

Abstract Submitted
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Applying Several-Order Autocorrelation Functions To Obtain An Optical Crab Pulsar Light Curve JOSE CARDOZA, University of Utah Department of Physics, VERITAS COLLABORATION — The Crab Nebula was the first steady VHE gamma-ray emitter discovered, and has recently been detected by the VERITAS gamma ray observatory. The 33 millisecond-period Crab Pulsar, located at the center of the plerion, is a spinning neutron star that provides most of the power needed for the broad-band emission spectrum of the nebula. Periodic emission by the pulsar has never been reliably detected in VHE gamma rays. In this talk, I will describe the detection of the steady state VHE gamma ray emission from the nebula. I will also describe the application of autocorrelation functions of several orders to optical data as a first step towards developing a technique for detecting periodic emission from the pulsar.

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