Contribution ID: **105** Type: **Poster**

What can modular flavour symmetries do for you?

Thursday, 4 April 2024 16:19 (1 minute)

In recent years, modular invariance has been applied to the SM flavour puzzle, yielding compelling results. In this paradigm, one does not need a multitude of scalar fields charged under the flavour group (flavons) with aligned vacuum expectation values and potentially complicated or ad-hoc scalar potentials. One may simply need a single complex field, a.k.a. the modulus. Yukawa couplings and mass matrices are obtained from modular forms, which are known functions of the modulus. Its VEV can be the only source of flavour symmetry breaking and CP violation. The modular setup may shed light on the patterns of fermion mixing, the origin of fermion mass hierarchies and provide a solution to the strong CP problem.

Primary author: PENEDO, Joao (INFN Roma Tre)

Presenter: PENEDO, Joao (INFN Roma Tre)

Session Classification: Poster