

## **The Solar Tower Atmospheric Cherenkov Effect Experiment (STACEE): New Results at 100 GeV**

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The Solar Tower Atmospheric Cherenkov Effect Experiment (STACEE) is a new instrument for observing astrophysical sources of gamma-rays in the energy range from 40 to 250 GeV. This energy range corresponds to an “unopened window”, beyond the current reach of space-based experiments such as EGRET and below the energy threshold of ground-based experiments such as Whipple. STACEE is located at the National Solar Thermal Test Facility at Sandia Laboratories in Albuquerque, New Mexico. STACEE uses several large heliostat mirrors at night to collect Cherenkov light from gamma-ray air showers. Construction of the STACEE experiment is underway. A partial version of STACEE has been conducting observations on a regular basis since October 1998. We present results from the 1998-1999 observing season, highlighting STACEE observations of the Crab Nebula and Pulsar. STACEE detects the Crab Nebula with high statistical significance ( $>7$  sigma) at 100 GeV. We also describe progress on the STACEE instrument, which will be completed by 2000, and plans for observations of other sources, including AGN, SNR, and unidentified EGRET sources.