

Non-holomorphic modular \mathcal{A}_4 symmetric scotogenic model

Wednesday, 27 August 2025 12:00 (20 minutes)

The present talk will cover an extension of a scotogenic and its modular \mathcal{A}_4 variation a step forward and demonstrates scotogenic modular \mathcal{A}_4 non-supersymmetric realization. To achieve this non-holomorphic modular symmetries come to rescue. Advantage of the current construction is the compactness of the model content and absence of the supersymmetric fields. Neutrino mass is generated through a canonical scotogenic mechanism. The allowed values of the VEV of the τ modulus are $\tau \simeq w$ and $\text{Im}[\tau] \approx 2$. The non-holomorphic modular \mathcal{A}_4 symmetry leads to correlations among the neutrino observables.

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