

New Results on Astrophysical Black Holes from eROSITA

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The eROSITA X-ray telescope was launched in July 2019 aboard the Spektrum-RG satellite. After a short performance verification phase, it has subsequently performed an X-ray all-sky survey of unprecedented depth. Accreting supermassive black holes in active galactic nuclei (AGN) constitute the most numerous class of sources detected by eROSITA. The high sensitivity and large field of view of the instrument provide large sample sizes enabling robust statistical studies of the X-ray AGN population, as well as the first significant samples of the rarest objects, e.g. those at high redshift. The distinctive temporal sampling pattern provided by the survey also provides unique information about the variability of the X-ray sky. In this presentation, early AGN results from eROSITA will be reviewed. These have confirmed its potential to yield new insights into black hole demographics and accretion physics, and yielded a number of surprising new discoveries.

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