

Search for supersymmetric dark matter with GLAST

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Abstract. The dark matter puzzle is currently one of the most interesting challenges confronting particle astrophysics and cosmology. The lightest supersymmetric particle (LSP), is a reasonable, and perhaps the most promising, candidate for the dark matter of the universe. The neutralino annihilation into the $\gamma\gamma$ and γZ final states can

give rise to gamma rays with unique energies. GLAST can search for gamma-ray lines in the mass above 30 GeV thanks to its excellent energy resolution. The portion of the Supersymmetric Models parameters space that can be explored will be examined.