

# STOE “hod” is the quantum “graviton”

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## Abstract

The graviton in quantum models is a particle or force carrier that accounts for the gravitational force. The “hod” in the Scalar Theory of Everything (STOE) is the component of the universe that is the most fundamental particle. The structure of hods emerge to form photons and other particles. This provides the unification of the big and the small. Many observations are explained such as interference of particles and galaxy’s asymmetric rotation curves.

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Physicists have been struggling to find a fundamental approach to uniting cosmology and quantum worlds. The “graviton” is the name given to a hypothetical quantum particle that results in the force of gravity in Quantum Mechanics (QM), the world of the small. Such a particle would help unite cosmology with QM.

The other issue of QM is the probability interpretation. Physics modeling could be aided by finding causality relations beyond the mathematics [Adlam 2022; Hodge 2022].

The Scalar Theory of Everything (STOE) posits the components of the universe are discrete hods and a continuous plenum that is a medium similar to Newton’s aether [Hodge 2020]. The entire universe emerges (strong emergence) from the two components and their interaction [Hodge 2016b]. The STOE corresponds to both the cosmology and quantum models and explains many problem observations. The STOE is causative, Machian, and Euclidian with three special dimensions.

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The plenum directs hods, and supports waves. Hods are 2 dimensional and magnetic. Particles are assemblies of hods [Hodge 2016a]. The magnetic (plenum) field evolves to become the gravity field [Hodge 2019].

This paper suggests the requirements of the “graviton” are satisfied by the characteristics of the STOE “hod”. This provides the unification of the big and the small. Many observations are explained such as interference of particles [Hodge 2012] and galaxy’s asymmetric rotation curves [Hodge 2006].

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