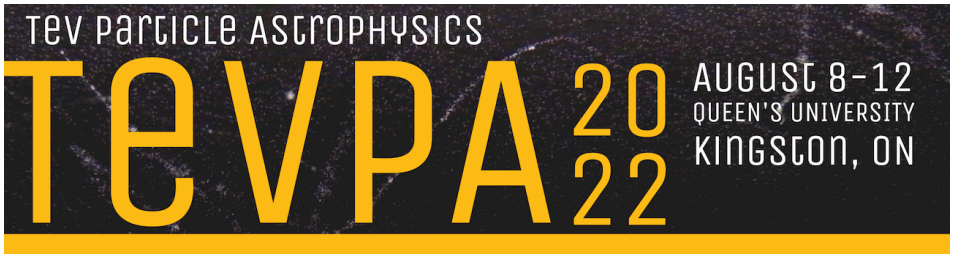

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VERITAS Observations of Fast Radio Bursts

Tuesday 9 August 2022 15:00 (20 minutes)

Gamma-ray observations of extreme astrophysical transient phenomena continue to play an important role in understanding both the physical emission mechanisms in these sources and their contribution to the cosmic-ray population. One transient class that continues to expand, but remains difficult to understand, are Fast Radio Bursts (FRBs). Due to their sporadic and short-lived emission (˜ms), capturing multi-wavelength data for these sources has proven challenging, and there still remain relatively few simultaneous measurements. Imaging Atmospheric Cherenkov Telescopes like VERITAS naturally carry with them a high sensitivity to rapid events compared to other instruments, and as future generations of telescopes begin to come online, understanding the challenges and techniques for these observations is critically important. In this talk, I will summarize the VERITAS FRB program including simultaneous observation of three new bursts in 2021 from FRB20180916B, and ongoing work with 6 other repeating FRBs. VERITAS's rapid optical observations of these sources will also be presented.

Collaboration name

VERITAS

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