

Wavefunctions and Yukawa couplings on Resolutions of C^N/Z_N Orbifolds

Wednesday, 4 December 2019 17:20 (15 minutes)

We propose matter wavefunctions on resolutions of C^N/Z_N singularities with magnetic fluxes. In this talk, we first discuss the resolution of magnetized T^2/Z_N orbifold models. In the blow-down limit of T^2/Z_N orbifolds, the obtained wavefunctions of chiral zero-modes result in those on the magnetized T^2/Z_N orbifold models, but only the wavefunctions of Z_N -invariant zero-modes receive the blow-up effects around fixed points of T^2/Z_N orbifolds. Such blowup effects change the selection rules and Yukawa couplings among the chiral zero-modes as well as the modular symmetry, in contrast to those on the magnetized T^2/Z_N orbifold models. We also discuss the matter wavefunctions on resolutions of K3 orbifolds.

Presenter: Dr OTSUKA, Hajime

Session Classification: Short talks