Family Structure of Nucleons RASULKHOZHA S. SHARAFIDDI-
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tons and hadrons with virtual gauge bosons can symbolically be expressed in the
form of a sum of vector and axial-vector parts of the same charge or dipole moment.
This does not imply of course that the same neutron or proton must be simultane-
ously both a C-even and a C-odd nucleon. We have, thus, a full analogy to the fact
that a classification of elementary particles with respect to C-operation admits the
existence of the two types of Dirac fermions of the vector and axial-vector nature.
If such objects are the neutrons and protons, they will constitute the nucleonic fam-
ilies of a different C-invariance. One group consists of C-even nucleons of vector
currents. The second class includes the truly neutral C-odd nucleons of axial-vector
currents. The family structure of both types of nucleons and leptons testifies that
vector neutron and neutrino possess the same CP-odd electric charge. In contrast
to this, truly neutral neutron and neutrino do not distinguish from one another by
the availability in them of an equal CP-even electric charge.

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