

HIGH-ENERGY
ASTROPHYSICS IN THE
MULTI-MESSENGER ERA

EXPLORING MINIMAL DARK MATTER MODELS WITH GAMMA-RAY OBSERVATORIES



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PROPOSAL

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BEYOND WIMP MODELS:

- Scalar portal to the dark matter:
 $DM\ DM \rightarrow H\ H$, where H is a Higgs-like particle.
- Right-handed neutrino portal to the dark matter:
 $DM\ DM \rightarrow N_r\ N_r$, $N_r \rightarrow W e$, $Z \nu$

TARGET: GALACTIC CENTRE
Modeling the background through a template analysis

EXPERIMENTS:



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