

Chandra observation of the LMC supernova remnant N23

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Supernova Remnants (SNRs) which include a pulsar or a pulsar wind nebula (PWN), provide us meaningful information such as the age of the systems, the type of the remnants, and so on. Even though the Large Magellanic Clouds (LMC) quite meets requirements of the systematic study of SNRs, only 5 SNR samples in the LMC has been reported so far which includes a pulsar or a PWN. We discovered an X-ray compact source in a SNR N23 which located in LMC by Chandra observation. The compact source is seen in only the > 2 keV band image of N23. There is no possible counterpart for the source from previous observations, so that it is named CXOU J050552.3-680141. Its spectrum has the power-law distribution with the photon index of 2.4 and the absorption corrected luminosity of $1.1E34$ ergs/s in the 0.5-10 keV band for the distance of 50 kpc. Neither pulsation nor time variability of the source is detected with this observation. We conclude that the source is highly likely to be a PWN. We would like to discuss about the type of the remnant in the poster.