

TeV GAMMA RAY OBSERVATIONS OF SHELL-TYPE SUPERNOVA REMNANTS BY THE CAT TELESCOPE (1999-2001)

B. Khelifi (6), A. Barrau (4), R. Bazer-Bachi (1), L.-M. Chounet (3), G. Debais (2), B. Degrange (3), J.-P. Dezalay (1), A. Djannati-Ataï (6), P. Espigat (6), B. Fabre (2), P. Fleury (3), G. Fontaine (3), P. Goret (7), C. Gouiffes (7), I. Malet (1), C. Masterson (6), G. Mohanty (3), E. Nuss (2), M. Punch (6), C. Renault (4), M. Rivoal (4), L. Rob (5), J.-P. Tavernet (4) and S. Vorobiov (3)

(1) Centre d'Etudes Spatiales des Rayonnements, Toulouse, France (Université Paul Sabatier et INSU/CNRS), (2) Groupe de Physique Fondamentale, Université de Perpignana, France, (3) Laboratoire de Physique Nucléaire des hautes Energies, Ecole Polytechnique, Palaiseau, France (IN2P3/CNRS), (4) Laboratoire de Physique Nucléaire des hautes Energies, Université Paris VI/VII, France (IN2P3/CNRS), (5) Nuclear Center, Charles University, Prague, Czech Republic, (6) Physique Corpusculaire et Cosmologie, Collège de France et Université Paris VII, France (IN2P3/CNRS), (7) Service d'Astrophysique, centre d'Etudes de Saclay, France (DAPNIA/CEA).

`khelifi@in2p3.fr`

Recently, a number of interesting results have been published on TeV gamma ray observations of Supernova remnants. The CAT Atmospheric Cerenkov telescope situated in the French Pyrenees has undertaken a program of observations of a number of these objects between 1999 and 2001.

Targets were selected based on proximity, apparent size and spectral properties at other wavelengths. Here we report on the results of these observations.