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Quark and lepton hierarchies from S4' modular flavor symmetry

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We proposed models in which the hierarchical structure of the quark and lepton masses and mixing are explained by the S_4' modular flavor symmetry. This is the first explicit example which realizes all of the mass and mixing hierarchies from a single modular symmetry. The hierarchies are predominantly explained by the Froggatt-Nielsen mechanism due to the residual Z_4^T symmetry, where the modulus is stabilized near the fixed point $\sim i\infty$. The numerical factors from canonical normalizations and modular forms also give important effects to explain the observed patterns with $\mathcal{O}(1)$ parameters.

Secondary category for the parallel session (optional)

Flavor Physics

Primary author: KAWAMURA, Junichiro (IBS-CTPU)

Presenter: KAWAMURA, Junichiro (IBS-CTPU)

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