Contribution ID: **320**   Type: **not specified**

Fractionally Confined Monopoles in Failures of the Lattice Weak Gravity Conjecture

Tuesday 8 July 2025 15:30 (17 minutes)

The Weak Gravity Conjecture and its various refinements form a cornerstone of the swampland program. While many examples satisfy the Lattice Weak Gravity Conjecture (LWGC), where a superextremal state is present at every site of the charge lattice, there are exceptional examples where only a (finite index) sublattice of superextremal states are present. Following my recent work 2502.14951, we examine the common features of these LWGC violating theories. In particular, we find that associated to the sublattice of superextremal states there is a dual superlattice of confined monopoles. Moreover, as the violation becomes more extreme the tension of the confining flux tubes becomes light. After introducing the mechanics of this relation I will discuss EFTs where these confined monopoles enter, and landscape examples of these EFTs (where we can make precise relations between the violation and the flux tube tension).

Presenter: RAUCH, Sebastian

Session Classification: Parallel Session 1