williams and Mary — Quantum Gravity theories sometimes predict the existence of minimal length. If this were to be the case one would suspect a type of photon dispersion where, due to interactions with the foam of spacetime, the photon would have energy-dependent velocities. However current observational data shows no such dispersion. We then propose an alternate theory that allows for minimal length via bound momentum operators and modified position operators that allows for minimal length and exhibits no such dispersion. Which results in a theory that isn't constrained by observational data in the same way that other models are.

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