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

Disrupting the standard model, from quarks to cosmos, by a quantum 4-waves theory CLAUDE MASSOT, Retired, Independent Research Scientist — History shows, each century, big disruptions of the concepts of Reality. Insulated from competition by its Standard Model, a stifling peer review system and, stalemated within quantum incompatible relativistic foundations, Theoretical Physics, might need a change. In 1994, my Hypothesis of a Complex Nature of Matter, was presented at the French Academy of Sciences. This led me to build a quantum non relativistic, 4-waves Mechanics adding, thanks to Quaternion Algebra, a spin-wave and a helicity-wave, (especially at high energy), to de Broglie's translational and inertial waves. My Quantum 4-Waves Theory, unifies elementary forces and laws by updating and rehabilitating the genial Rutherford's approach, rejects the reality of quarks, structures electrons, protons, neutrons and remodels the nucleus. In cosmology, my theory disclaims gravitation as space time curvature, the red shift as a Doppler effect, the concepts of black holes, dark matter, dark energy, the Big Bang and the expanding Universe.

Claude Massot Retired

Date submitted: 19 Jan 2020 Electronic form version 1.4