

## Phenomenology 2025 Symposium



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### Colliding light to measure tau g-2

*Monday 19 May 2025 15:45 (15 minutes)*

The electron and muon anomalous magnetic moment ( $g-2$ ) are among the most precisely tested quantities in nature. But what about tau-leptons? Long overlooked, tau  $g-2$  is so poorly constrained it cannot even test Schwinger's landmark  $\alpha/2\pi \simeq 0.0012$  prediction from 1948. This leaves striking room for new physics where taus enjoy 280 times greater sensitivity than muons. Creative proposals to measure tau  $g-2$  via photon collisions are initiating an exciting new LHC program using unconventional tracking. These advances open tests of quantum electrodynamics in uncharted regimes that could reveal novel discoveries. Based on 2403.06336

#### Mini Symposia (Invited Talks Only)

#### Plenary (Invited talks only)

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