Institut Henri Poincaré

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String Theory in Greater Paris

Rencontres Théoriciennes

"Supergravité, théorie des cordes et théorie M"

Jeudi 29 Fevrier 2024, 11:45

Thomas Grimm

Utrecht

Tameness and Complexity of the Flux Landscape

Flux compactifications provide an opportunity to sharpen our understanding of the properties of effective theories arising from string theory. Many of their features are mathematically captured by Hodge theory, a field that has recently seen a number of mathematical breakthroughs in connection with tame geometry. In this talk, I suggest a novel perspective on the locus of flux vacua that will allow us to revise some of the old claims about the number of such vacua, their properties, and their geometric complexity. A key point will be to use the dichotomy of the transcendentality of the arising scalar potentials and the existence of symmetries.

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