

R20a

Suzaku By-Week Monitoring of the Galactic Center Sgr A* in X-rays

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A small gas cloud, G2, is on an orbit almost straight into the supermassive blackhole Sgr A* by spring 2014. This event gives us a rare opportunity to test the mass feeding onto the blackhole by a gas. To catch a possible rise of the mass accretion from the cloud, we have been performing the bi-week monitoring of Sgr A* in autumn and spring in the 2013 fiscal year.

The key feature of Suzaku is the high-sensitivity wide-band X-ray spectroscopy all in one observatory. It is characterized by a large effective area combined with low background and good energy resolution, in particular a good line spread function in the low-energy range. Since the desired flare events associated with the G2 approach is a transient event, the large effective area is critical and powerful tools to hunt them.

The first monitoring in 2013 autumn was successfully made. The X-rays from Sgr A* and its nearby emission were clearly resolved from the bright transient source AX J1745.6-2901. No very large flare from Sgr A* was found during the monitoring. We also may report the X-ray properties of two serendipitous sources, the neutron star binary AX J1745.6-2901 and a magnetar SGR J1745-29.