Re-brightening of the black hole candidate MAXI J1659-152

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*on **11 May 2011; 16:48 UT***
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We report on our newest Swift observation of the black hole candidate MAXI J1659-152 (ATel #2873, GCN #11296). One additional 5 ks observation was carried out after our previous report on a sudden drop of the source intensity (ATel #3298). The observation was taken on 2011-05-06 07:16:10 UT in Photon Counting mode.

The observation shows an unexpected increase of the source intensity. The spectrum can be adequately fitted with an absorbed power-law model. We obtained a column density NH=3.8+/-1.4e21 cm^-2, and the power-law photon index is 2.4+/-0.4. The column density is higher than what were measured in our previous observations (ATel #3201, ATel #3249). By fixing the column density to our previous average value 3e21 cm^-2 (ATel #3249), we obtained a photon index of 2.2+/-0.2. The unabsorbed flux measured using the fixed NH is 2.9e-12 erg cm^-2 s^-1 (0.3-10 keV), which transfers to a X-ray luminosity of 1.7e34 erg/s (assuming a distance d = 7kpc). This shows that the luminosity has increased 10 times within ~2 weeks.

We analyzed the UV/Optical data as well, and we could detect the source again in some filters compared to previous non-detections (ATel #3298). Therefore the optical brightness of MAXI J1659-152 has also increased as the X-ray flux intensity increased. Obtained magnitudes or upper limits for all filters are v > 18.76; b = 19.76 +/- 0.39; u > 19.41; uvw1 > 19.65; uvm2 > 19.70; uvw2 = 19.66 +/- 0.26.

We thank the Swift team for their arrangement of the observation. This work made use of data supplied by the UK Swift Science Data Centre at the University of Leicester.

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