On a Mass-Charge Structure of Gauge Invariance RASULKHOZHA
S. SHARAFIDDINOV, Institute of Nuclear Physics, Uzbekistan Academy of Sci-
ences, Tashkent, 100214 Ulugbek, Uzbekistan — The mathematical logic of a true
nature of mirror symmetry expresses, in the case of the Dirac Lagrangian, the idea
about that the left- and right-handed photons, respectively, refer to long- and short-
lived particles. Such a difference in lifetimes says about that the photons of the
different components have the unidentical masses, energies and momenta. This re-
quires the generalization of the classical Klein-Gordon equation to the case of all
types of bosons with a nonzero spin. The latter together with a new Dirac equation
admits the existence of the second type of the local gauge transformation responsible
for origination in the Lagrangian of an interaction Newton component which gives
an inertial mass to all the interacting matter fields. The quantum mass operator
and the mirror presentation of the classical Schrödinger equation suggest one more
highly important equation. Findings show clearly that each of the quantum mass,
energy and momentum operators can individually act to the wave function. They
constitute herewith the Euler-Lagrange equation at the level of the mass-charge
structure of gauge invariance.

Rasulkhozha S. Sharafiddinov
Institute of Nuclear Physics, Uzbekistan Academy of Sciences,
Tashkent, 100214 Ulugbek, Uzbekistan