

# FLASY 2018: 7th Workshop on Flavour Symmetries and Consequences in Accelerators and Cosmology



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## Fully Constrained Majorana Neutrino Mass Matrices Using Sigma(72x3)

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In many flavour models, the vacuum expectation values of flavon multiplets form the fermion mass matrices. The VEVs and their symmetries lead to constraints among the masses and the mixing observables. The presence of coupling constants (corresponding to various flavon multiplets) leaves some degrees of freedom of the mass matrices unconstrained. Recently we introduced a single sextet of Sigma(72x3) as a convenient flavon multiplet to represent the entire complex symmetric Majorana neutrino mass matrix. In this scenario, the flavon VEV fully constrains the mass matrix. In 2012, we introduced a set of four Majorana neutrino mass matrices which give rise to non-zero  $\theta_{13}$  (consistent with the Daya Bay results). Being fully constrained, these mass matrices also predicted the neutrino mass ratios. Here we use the framework of the Sigma(72x3)-sextet to construct a model which reproduces the above set of Majorana mass matrices.

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