

## Technical Page

Proposal Type: Short  
 General Category: Pulsars  
 Observation Category:  
 Total Time Requested: 15 Hours

**Proposal Title:** Multi-frequency timing observations of a new distant pulsar

**ABSTRACT:**

In search of radio pulsations from the magnetar SGR 1900+14, we serendipitously discovered a faint, 226-ms pulsar PSR J1907+0918. The dispersion measure of 400 places the pulsar at a distance of roughly 8 kpc. Initial estimates of the period derivative imply that the pulsar's age is at least 35 kyr. The close proximity of this potentially youthful neutron star to the supernova remnant G42.8+0.6, itself presently thought to be associated with the magnetar, is intriguing and merits further investion. In addition to other supernova remnants in the vicinity, an x-ray source is, within the present positional uncertainties, coincident with the position of J1907+0918. In this proposal we request observing time to establish the spin and astrometric parameters of the pulsar which will clarify our understanding of this interesting region of the Galaxy.

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**Service Observing Request**

**Remot e Observing Request**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> None<br><input type="checkbox"/> All of the observing run.<br><input type="checkbox"/> Part of the observing run.<br><input type="checkbox"/> Queue Observing | <input checked="" type="checkbox"/> No<br><input type="checkbox"/> Maybe<br><input type="checkbox"/> Yes |
|---|--|

**Instrument Setup**

430 MHz Gregorian      610 MHz      L-band      S-band radar

**Atmospheric Observation Instruments:**

**Description of Observer Equipment:**

**Special Equipment or setup:** Special setup: ABPP PSPM AOFTM    Software needs:    Media needs:

**RFI Considerations**

## Frequency Ranges Planned

see proposal