

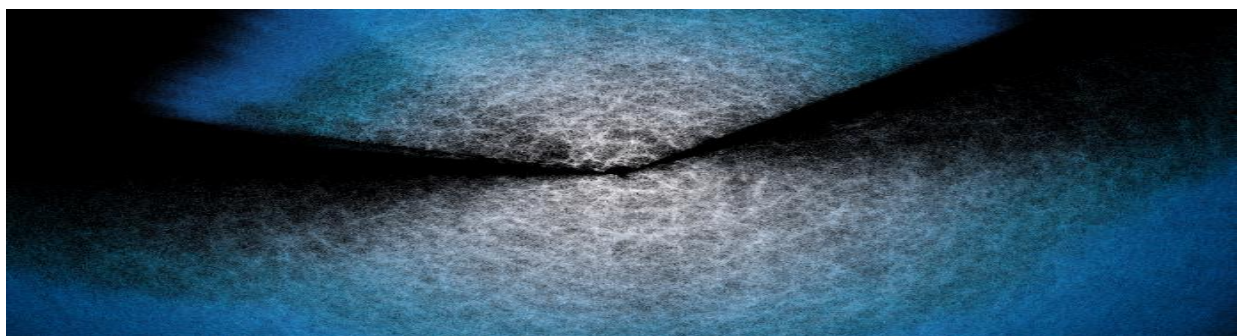
Einladung zum Physikalischen Kolloquium

04.07.2025 **Seshadri Nadathur, University of Portsmouth**
»Dark energy and cosmology from DESI DR2«
Einführung: F. Kahlhöfer

Star trails above the Mayall telescope and KPNO



Abstract: More than 25 years after the discovery of the accelerated expansion of the Universe, the physical nature of dark energy remains elusive. The Dark Energy Spectroscopic Instrument (DESI) is the first of a new generation of “Stage-IV” cosmology survey experiments aiming to improve this understanding. By precisely mapping the positions of over 50 million galaxies and quasars, DESI is measuring the expansion history of the Universe over the last 11 billion years. I will describe the experiment and discuss the cosmological results from the first 3 years of data, from baryon acoustic oscillations (BAO) and the full shape of the clustering power spectrum. These include exciting hints of an anomaly in the cosmological constant model of dark energy, and unprecedented constraints on the neutrino mass scale.



A slice through the DESI map of galaxies

Der Vortrag findet **am Freitag, den 04. Juli 2025 um 15:45 Uhr im Otto-Lehmann-Hörsaal**, Physik-Flachbau (Geb. 30.22), KIT-Campus Süd statt.