

N12a X-ray study of stellar flares with MAXI/GSC: A universal correlation between the duration of a flare and its X-ray luminosity

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Since the launch in 2009 August, with the unprecedentedly high sensitivity as an all-sky X-ray monitor, MAXI have caught more than a hundred of huge flares from stars. Most of them are from cool, active stars (RS CVn systems, an Algol system, dMe systems, a dKe system, Young Stellar Objects). With the total radiative energy of 10^{34-39} ergs, the MAXI detections have broken the record of the largest flaring magnitudes in each stellar categories (e.g. “RS CVn” and so on). The enlarged sample of intense flares have enabled us to do systematic studies in various viewpoints. One of the studies is our discovery of a universal correlation between the flare duration and the intrinsic X-ray luminosity, which holds for 5 and 12 orders of magnitude in the duration and L_x , respectively. In this talk, we will present recent studies for flares detected with MAXI.