



# 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: 11

Type: **Poster**

## Variability studies of black hole X-ray binaries with NICER

*Friday, 13 September 2019 16:04 (2 minutes)*

NICER's X-ray Timing Instrument allows investigating short-term variability of compact objects in the soft (0.2-12 keV) X-ray band. We used publicly available NICER monitoring data of black hole X-ray binary candidates, to investigate their short-term variability and follow it throughout the outburst. Black hole X-ray binaries are known to show a certain variability feature, called quasi-periodic oscillation, which can occur in different flavours depending on the state the source is in. We compare our NICER results to those obtained from other X-ray instruments, present our findings on quasi-periodic oscillations and covariance spectra, and discuss implications.

### Topic

### Affiliation

National Tsing Hua University, Hsinchu

**Primary author:** STIELE, Holger

**Co-author:** Prof. KONG, Albert (National Tsing Hua University)

**Presenter:** STIELE, Holger

**Session Classification:** POSTER SESSION