PHYSIKALISCHES KOLLOQUIUM

Referentin:  
Dr. Monica Dunford – Trefftz Professorin (TUD)  
Universität Heidelberg  
Kirchhoff Institute for Physics

Thema:  
The quest for the invisible: Dark Matter and the LHC

Zeit und Ort:  
Dienstag, 09.05.2017, 16:40 Uhr  
Recknagel-Bau, Hörsaal REC/C213, Haeckelstr. 3

Leiter:  
Prof. Dr. Michael Kobel

Kurzfassung:  
The nature of dark matter is one of the biggest open questions in both cosmology and particle physics today. If dark matter is a weakly interacting massive particle, as favored in many cosmology and particle physics theories, it can be produced and studied at the Large Hadron Collider (LHC) at CERN. This proton-proton machine is now operating at its near-design luminosity of 13 TeV. During 2016, the data-taking run was wildly successful, producing eight times more data compared to the previous year. This colloquium will discuss searches for dark matter at the LHC with a special emphasis on some new and novel techniques, which improve the sensitivity to dark matter over a large mass range from GeV to TeV masses.

Biographie:  
Monica Dunford is a Trefftz Professor at TU Dresden for the spring semester. She has worked on the ATLAS experiment since 2006 and is currently a junior group leader at Heidelberg University. In addition to her research, she has great interest in science outreach; she is a main character in the film ‘Particle Fever’, which she filmed over a period of six years while working at CERN.