

PHYSIKALISCHES KOLLOQUIUM

Wintersemester 2018/19

Das Kolloquium findet (soweit unten nicht anders angegeben) jeweils montags 17:15 Uhr im Hörsaal P des Physikalischen Instituts auf dem Hubland Campus Süd der Universität Würzburg statt.

12. November 2018

Prof. Dr. Martin Beneke
Technische Universität München
Lehrstuhl für Theoretische Elementarteilchenphysik (T31)

A Top (Quark) Story

Abstract

The top quark, discovered almost 25 years ago, has now been copiously produced at the CERN Large Hadron Collider, which allows detailed studies and interpretations of its properties. It remains the heaviest elementary particle ever found. Its strong interaction properties are those of any other quark, but its large coupling to the Higgs boson suggests a special role in electroweak symmetry breaking. I review recent efforts to compute top quark properties precisely, and discuss the more speculative questions: Does the top quark, elusive as it is, determine the fate of the Universe? Does naturalness require top partners, and what and where are they?

Für die Dozenten der Fakultät für Physik und Astronomie

Frau Prof. Dr. Erdmenger, Prof. Dr. Bode, PD Dr. Behr und Herrn Steppert