Contribution ID: **66** Type: **Parallel session talk**

Topology change and non-geometry at infinite distance

Thursday, 27 June 2024 17:45 (15 minutes)

The distance conjecture diagnoses viable low-energy effective realisations of consistent theories of quantum gravity by examining
their breakdown at infinite distance in their parameter space. At the
same time, infinite distance points in parameter space are naturally intertwined with string dualities. We explore the implications of the distance conjecture when T-duality is applied to curved compact manifolds and in presence of (non-)geometric fluxes. We provide evidence of how divergent potentials signal pathological infinite distance points in the scalar field space where towers of light states cannot be sustained by the curved background. This leads us to suggest an extension to the current statement of the Swampland distance conjecture in curved spaces or in presence of non-trivial fluxes supporting the background.

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Session Classification: Parallel session