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Neutrino masses and magnetic moments of electron and muon in the Zee Model

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In this work, we explore parameter space in the Zee Model to resolve the long-standing tension of the electron and muon anomalous magnetic moment (AMM). We propose two minimal flavor structures that can explain these anomalies while fitting the neutrino oscillation data. To be comprehensive, we examine the constraints from the electric dipole moment (EDM) and find a region of parameter space that gives a sizable contribution to muon EDM while simultaneously giving corrections to muon AMM. The model is consistent with constraints from colliders, electroweak precision data, and lepton flavor violation.

Authors: Dr BARMAN, Rahool Kumar (Oklahoma State University); DCRUZ, Ritu (Oklahoma State University); Dr THAPA, Anil (Oklahoma State University)

Presenter: DCRUZ, Ritu (Oklahoma State University)

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