



# X-RAY ASTRONOMY 2019

*Current Challenges and New Frontiers in the Next Decade*

8-13 September 2019  
CNR/INAF Research Area, Bologna, Italy

Contribution ID: 273

Type: **Poster**

## Neutron Star Population Expected in Galactic Center Region

*Friday, 13 September 2019 15:07 (1 minute)*

We discuss the emission properties of the population of neutron stars that is expected to be present in the innermost parts of the Galactic center. Part of the population of isolated neutron stars should propagate supersonically through denser ionized streams of the Minispiral (Sgr A West), forming bow shocks where particles are accelerated and expected to produce polarized X-ray synchrotron signal. We investigate whether the polarized X-ray emission from Galactic center neutron star bow shocks could be potentially detectable in the framework of future X-ray polarimetry. To this end, we explore the distribution of different interaction modes within the environment and the observability of the resulting bow-shock nebulae.

### Topic

Compact and diffuse sources in galaxies and in the Galactic Center

### Affiliation

Astronomical Institute, Czech Academy of Sciences

**Primary authors:** Prof. KARAS, Vladimir (Astronomical Institute, Czech Academy of Sciences); Dr ZAJACEK, Michal (Center for Theoretical Physics, Polish Academy of Sciences); Prof. ECKART, Andreas (I. Physikalisches Institut, Universitaet zu Koeln)

**Presenter:** Prof. KARAS, Vladimir (Astronomical Institute, Czech Academy of Sciences)

**Session Classification:** POSTER SESSION