

Technical Page

Proposal Type:
 General Category: Planetary Radar
 Observation Category: Solar System
 Total Time Requested: 72 (3x24 hrs) Hours

Proposal Title: High-Resolution UHF Radar Search for Interstellar Particle Source(s).

ABSTRACT:

Observations to date have yielded 3 apparently interstellar particles (ISPs) as determined from hyperbolic heliocentric orbits that do not come near to the moon or to the major planets. As described in the commentary, the galactic radiant/orbit of these 3 particles suggest a common source. We propose a series of three 24 hour observations spaced through the year in an effort to find more ISPs in both heliocentric retro/prograde orbits and thus confirm or deny this source which may be associated with the local bubble produced by the Geminga supernova. It is important that we make these observations soon as the hypothesized source will in a few years at most become unobservable due to resultant ISP orbits crossing prohibitively near to Jupiter and Saturn. In addition to the radar observations we propose common-volume, radar IPP-synchronous, photometric observations of meteors using one of the large lidar mirrors.

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Service Observing Request

Remote Observing Request

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

Instrument Setup

47 MHz CH 430 MHz CH receiver

Atmospheric Observation Instruments:

Lidar

Description of Observer Equipment: photometer setup ready to attach to the lidar system

Special Equipment or setup: Special setup: None Software needs: Media needs: exabyte

RFI Considerations

Frequency Ranges Planned

see proposal