

EXTENDED QUANTUM THEORY

S. S. Sannikov-Proskuryakov

National Scientific Center
"Kharkiv Institute of Physics and Technology"
(1, Academichna Str., Kharkiv 61108, Ukraine)

It is shown in [2] that, besides the Heisenberg - Schrodinger quantum mechanics at moderate energies (MEQM), there exist else two quantum theories: high-energy quantum mechanics (HEQM) and low-energy one (LEQM) completed the first by natural way. In the latter, the well-known symmetry between the configuration and momentum spaces, inherent in MEQM, is broken. In this paper, the connection between these three theories is established (briefly, the complete theory is called EQ-theory). HEQM is well adapted to the description of particle constituents - granules. The connection of these objects playing the role of hidden entities with particles and their dynamical structure and physical properties is made clear. This dynamical structure breaks such laws of laboratory (Lagrangian) physics as the conservation of energy, fermionic charge, and probability. It causes also the P , C , T and fermion-antifermion asymmetry of our Universe.