Contribution ID: **67** Type: **not specified**

The Higgs Branch of minimally supersymmetric 6d SCFTs Higgsable to (2,0) theories.

Thursday 26 September 2024 17:04 (17 minutes)

The landscape of 6d SCFTs with minimal supersymmetry constitutes the perfect playground to learn about interesting aspects of SCFTs due to the many constraints that symmetries enforce. Therefore, I will discuss an intriguing class of minimal supersymmetric conformal field theories in six dimensions that under Higgs branch RG flow presents supersymmetry enhancement to the 6d $(2,0)$ SCFTs of type D_k and $E_{6,7,8}$. A geometric approach, where theories are constructed as F-theory compactifications with Higgsing being equivalent to complex structure deformation of said space, will be paired with a brane construction in Type IIA with an ON^- plane that allows the extraction of a magnetic unitary-orthosymplectic 3d $\mathcal{N}=4$ quiver that encodes the 6d theory Higgsable to type D's Higgs branch. The combination of these different perspectives broadens our understanding of the moduli space structure: when the complex structure deformations become too hard to study, quiver subtraction (and brane dynamics) on the magnetic quiver side simplifies the problem, conversely, when the latter lacks a systematic understanding, geometry sheds light on what are the possible Higgsing patterns. I will conclude by explaining how the interplay of these toolkits makes room to extend the detailing of the Higgs branch structure, i.e. leaves and transverse slices, for theories Higgsable to type E that lack both a Type IIA brane and magnetic quiver construction.

Primary authors: Dr LAWRIE, Craig (DESY); MANSI, Lorenzo (T (Stringtheory))

Presenter: MANSI, Lorenzo (T (Stringtheory))

Session Classification: Parallel Thursday Strings & Mathematical Physics 1

Track Classification: Strings & Mathematical Physics