Seventeenth Marcel Grossmann Meeting



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Type: Invited talk in a parallel session

Highlights and discoveries from SRG/ART-XC

Monday, 8 July 2024 15:40 (40 minutes)

An overview of highlights and discoveries from Mikhail Pavlinsky ART-XC telescope on board the SRG observatory is presented. Since 2019 SRG/ART-XC has conducted several full all sky surveys as well as a deep survey of our Galaxy. As a result, we obtained the catalogue of hard X-ray sources detected at the all sky, which includes more than one and a half thousand objects, most of them are active galactic nuclei. Hundreds of new objects have been detected during all sky and galactic surveys, including the microquasar SRGA J043520.9+552226/AT2019wey, slowly rotating neutron stars, Swift J1727.8-1613 - the brightest object in the X-ray sky of 2023. In February 2024 SRG/ART-XC discovered a new accreting millisecond pulsar demonstrating quasi regular X-ray bursts and effects of the GR in its pulse profile. We also obtained detailed X-ray light curves of the supernova SN2023ixf and the most powerful gamma-ray burst, GRB221009A. At this moment SRG/ART-XC continues the all sky surveys.

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