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Optical outburst of the B[e]/X-Ray system CI Cam/XTE J0421+560

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We report a very strong optical outburst of the B[e]/transient X-ray system CI Cam/XTE J0421+560. On 2016 Oct 09.064 we measured H alpha at 80 times the continuum flux level, similar to the previous reported outbursts in 1998 (Hynes et al., 2002) and 2005 (Yan et al., 2007). Our spectroscopic observations ranging from 3800 - 8900 A (Mercator/HERMES, La Palma) from 09 - 15 October show a daily increase in the strength of nearly all emission lines with the notable exception of [NII] 5755.

Further multi-wavelength observations are strongly encouraged as the outburst closely resembles the spectacular outburst in 1998 over the complete wavelength range from gamma-ray to radio. At that epoch the X-ray flux reached a peak intensity of almost 2 crab, within a day after the onset (D. Smith et al., 1998). In 2005 the peak brightness reached $V = 11.2$ after which it rapidly declined in a few months to $V = 11.8$.

Now the highly disputed distance to CI Cam is settled by GAIA at 1.4 (+0.7 -0.4) kpc, we note that CI Cam is unlikely a supergiant. This confirms the earlier designation as B4 III-V[e] for the optical star with an accreting white dwarf companion as suggested by Barsukova et al. (2006). The likely scenario would be a thermonuclear runaway of accreted matter on the surface of the white dwarf, like in a nova outburst (Ishida et al., 2004).

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