DESY

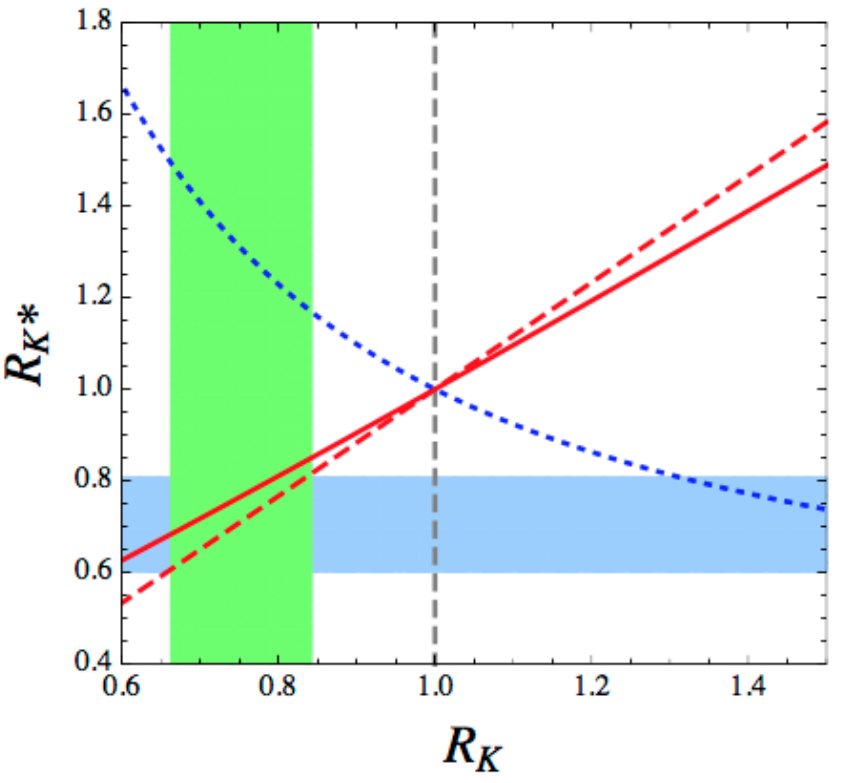
Particle and Astroparticle Physics Colloquium

Implications of lepton non-universality for BSM models and colliders.

Tuesday, 23 October 2018, DESY Auditorium,16:45 h

Gudrun Hiller (Dortmund)

Implications of the exciting hints for lepton-nonuniversality seen in ratios of rare B decays into muons and electrons at LHCb are discussed. If indeed true and confirmed with more data in the future at the LHC and Belle II, this would constitute a spectacular breakdown of the standard model. Leptoquarks provide natural explanations of the anomalies as they carry lepton and quark flavor charges and thus generically can induce nonuniversality, and lepton flavor violation. B-physics data point to masses from just around the corner, at the present search limits, to the few multi-TeV range, while viable flavor models suggest few TeV. Collider signatures are discussed.



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

Accelerators | Photon Science | Particle Physics

Deutsches Elektronen-Synchrotron
A Research Centre of the Helmholtz Association

HELMHOLTZ SPITZENFORSCHUNG FÜR GROSSE HERAUSFORDERUNGEN

DESY.