

Quarks at the modular S_4 cusp

Thursday 6 June 2024 18:00 (20 minutes)

We analyse the possibility of describing quark masses, mixing and CP violation in S_4' modular flavour models without flavons. We focus on the case where the closeness of the modulus to the point of residual \mathbb{Z}_3^{ST} symmetry (the cusp) plays a role in generating quark mass hierarchies and discuss the role modular form normalisations play in such constructions. We find that fitting quark data requires explicit CP breaking, unless a second modulus is introduced.

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