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Studies of Supernova Remnants and Pulsar Wind Nebulae with VERITAS

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Supernova remnants (SNRs) and pulsar wind nebulae (PWNe) are key classes of Galactic particle accelerators and are generally thought to be responsible for providing the bulk of cosmic rays in the Galaxy up to the knee. VERITAS observations of SNRs and PWNe in the very high energy (VHE; E > 100 GeV) range provide critical information to help us understand the nature of these accelerators, including the types of particles (leptons, hadrons, or a mix?) responsible for their VHE emission, as well as the maximum energies which they can reach. VERITAS, as an array of four imaging atmospheric Cherenkov telescopes, also provides sufficient angular resolution to correlate VHE emission with gamma-ray emission at higher (HAWC, LHAASO) and lower (Fermi-LAT) energies, as well as potential counterparts - whether compact objects, molecular clouds, or other structures - observed at other wavelengths. In this talk, we will summarize recent results from VERITAS, focusing on updated gamma-ray maps and spectra for IC 443, a resolved gamma-ray SNR interacting with molecular and atomic clouds in its vicinity.

Primary author: HUMENSKY, Brian (NASA Goddard Space Flight Center)

Presenter: HUMENSKY, Brian (NASA Goddard Space Flight Center)

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