

GRO J2058+42 Observations with BATSE and RXTE

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GRO J2058+42 is a 196 second pulsar discovered with BATSE during a giant outburst in 1995. It underwent a series of 9 weaker outbursts from 1995 to 1997 which alternated in pulsed intensity, with a 110 day cycle in the 20-50 keV band (Wilson, C.A. et al. 1998, ApJ, 499, 820). These outbursts did not show the same intensity variations in the 2-10 keV observations with the RXTE ASM (Corbet, R. et al., 1997, IAU Circ. 6556). Additional outbursts after this series were observed with BATSE, using a more sensitive search method which accounts for excess aperiodic noise from Cygnus X-1, and with the RXTE PCA and ASM. A set of two outbursts, one “periastron” and one “apastron” outburst (assuming a 110 day orbital period) were observed with the RXTE PCA. Pulse shape differences were found between the two outbursts. Histories of pulse frequency, pulsed flux, and total flux are presented. Pulse profiles and spectra from PCA observations are also presented.