

# Exploiting VERITAS Timing Information

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**Abstract:** The 499 pixel photomultiplier cameras of the VERITAS gamma ray telescopes are instrumented with 500MHz sampling Flash ADCs. This paper describes a preliminary investigation of the best methods by which to exploit this information so as to optimize the signal-to-noise ratio for the detection of Cherenkov light pulses. The FADCs also provide unprecedented resolution for the study of the timing characteristics of Cherenkov images of cosmic-ray and gamma-ray air showers. This capability is discussed, together with the implications for gamma-hadron separation.