Contribution ID: **36** Type: **E-Poster Presentation**

# Detection of high frequency quasi-periodic oscillation during the reflare of MAXI J1348-630

*Sunday, 25 June 2023 17:23 (2 minutes)*

In this talk, i will discuss the detection of high frequency quasi-periodic oscillation (QPO) in the black hole x-ray binary MAXI J1348-630 in its hard spectral state. MAXI J1348-630 went through a reflare during MJD 58634 to MJD 58674 after a 104 days long outburst which began on MJD 58509. During the reflare the binary system evolved through a series of hard states of varying luminosity. We detected a high frequency QPO at 98.3 Hz with a significance of 3.7$\sigma$ in one of the NICER observations during its evolution. It was argued that the QPO frequency might be related to the Keplerian frequency of the accretion flow at the inner radius around a Kerr black hole.

**Primary author:** Mr KUMAR, Raj (Astrophysical Sciences Division, Bhabha Atomic Research Centre, Mumbai - 400 085, India & Homi Bhabha National Institute, Mumbai - 400 094, India)

**Co-authors:** Mr BHATT, Nilay (Astrophysical Sciences Division, Bhabha Atomic Research Centre, Mumbai - 400 085, India); Dr BHATTACHARYYA, subir (Astrophysical Sciences Division, Bhabha Atomic Research Centre, Mumbai - 400 085, India & Homi Bhabha National Institute, Mumbai - 400 094, India)

**Presenter:** Mr KUMAR, Raj (Astrophysical Sciences Division, Bhabha Atomic Research Centre, Mumbai - 400 085, India & Homi Bhabha National Institute, Mumbai - 400 094, India)

**Session Classification:** Flash Talks