

Tracking the Big One: The Evolving Radio Afterglow of the Giant Flare from SGR 1806-20

J. Gelfand (1), C. Kouveliotou (2), B. Gaensler (1), G. Taylor (3) D. Eichler (4) Y. Lyubarsky (4) J. Granot (5) E. Ramirez-Ruiz (6) K. Newton-McGee (7) R. Wijers (8)
(1) Harvard-Smithsonian CfA (2) NASA (3) Univ. of New Mexico (4) Ben Gurion University
(5) SLAC (6) IAS (7) Univ. of Sydney (8) ASTRON

On 2004 December 27, SGR 1806-20 emitted the brightest Gamma-ray flare ever observed, outshining the entire Milky Way for a fraction in this poster. This flare also created a radio nebula, which is believed to be produced by material ejected from the surface of the neutron star. Using a suite of radio telescopes we have been measuring the flux, size, spectrum, shape and proper motion of this source allowing us to derive estimates of the initial mass and energy as well as model the interaction of this material and its environment. In this poster, we present the most recent results from this campaign, as well as its implications for the physical mechanism behind the 2004 Dec. 27 flare.