

FLASY 2025 - 11th Workshop on Flavour Symmetries and Consequences in Accelerators and Cosmology



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Revisiting a Flavor Model with Dark Matter and Leptogenesis

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We revisit a supersymmetric flavor model, where realistic lepton mass matrices arise from specific flavon vacuum alignments. The model accommodates both dark matter and baryogenesis: the lightest flavino acts as a dark matter candidate, and the observed baryon asymmetry is generated via thermal leptogenesis with next-to-leading order Yukawa interactions. We show that the model is consistent with neutrino oscillation data, relic abundance, and lepton flavor violation constraints. Implications for future experiments are also discussed.

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