6th World Congress on

Physics

May 13-14, 2019 | Paris, France

Motley string theory and the standard model

George Yury Matveev Independent Researcher, Sweden

Il known String models (Bosonic, Super String, Heterotic) are formulated in multi-dimensional space Ttime. To get to realistic and observable 4-dimensional world requires new type of theory. To avoid all inconsistencies present in known approaches to compactification we propose "Motley String" model, which treats all spatial dimensions equally and complies with known experimental material. First, we formulated two postulates: Postulate 1: Every spatial dimension of string has unique intrinsic property which we call "color". Postulate 2: There is force between spatial dimensions of string such that it makes dimensions of complementary colors (Redi, Greeni, and Bluei) interact and unite in colorless threads perceived as observable dimensions. Motley String theory and idea of "colorful" spacial dimensions introduced in this article offers consistent and uniform approach to compactification problem present in all string models (Superstring, Bosonic, and Heterotic). It eliminates inconsistencies of compactification mechanisms proposed earlier (Kaluza-Klein, Calabi-Yau manifolds, etc.). Also it solves several major problems present in the Standard Model and Cosmology: explains number of particle generations (six quarks and six leptons) of Standard Model; explains fractional charges of quarks and quark/gluon confinement; establishes the link between Multi-dimensional String theories and observable 4-dimensional world; offers alternative to Higgs mechanism for particles mass generation and thus, explains neutrino's mass and experimentally observed neutrino oscillations; offers single mechanisms for both quark mixing and neutrino's oscillations and thus explains quite different values for non-diagonal entries of Cabibbo (quarks) and Pontecorvo (neutrinos) mixing matrices; offers solution for "dark" matter/energy problem of modern astrophysics.