

**School of Science** Faculty of Physics

## PHYSICS COLLOQUIUM

Speaker: PD Dr. Axel Schwope

Leibniz-Institute for Astrophysics Potsdam (AIP), head of the X-ray astronomy group at the AIP, and University of

Potsdam as Privatdozent



Topic: eROSITA on SRG: Compact objects in the hot and energetic

Universe

Time and Tuesday, December 6, 2022, 4:40 pm – hybrid event

place: The colloquium will be held in REC/C213.

Online participation possible:

Zoom-Meeting: Meeting-ID: 631 3817 8900 / passcode: PK-WiSe22

https://tu-dresden.zoom.us/i/63138178900?pwd=RVVZM3N4azdmNmVIO2RWUTZ0TkhXdz09

Host: Dr. Thomas Kormoll

Abstract: eROSITA was surveying the whole X-ray sky with unprecedented spatial and spectral

resolution between 2020 and 2021. Mounted on the Russian Spektrum-Roentgen-Gamma observatory located some 1.5 Million km away from Earth, it has uncovered meanwhile more than 2 Million new X-ray sources. These give a fresh view onto X-ray active stars in our own Milky Way, they are used to study the growth and the fate of the supermassive Black Holes in the centers of active galaxies and to characterize the mysterious Dark Energy via the mass function of galaxy clusters. Alongside, the special scanning pattern and timescale allowed eROSITA to discover new transient phenomena in compact objects, both in our own galaxy and in the extragalactic sky. In the talk we throw a quick glance over 60 years of X-ray astronomy, present the main motivation to build eROSITA, and discuss selected highlights from the first 2.5 years of its operation.

Bio: Diplom, Promotion, Habilitation at TU Berlin / AIP since 1992 (the first Wessi): postdoc, staff, group

head / Managing Editor Astronomische Nachrichten (1997 – 2004) / Adjunct faculty New Mexico State University (2006 – 2009) / Privatdozent: TU Berlin 2002 – 2016, UP since 2017 / Co-I XMM-Newton Survey Science Center / Co-I eROSITA / Chairman of working groups and topical panels

for the eROSITA, ATHENA and SDSS-V missions/projects.

DRESDEN concept Exzellenz aus Wissenschaft und Kultur