## Abstract Submitted for the APR20 Meeting of The American Physical Society

TheoreticalGravity:GravitonDy-namicsGEORGE SCHUHMANN<sup>1</sup>, Univ of Louisville — This analysis exploresgravitons from a particle perspective and examines how relativistic particle dynamicsics applied to gravitons can be seen to reproduce the observed effects of gravity.Individual gravitons are seen as massless quanta (like photons) that have energy inthe form of momentum in accord with Special Relativity's E = pc. A hypotheticalfield of gravitons is posited as a dynamic relativistic gas interacting with massiveparticles.Cosmological implications are presented, and an idealized experiment todetect individual graviton interactions is proposed.

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