

APR10-2009-020083

Abstract for an Invited Paper
for the APR10 Meeting of
the American Physical Society

Gamma-Ray Emission from Supernova Remnants

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The last few years have brought significant advances in our understanding of acceleration processes at work in shell-type as well as in plerionic Supernova remnants through observations from X-rays to VHE Gamma-rays. Unprecedented morphological studies of gamma-ray emission from shell-type Supernova remnants show a striking correlation to X-ray emission. Gamma-ray energy spectra of up to 100 TeV confirm particle acceleration up to the “knee” in the Cosmic ray spectrum at 1 PeV in these objects. All these measurements can now be complemented with data from the recently-launched Fermi-LAT, operating in the energy range between 20 MeV and 300 GeV. Fermi-LAT data will constrain gamma-ray emission models and allow studies of the parent population accelerated in these objects. I will review the current observational status of gamma-ray emission in supernova remnants.