Broadband Spectral Modeling of NGC 253 from Hard X-rays to TeV Gamma Rays

TONIA VENTERS, NASA Goddard Space Flight Center, DANIEL WIK, BRET LEHMER, MIHOKO YUKITA, Johns Hopkins University; NASA Goddard Space Flight Center, ANN HORNSCHEMEIER, ANDREW PTAK, NASA Goddard Space Flight Center, ANDREAS ZEZAS, University of Crete, KEITH BECHTOL, University of Chicago, MEGAN ARGO, ASTRON, VALLIA ANTONIOU, Harvard-Smithsonian Center for Astrophysics, FIONA HARRISON, Caltech, ROMAN KRIVONOS, UC Berkeley, JEAN-CHRISTOPHE LEYDER, NASA Goddard Space Flight Center; Universities Space Research Association, THOMAS MACCARONE, Texas Tech University, DANIEL STERN, JPL/Caltech, WILLIAM ZHANG, NASA Goddard Space Flight Center, NUSTAR SCIENCE TEAM — We present the latest results from detailed broadband spectral modeling of the nearby starburst galaxy NGC 253 from keV to TeV energies. The mechanism for producing the gamma-ray emission in starburst galaxies is difficult to determine solely from Fermi-LAT and HESS data. NuSTAR observations of NGC 253 in the hard X-ray band (10–30 keV) provide the most sensitive observations to date of the non-thermal emission in that bandpass, which in turn may constrain the role of hadronic and leptonic interactions in producing the GeV emission.