



KOLLOQUIUM ALL THE DARK WE CAN NOT SEE – THE STATE-OF-THE ART IN DIRECT SEARCHES FOR PARTICLE DARK MATTER

21. Januar 2020 • 14:00 Uhr • Hörsaal, Geb. 04.7 (ZB) • Forschungszentrum Jülich

PROF. DR. LAURA BAUDIS

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- 1997 – 1999 Research Assistant, Max-Planck-Institut für Kernphysik, Heidelberg
- 1999 Ph. D. in Physics: Experimental Particle Astrophysics, University of Heidelberg
- 1999 – 2000 Research Associate in Non-Accelerator Particle Physics, Max-Planck-Institut für Kernphysik, Heidelberg
- 2000 – 2003 Postdoctoral Fellow, Physics Department, Stanford University, California
- 2003 – 2006 Assistant Professor, Department of Physics, University of Florida, Gainesville
- 2006 – 2007 Lichtenberg Professor for Astroparticle Physics (W3), RWTH Aachen
- since 2007 Professor of Physics, University of Zürich

One of the major challenges of modern physics is to decipher the nature of dark matter. Astrophysical observations provide ample evidence for the existence of an invisible and dominant mass component in the observable universe. The dark matter could be made of new, yet undiscovered elementary particles, with allowed masses and interaction strengths with normal matter spanning an enormous range. Among these, particles with masses in the MeV to TeV range could be directly observed via elastic or inelastic scatters with atomic nuclei or with electrons in ultra-low background detectors operated deep underground. After an introduction to the dark matter problem and the phenomenology of direct dark matter detection, the most promising direct detection techniques will be discussed, addressing their current and future science reach, as well as their complementarity.

ZU DIESEM VORTRAG LÄDT EIN:

Prof. Dr. Astrid Kiendler-Scharr (IEK-8)

*Im Namen des Wissenschaftlich-Technischen Rates
des Forschungszentrums Jülich*