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Astrophysical searches for particle dark matter

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Dark matter comprises the majority of the mass density of the universe, yet its identity is unknown. Well-motivated theories predict that dark matter is a new elementary particle of nature, which may be detected through a variety of astrophysical and terrestrial experiments. In this talk, I will discuss the recent progress that has been made using astroparticle experiments, focusing on direct searches with underground detectors, and experiments searching for high energy gamma-rays and cosmic rays produced by dark matter interactions. I will discuss the theoretical parameter space that these experiments are now probing, and highlight the progress and the possible ultimate limitations of forthcoming dark matter experiments.