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Keiya Ishiguro "Finite Landscape on toroidal orientifolds with h^{2, 1} = 1"

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We present a finite Landscape of Type IIB flux compactifications on toroidal orientifolds with h^{2, 1} = 1. Due to the S-duality and a duality in the complex-structure modulus space, the flux Landscape where we consider SUSY Minkowski solutions becomes finite with a fixed D3-brane charge of the three-form fluxes. Thus, we can define the probability associated with the modulus VEVs. In the context of modular flavor symmetry, the VEVs for the complex-structure modulus controls the flavor symmetry and its breaking. In our previous study, we only presented a finite Landscape on $T^6/(Z2 \times Z2')$. In this talk, we extend the previous discussion to other toroidal orientifolds that have h^{2, 1} = 1. The duality in the complex-structure modulus may not be the usual SL(2, Z) owing to the orbifold lattice. Indeed, we find a different Landscape with a certain congruence subgroup of SL(2, Z) is obtained, and the Landscape does not predict the usual elliptic points (fixed points that are elements of the fundamental region).

Session Classification: Short talks