

# Super-hidden Photons and how to find them in the Landscape

*Thursday 10 July 2025 16:24 (17 minutes)*

A generic feature of string theory compactifications are hidden sectors. In particular, in the Type IIB/F-Theory corner of the landscape, a prominent example is an isolated D3-brane hosting a  $U(1)$  gauge field that is spatially separated from a locally realized standard model (SM). In this talk, I argue how ‘super-hidden’ photons living on such branes generically interact with the SM via spin-dependent interactions mediated by bulk fields. The general mechanism is illustrated in a simple toy model with Pati-Salam gauge group, and we discuss potential phenomenological constraints on such couplings to the visible sector.

**Presenter:** STEINER, Jonathan

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