Neutrino Physics with a Hadronic Connection

Ernest Ma*

¹Physics & Astronomy Department and Graduate Division
University of California, Riverside, California 92521, USA

²HKUST Jockey Club Institute for Advanced Study, Hong Kong

*ma@physics.ucr.edu

Among the possible scalar bilinears of the Standard Model, those involving neu-trinos play a special role. They imply the existence of leptoquarks and together with diquarks, they provide a two-loop mechanism for neutrino mass. Neutrinos may also interact with the dark-matter sector, which may consist of particles analogous to scalar quarks. Production and decay of these particles at a future hadron collider may reveal the true nature of dark matter.