Exploring the type IIB flux landscape

Pellegrino Piantadosi*[1]

[1]NYUAD – United Arab Emirates

Abstract

In this talk I will present recent progress in the exploration of type IIB flux compactifications based on exhaustive datasets of supersymmetric flux vacua. These datasets reveal detailed propetries of vacuum distributions, moduli hierarchies and solutions with small superpotentials, while data-driven analyses expose previously hidden structures in the flux and moduli space. Using this framework, I will discuss recent results on the inclusion of worldsheet instanton corrections within the large complex structure patch, exploring how these non-perturbative effects modify the landscape and give rise to new classes of controlled solutions relevant for moduli stabilisation.

*Speaker