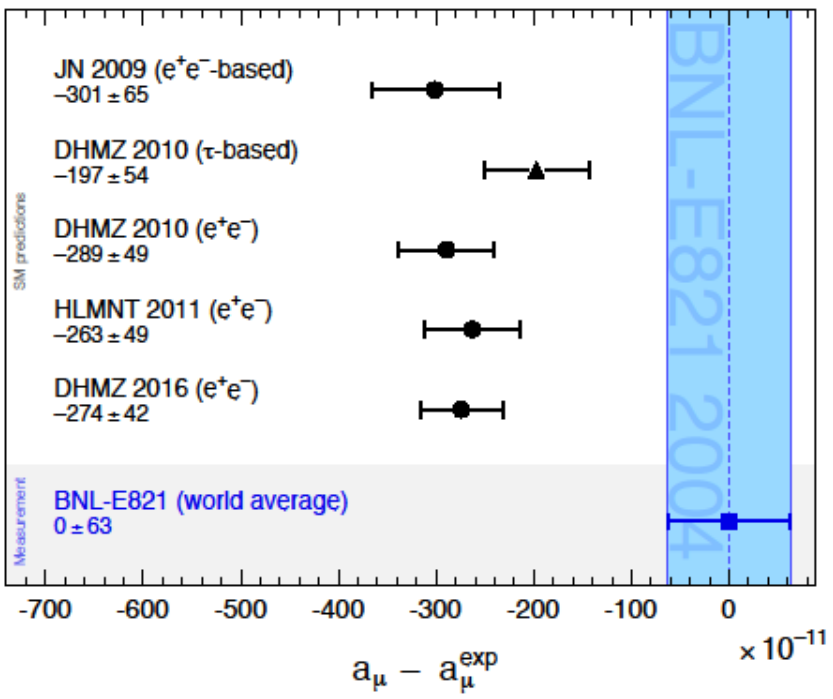
DESY
Physics Seminar

Ultimate precision Standard Model tests: the muon magnetic anomaly.

Andreas Höcker (CERN)

Tuesday, 21 February 2017, 16:45 h, DESY Auditorium



The magnetic moment of the electron and muon is one of the most precisely measured and predicted particle property. Quantum fluctuations due to electromagnetic, weak and strong interactions cause a deviation of the magnetic moment from the gyromagnetic ratio that is parametrised by the anomalous magnetic moment, (g-2)/2. In case of the muon, that quantity has sensitivity to new physics if the contribution is of similar size as that of weak interactions. At the dawn of a new muon g-2 experiment at Fermilab and a proposed experiment at J-PARC, the seminar gives a brief historical review and discusses recent improvements in the Standard Model prediction which is dominated by the uncertainty in the strong interaction contribution.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**

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