New Democratic Neutrino Theory

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Tuesday, January 28 ◆ 4:00 P.M. Room 415 Nieuwland Science Hall

I will introduce new democratic neutrino theory, which has only one free parameter in contrast to 7 (9) free parameters in the conventional model of Dirac (Majorana) neutrino masses and mixing. Taking into account the incoherence and matter effects, this new theory agrees with the atmospheric and solar neutrino data, and sets the absolute scale of the neutrino masses at about 0.03 eV. I will discuss the agreement with the reactor neutrino data, and the predictions of this theory for low energy beta decays, magnetic moments, and neutrinoless double beta decays.