

PHYSIKALISCHES KOLLOQUIUM

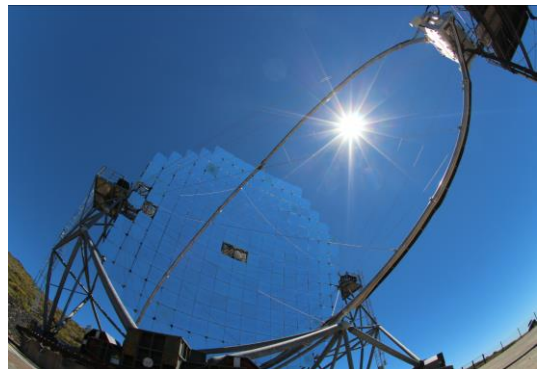
SOMMERSEMESTER 2023

Montag, 17.04.2022, 12 Uhr c.t.

THE VERY HIGH ENERGY GAMMA-RAY WINDOW TO THE COSMOS

Dominik Elsässer, TU Dortmund

The atmosphere of our earth permits direct ground-based observations of photons from the cosmos only through two “windows” of transparency, one in the radio band, and one in the optical regime. During the last decades, we have however opened up an indirect third window, at energies of tens of GeV and beyond, which enables us to perform sensitive ground-based observations of the extreme universe using imaging air Cherenkov telescopes. These telescope systems have matured from purely experimental facilities to an integral part of multi-wavelength astronomy. In this colloquium talk, recent key scientific findings from the MAGIC and LST-1 telescopes located on La Palma (Canary Islands) will be presented. A focus will be



on observations of transient energetic phenomena like thermonuclear novae in our Milky Way, rapid outbursts of the active nuclei of distant galaxies, and gamma-ray bursts. In addition, sensitive searches for the dark matter in the Universe will be discussed.

Die Einführung erfolgt durch Ralf-Jürgen Dettmar

Die Fakultät lädt alle Interessierten herzlich ein. Die Veranstaltung findet im Hörsaal HNB und hybrid via Zoom (Link online oder per QR-Code) statt.

