Abstract Submitted
for the NWS16 Meeting of
The American Physical Society

Unification of Quantum Mechanics and General Relativity: Geometrical Nature of Matter and Multiple Levels of Universes SHAHRAM KHOSRAVI, Alumnus (PhD in physics) of Texas A&M University — Spacetimematter is a five dimensional geometry where matter is baked into geometry as a new dimension. Every event point of spacetimematter follows the uncertainty principle, which limits the accuracy of the measurement of its space, time, and matter coordinates turning it into a Space-Time-Matter (STM) geometrical quantum with space, time, and matter edges. The Universe consists of a hierarchical levels of universes where each level has its own level of spacetimematter and quantum state functions. I'll show that non-ordinary matter and energy coming from the non-zeroth levels of universes together form the dark matter and dark energy. I'll present new quantum and general relativity field equations for each level of universe which together unify quantum mechanics and general relativity and the four fundamental forces of nature. I'll then use actual astronomical data and a simple theoretical model to derive the physical constants of the first level of universe and show that they vary from their counterparts in the zeroth level of universe (i.e. ordinary universe). I'll also provide a quantum mechanism for black hole characteristics such as singularity and space-time reversal and show how my approach resolves black hole information paradox.

Shahram Khosravi
Alumnus (PhD in physics) of Texas A&M University

Date submitted: 11 May 2016 Electronic form version 1.4