A Frozen Singularity Pandemic

Ethan Torres*[1]

[1]CERN Theoretical Physics Department – CERN dep TH, 1211 Geneve 23, Switzerland, Switzerland

Abstract

Singularities in string/M/F-theory are essential ingredients in phenomenological constructions and in the exploration of strongly coupled QFTs. Frozen singularities are singularities with a localized flux and have some or all of its deformation moduli lifted. This "freezing mechanism" has mostly been argued via long chains of string dualities and not from some top-down derivation. In this talk, I will discuss some upcoming work on frozen singularities in M-theory and Type II theories. The goal will be to outline new statements on freezing mechanisms for the known frozen singularities as well as discuss a broad new landscape of Calabi-Yau 3-fold frozen singularities.

*Speaker