

T-branes through 3d mirror symmetry

Simone Giacomelli

Université Libre de Bruxelles
ULB Campus Plaine CP 231
Bruxelles, Belgium

Joint work with: Andres Collinucci, Raffaele Savelli, Roberto Valandro

T-branes are exotic bound states of D-branes, characterized by mutually non-commuting vacuum expectation values for the worldvolume scalars, and the M/F-theory geometry lifting D6/D7-brane configurations is blind to the T-brane data. In this talk I will explain how to make this data manifest by looking at the effect of T-branes on a probe two brane. I will show that, exploiting 3d mirror symmetry, we can understand in detail how the worldvolume brane theory is modified, uncovering a new class of N=2 quiver gauge theories, whose Higgs branches mimic those of membranes at ADE singularities.