

Technical Page

Proposal Type: Regular
 General Category: Pulsars
 Observation Category:
 Total Time Requested: 3.5 Hours

Proposal Title: Soft X-ray transient 1H 1905+000: the closest counterpart to the millisecond radio pulsars.

ABSTRACT:

Why do transient X-ray pulsars not 'turn-on' their radio emission in their quiescent period, when the accretion has halted? After all, they already have the same typical magnetic field strength and period as millisecond radio pulsars (MSPs) and we know they transform into MSPs later. Possibly their thermal emission initially continues to quench the cascade thought to produce robust radio emission.

With Chandra we have recently found 1H1905+000 to be the dimmest, coldest transient X-ray pulsar known, making it the closest counterpart to the MSPs. We therefore propose to search 1H1905+000 for radio pulsations to learn about this interaction between accretion, thermal radiation and the radio-pulsar emission mechanism.

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Service Observing Request

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

Remote Observing Request

- No
- Maybe
- Yes

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1120-1520

This proposal requires Iridium RFI protection at 1612 MHz between 10pm and 6am EST.

This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz..

This proposal requires coordination with GPS L3 at 1381 MHz.