Fachgruppe Physik und Astronomie Universität Bonn

Physikalisches Kolloquium
Fachgruppe Physik/Astronomie der Universität Bonn

UNIVERSITÄT BONN

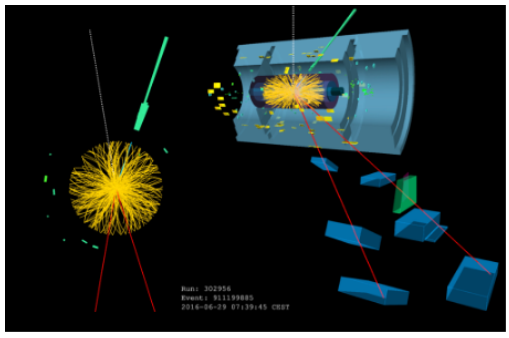
Friday, 21.06.2024, 1:15 p.m.
in Lecture Hall I of the Physics Institute

Matthias Schott
Bonn University

„Five decades of Quantum Chromodynamics and still new things to learn at the LHC"

Our theory of the strong interaction was originally formulated in the 1970s and builds now the basis essentially for all physics processes at the LHC. Without our precise understanding of QCD, major breakthroughs such as the Higgs Boson discovery would have not been possible, but also precision measurements in the electroweak sector at a hadron collider would stay a dream.

In this talk, I will present the most precise experimental measurement of the strong coupling constant, i.e. the only free parameter of the theory, when one neglects the quark masses. Moreover, I will discuss selected aspects of QCD, which never have been experimentally observed or are poorly understood and modelled, but yield significant importance for our understanding of the universe.



Everybody is welcome, especially students of all semester

Physikalisches Institut

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