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Prospects for Galactic Science with SWGO

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The forthcoming Southern Wide-field Gamma-ray Observatory will be located in Chile and ideally situated to observe the southern Galactic Plane. With its continuous survey capabilities and large collection area at high energies ≥ 100 TeV, SWGO will significantly contribute to studies of galactic gamma-ray sources. In this contribution, we refine the galactic science case for SWGO in light of recent progress in gamma-ray astronomy as well as the site selection and design of the facility. We anticipate the discovery potential for SWGO in the Southern sky, particularly with regard to extended sources such as supernova remnants, pulsar wind nebulae and halos, stellar clusters and diffuse emission, as well as continuous monitoring and large-scale sky surveys suitable for e.g. binary systems and globular clusters.

Collaboration(s)

SWGO Collaboration

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