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Accommodate the Neutrino Mixing Angle θ_{13} within SU(5)[1] JUE ZHANG, JENNIFER KILE, JAY PEREZ, PIERRE RAMOND, Univ of Florida - Gainesville — Tri-bimaximal, Golden Ratio or Bimaximal matrix has long been considered as a good leading order parametrization for the neutrino mixing matrix. However, the recent discovery of non-zero θ_{13} neutrino mixing angle requires corrections to these leading order parametrizations. Those corrections may come from the quark sector, as in Grand Unified Theories Yukawa couplings of quarks and leptons are closely related. To explore this possibility, we perform a numerical search with the guidance of SU(5), and indeed find some solutions that can accommodate current neutrino data.

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