

KCETA Colloquium Status of Galactic cosmic ray physics - with an antimatter taste

- Thursday, June 27, 2024 Kleiner Hörsaal A (CS) 15:45 - 17:00
- Dr. Silvia Manconi (LAPTh, CNRS, France)

Charged cosmic rays permeate our Galaxy and act as unique messengers of its properties. During the last decade, precision data on Galactic cosmic rays have been collected by various satellite and ground experiments, and complementary information has come from multiwavelength photon observations.

Among the components of Galactic cosmic rays, antimatter particles are expected to be rare, and thus more sensitive to new physics processes.

In this talk I will review our understanding of Galactic cosmic ray sources and propagation, focusing on antimatter particles, such as positrons and antiprotons. I will discuss tentative excesses reported for each of these cosmic ray species, and recent endeavors to explain them with astrophysical and new physics processes.



Please note:

The colloquium will also be live-streamed to Seminarraum 224 in Bld. 402 (CN).

KIT Center Elementary Particle and Astroparticle Physics (KCETA) <u>www.kceta.kit.edu</u>



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