

Bereich Mathematik und Naturwissenschaften Fachrichtung Physik

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.

