
VEGAS , the VERITAS Gamma-ray Analysis Suite

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VERITAS, the Very Energetic Radiation Imaging Telescope Array System, is an array of four 12 m diameter imaging atmospheric Cherenkov telescopes for gamma-ray astronomy above 100 GeV currently in operation in Arizona. The VERITAS Collaboration has developed VEGAS, the VERITAS Gamma-ray Analysis Suite, a data-analysis software package for the processing of single- and multiple-telescope data produced by the array. The package consists of a core of six stages as well as visualisation and diagnostic components. It has been developed in C++ using modern objected-oriented design patterns to be highly flexible, configurable and extendable. VEGAS utilises CERN's ROOT data-analysis framework and runs on Linux and Mac OS X systems. The architecture and structure of the VEGAS package will be described in detail while the data analysis algorithms are described in additional papers.