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Giant of the LMC: A multi-frequency view of the largest LMC SNR, J0450-7050

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This poster presents a multi-frequency view of one of the largest and most evolved supernova remnants (SNRs) in the Large Magellanic Cloud (LMC), J0450-7050. As one of the Milky Way's closest galactic neighbours, the LMC provides a clear view of the entire SNR population in the galaxy, allowing us to analyse their properties, evolution, and impact on the surrounding galaxy environment. J0450-7050 is an unusual SNR, displaying an extremely large size, high radio surface-brightness, and a flat radio spectral index, indicating unusual particle acceleration processes or environmental interaction. This poster presents new high-resolution radio images from the MeerKAT radio telescope, providing new insight into the radio-continuum morphology and particle acceleration properties. Optical data is also presented, which shows predominantly radiative shocks over the SNR, along with X-ray data which shows the interior thermal plasma. The multi-frequency view of this SNR demonstrates a complete view of the SNR properties, particle acceleration processes, shock processes, and overall evolution of this unusual SNR.

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