X-Ray Transients Observed with MAXI

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Abstract. MAXI (Monitor of All-sky X-ray Image) is an astronomical mission onboard the International Space Station. It started observations in August 2009. The Gas Slit Camera of MAXI is sensitive to X-rays in the energy range 2–30 keV. Most of the sky is scanned every 90 min with the orbital revolution of the ISS. With this unbiased monitoring, MAXI has detected numerous outbursts from known and unknown X-ray sources. MAXI discovered 18 X-ray novæ in seven years, including seven neutron star binaries, six black hole binaries (+candidates) and four unidentified sources. Other results include detections of superluminous stellar flares, a super-Eddington luminous flare from a white dwarf+Be Star binary near the SMC, and monitoring of recurrent outbursts from Be neutron-star binaries. Variations in X-ray-bright AGNs such as Cen A and Mrk 421 have been also monitored. This talk presented the highlights of the MAXI observations of variable sources, including the search for X-ray counterparts of gravitational-wave events.

Keywords. Stars: neutron, X-rays: bursts, nuclear reactions