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# Theory predictions for g-2 of the muon

*Tuesday, 12 June 2018 15:00 (30 minutes)*

The magnetic moment of the muon $g-2$ is sensitive to all interactions of the Standard Model and to a variety of hypothetical new physics scenarios. Future measurements will lead to important constraints on new physics, and they might even establish the existence of new physics contributions to g-2. The talk will describe the theoretical calculations of g-2 both in the SM and beyond the SM. Improvements in the SM prediction for g-2 have already significantly sharpened the current deviation from the measured value. In selected new physics models similarly accurate predictions are available. The talk will also give a phenomenological overview of the range and model dependence of new physics contributions to $g-2$.

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