

Abstract Submitted
for the 4CF09 Meeting of
The American Physical Society

Geminga and the Diffuse Source Sensitivity of Imaging Air Cherenkov Telescopes DANIEL KIEDA, West High School, Salt Lake City, Utah — Geminga, a supernova remnant, is a source of high energy ($E > 1$ GeV) gamma rays. The Milagro, Fermi, and EGRET observatories have detected high energy gamma rays from Geminga below 10 GeV and above 10 TeV energies. Imaging Atmospheric Cherenkov Telescopes (IACTs) such as VERITAS and MAGIC have been unable to detect this source between 100 GeV and 10 TeV energies. In this talk, I have analyzed the sensitivity of various IACT observatories as a function of the angular extent of observed sources. This analysis demonstrates that IACT sensitivity decreases with increasing source diameter. The large angular extent of Geminga (2.6 degrees, as determined by Milagro) is the likely reason why VERITAS and MAGIC have not yet detected this source.

Daniel Kieda
West High School, Salt Lake City, Utah

Date submitted: 23 Sep 2009

Electronic form version 1.4