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Astrophysical Transients with MeerKAT and MeerLICHT

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In July 2018, MeerKAT was inaugurated and started its science mission. One of the 5-year legacy programs on MeerKAT is the ThunderKAT large survey project which aims to find, identify and understand high energy astrophysical processes via their radio emission. This is achieved through a program of surveying and monitoring Galactic synchrotron transients (X-ray binaries, Cataclysmic variables, Supernova and Gamma-ray bursts). Out of the ThunderKAT collaboration emerged a novel concept of real-time simultaneous radio and optical monitoring of the MeerKAT sky to fully characterise radio transients discovered in the data stream. Thus a new optical wide field telescope (MeerLICHT) was funded and constructed, and inaugurated in Sutherland in May 2018. MeerLICHT will provide simultaneous night time optical data for all MeerKAT pointings. In this presentation we will give an overview of some of the first scientific results from MeerKAT and MeerLICHT related to astrophysical transients.

Apply to be considered for a student award (Yes / No)?

No

Level for award (Hons, MSc, PhD, N/A)?

N/A

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