

# Constraining Quirky Tracks with Conventional Searches

*Wednesday, 18 October 2017 13:30 (20 minutes)*

Quirks are particles that are both charged under the standard model and under a new confining group. The quirk setup assumes there are no light flavors of the new confining group so that while the theory is in a confining phase, the distance between quirk-anti-quirk pairs can be macroscopic. In this work, we reinterpret existing collider limits, those from monojet and heavy stable charged particle searches, as limits on quirks. Additionally, we propose a new search in the magnetic-field-less CMS data for quirks and estimate the sensitivity. We focus on the region where the confinement scale is roughly between 1 eV and 100 eV and find mass constraints in the TeV-range, depending on the quirk's quantum numbers.

## **Presentation**

Talk given in person

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