



# PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik  
der Johann Wolfgang Goethe-Universität Frankfurt

Mittwoch, den 04.07.2018, 16 Uhr c.t.  
Großer Hörsaal, Raum \_0.111,  
Max-von-Laue-Str. 1



**Prof. Dr. Hartmut Wittig**

Institut für Kernphysik  
Johannes Gutenberg-Universität Mainz

## *"The limits of the Standard Model and the role of Lattice QCD "*

The particle content of the Standard Model has been completely established following the discovery of the Higgs boson. While the Standard Model describes all known phenomena in accelerator-based experiments, it leaves many important questions unanswered: what is the reason for the large asymmetry between the abundance of matter and anti-matter? What is the nature of dark matter? In this talk I describe several attempts to detect signals for physics beyond the Standard Model using precision experiments at low energies. Furthermore, I discuss the role of lattice Quantum Chromodynamics for these efforts.

Die Dozenten der Physik

local host: Prof. Dr. Dirk Rischke, drischke@th.physik.uni-frankfurt.de