

Which way beyond the Standard Model is the muon magnetic moment pointing?

The Fermilab muon $g-2$ experiment has recently confirmed the previous Brookhaven measurement, and both are in apparent tension with calculations within the Standard Model. After reviewing the history of theoretical calculations and experimental measurements of the muon $g-2$, I will discuss possible interpretations of this tension, including alternative Standard Model calculations as well as scenarios for physics beyond the Standard Model, including leptoquarks, a Z' boson and supersymmetry.

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