Contribution ID: **72** Type: **not specified**

The SO(10) F-theory Landscape and Tensor-Matter Transitions

Wednesday 23 May 2018 14:00 (20 minutes)

We systematically construct all torically resolved SO(10) theories theories with possible additional (discrete) Abelian gauge symmetries. We show that most of these models are connected via higgsing or superconformal matter transitions involving small E8 instantons. Motivated by this observations, we classify superconformal matter transitions in 6d SUGRA theories with Abelian and non-Abelian gauge groups. From consistency under gauge and gravity anomaly cancellation follow strong constraints on the involved matter representations and charges involved in the transition.

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Session Classification: Parallel Session Formal