

PHYSIKALISCHES KOLLOQUIUM

AM 20. MAI 2019 UM 17 UHR C.T.

IM GROßEN HÖRSAAL



ANTI-MATTER IN COSMIC RAYS

DR. IRIS GEBAUER

KIT KARLSRUHE, INSTITUT FÜR EXPERIMENTELLE KERNPHYSIK

The Alpha Magnetic Spectrometer (AMS) is installed on the International Space Station (ISS) since May 2011. AMS is a complex particle detector designed to precisely measure the fluxes of cosmic rays between 0.5 GeV and a few TeV. The physics goals of the experiment include the search for possible signals of dark matter annihilation and hints for primordial antimatter in the fluxes of cosmic rays.

This talk provides an overview over some of the most exciting and often surprising results from the first 8 years of AMS data dating on ISS. I will briefly discuss their impact on our understanding of the origin and transport of galactic cosmic rays.