

# The Scalar Weak Gravity Conjecture, moduli fields and gauged supergravity

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In the presence of massless scalar fields, mediating long-range forces, the Weak Gravity Conjecture (WGC) must be modified to take such interactions into account. This suggested the possibility that a relation analogous to the WGC could hold for scalar fields only, dubbed Scalar Weak Gravity Conjecture (SWGC). In this talk we discuss the SWGC in the case where the scalar fields are compactification moduli, a setup which allows to probe the conjecture and test its validity. More specifically, we'll discuss under which conditions the SWGC can be satisfied, its relation to the WGC, its stability under dimensional reduction and its potential connection with identities in supergravity.

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