

Non zero θ_{13} and δ_{CP} in a realistic neutrino mass model with discrete A_4 family symmetry and perturbation to Tri-bimaximal mixing via $z_2 \times z_2$ invariant perturbation in the neutrino sector.

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In this work, a flavour theory, of a neutrino mass model implementing an A_4 family symmetry is proposed. This scheme provides a simple way to derive tribimaximal mixing in the neutrino sector via spontaneous breaking of A_4 symmetric model leading to acceptable values of θ_{13} and maximal CP violation. A $z_2 \times z_2$ invariant perturbations in this model is introduced in the neutrino sector which leads to testable predictions of θ_{13} and CP violation. By changing the magnitudes of perturbations in neutrino sector, one can generate viable values of θ_{13} and neutrino oscillation parameters.

What is your topic?

Physics beyond the Standard Model

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