

W24b State Transitions of A New X-ray Outburst: MAXI J1727–203

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MAXI J1727–203 is a new transient X-ray source. The outburst was first observed by MAXI at the beginning of June 2018. Later, NICER and Swift operated observations in X-ray bands while GROND and ULTRACAM/NTT also observed the source in optical bands. The observations in broad energy range enable MAXI J1727–203 to be a ideal target to understand radiation processes in transient binaries. In this poster, we will present our studies of MAXI J1727–203 based on MAXI and NICER observations. During the two-month outburst, state transitions from hard to soft and back to hard have been seen. The spectral fittings indicate that the disk component experienced a less-variation evolution, and suggest that the variation of X-ray states was mainly caused by non-thermal emission. Assuming that the less-variation innermost disk radius as inner stable circular orbit of the accretion disk, we are able to obtain the black hole mass as a function of distance. Further we can discuss luminosities at different phases compared with Eddington limit.