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The Be/X-ray binary A0535+26 during its recent 2009/2010 outbursts

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The Be/X-ray binary A0535+26 showed a giant outburst in December 2009 that reached ~5.14 Crab in the 15-50 keV range. Unfortunately, due to Sun constraints it could not be observed by most X-ray satellites. The outburst was preceded by four weaker outbursts associated with the periastron passage of the neutron star. The fourth of them, in August 2009, presented a peculiar double-peaked light curve, with a first peak lasting about 9 days that reached a (15-50 keV) flux of 440 mCrab. The flux then decreased to less than 220 mCrab, and increased again reaching 440 Crab around the periastron. The outburst was monitored with INTEGRAL, RXTE, and Suzaku TOO observations. One orbital period (~111 days) after the 2009 giant outburst, a new and unexpectedly bright outburst took place (~1.4Crab in the 15-50 keV range). It was monitored with TOO obs ervations with INTEGRAL, RXTE, Suzaku, and Swift. First results of the spectral and timing analysis of these observations are presented, with a specific focus on the cyclotron lines present in the system and its variation with the mass accretion rate.

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