

Infinite Distances and the Axion Weak Gravity Conjecture

Thursday 27 June 2019 15:30 (15 minutes)

The axion Weak Gravity Conjecture implies that when parametrically increasing axion decay constants, instantons corrections become increasingly important. In this talk I will discuss evidence for this statement, obtained by studying the couplings of axions that arise in Type IIA Calabi-Yau compactifications. To be more precise, I will discuss the asymptotic behavior of these couplings as one moves towards infinite distance loci in the complex structure moduli space of the Calabi-Yau. Then the growth of the tower of states predicted by the Swampland Distance Conjecture will play a crucial role in satisfying the convex hull condition of the Weak Gravity Conjecture.

Presenter: VAN DE HEISTEEG, Damian (Utrecht University)

Session Classification: Parallel Session