



## Einladung zum Vortrag

**“Boosting the searches for physics beyond the Standard Model: novel QCD precision tools to meet experiments”**

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**Termin:** Montag, 20.05.2019, 15:00 Uhr

**Ort:** Lise-Meitner-Hörsaal  
9. Boltzmannngasse 5, 1. Stock

#### Abstract:

Improving theoretical predictions for strong interaction effects is a key factor to maximize the discovery potential of both high- and low-energy particle physics experiments. In this context, I will first discuss new tools for precision calculations exploiting the structure of hadronic jets at colliders which provide innovative ways to further constrain properties of Standard Model particles and enhance the reach of new physics searches.

I will then focus on a novel theoretical framework for an improved evaluation of the muon anomalous magnetic moment, which is one of the most accurately measured quantities in particle physics and one of the very few to exhibit a significant discrepancy with respect to its present Standard Model determination.

Im Rahmen des Vortrages findet eine Lehrprobe zum Thema  
„Periodic Potentials in Quantum Theory“ statt.