

A Probability Density Method for VHE Gamma-Ray Source Analysis.

Contributed by Alex Syson
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A probability density method for VHE gamma-ray source analysis, applicable to both stand alone IAC telescopes and stereoscopic arrays, is presented here. Developed using simulations and Crab data for the Whipple 10m telescope, the technique covers both two-dimensional image and spectral analyses, and background subtraction is implemented either by a modified standard approach using cuts on Hillas parameters, or by a kernel multivariate analysis. The probabilistic method adopted can also be extended into a log likelihood technique where data characteristics such as source strength, extension, or multiple sources within the field of view can be determined.