

STATUS OF A SEARCH FOR RADIO EMISSION FROM THE YOUNG 16-MS X-RAY PULSAR PSR J0537-6910

F. Crawford (1), M. McLaughlin (2), S. Johnston (3), R. Romani (4) and E. Sorrelgreen (1)

(1) Haverford College, (2) Jodrell Bank, (3) University of Sydney, (4) Stanford University
(Email: fcrawfor@haverford.edu, Fax: 610-896-4904)

We report on progress in our search for radio emission from the young 16-ms X-ray pulsar PSR J0537-6910 in the Large Magellanic Cloud. The very large value of the pulsar's magnetic field at the light cylinder radius suggests that this pulsar may be emitting giant radio pulses like those seen in other pulsars with similar field strengths. Using the Parkes 64-m telescope, we have obtained a 12 hour observation of this pulsar at 20 cm with high time and frequency resolution in order to search for previously undetected radio pulsations (both giant and standard). A non-detection of radio pulsations would yield upper limits for the radio luminosity which are likely to be the best available for the pulsar for the foreseeable future. Processing of the large data set is still underway at several sites and is likely to be complete by the time of the meeting.