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## Detection of Supernova Remnants in the Large Magellanic Cloud at GeV Energies by Means of Cluster Analysis

We report results of a new search using a 15-year long (up to August, 4 2023) data set at energies higher than 4 GeV for SNRs in the Large Magellanic Cloud applying two clustering methods: the Minimum Spanning Tree (MST), and the combination of Density-Based Spatial Clustering of Applications with Noise (DBSCAN) and DENsity-based CLUstEring (DENCLUE).

We found positive indications for 8 new clusters with a spatial correspondence with SNRs, and increase the number of detected or candidate remnants in the high energy rays to 16 sources.

These findings confirm the capability of clustering algorithms to extract local photon concentrations even in not uniform fields like the LMC and extend our knowledge on the relation between the X-ray and gamma-ray SNRs at low luminosities.

## Collaboration(s)

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