

Scale-separation and massive type-IIA orientifolds

Friday 19 January 2024 15:30 (30 minutes)

I will discuss supersymmetric AdS_3 flux vacua of massive type-IIA supergravity on G2 orientifolds, focusing on (non) scale separated configurations at large volume and weak-coupling, also highly anisotropic. I will show, for instance, that depending on the F_4 flux the 7-dimensional compact space can either have six small and one large dimension so that the “external” space is scale-separated and effectively 4-dimensional, or all seven compact dimensions small and parametrically scale-separated from the three external ones. I will also discuss the realization of the Swampland Distance Conjecture within such setups via the inclusion of appropriate D4-branes.

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