

# Non-invertible flavor symmetries in magnetized extra dimensions

*Wednesday, August 21, 2024 3:00 PM (30 minutes)*

In this talk, we discuss non-invertible symmetries in orbifold compactifications of higher dimensional Yang-Mills theory with magnetic fluxes. Specifically, we present fusion algebras of discrete isometry operators, which are invariant under the  $\mathbb{Z}_N$  orbifold twist and their representations explicitly on zero-mode wave functions. These zero-modes may correspond to generations of quarks and leptons in four-dimensional low-energy effective field theory. Hence, our finding non-invertible symmetries correspond to a kind of flavor symmetries among quarks and leptons.

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