

SO/PHI data request form

(Cruise phase + first science orbit; SO/PHI-Team internal version)

Title

Relation between explosive events and campfires

(L. Teriaca, Z. Huang)

MPS

Science case: Relation between Explosive Events and Campfires

- EUI sees small localized brightenings ubiquitous of quiet Sun regions, the campfires
- They have length scales between 400 and 4000 km and last between 10 and 200 s
- Occur at heights between 1 and 5 Mm and seem to be mostly coronal.
- They are mostly located along the network boundaries, suggesting relation to magnetic field concentrations.
- The location and relatively low height opens the question of the possible relation with the transition region explosive events: high velocity bidirectional jets with typical spectroscopic signature.
- In March 2022 SolO will cross the Sun-Earth line while at 0.5 AU distance from the Sun. Combined IRIS, EUI and SPICE observations are foreseen for that period.
- PHI data would be of high importance in determining the magnetic structure associated to these events and to understand the nature of these two types of events and how they are (or not) related to each other.

Requirements/data

- Type of solar feature: Quiet Sun
- HRT or FDT: HRT
- Physical parameters needed: B_{los}
- Total length of observation: at least 10 min
- Cadence (maximum 1 dataset/min): 1 min
- Pointing needs (disc center, limb, active region location, particular μ): Disk center
- Orbit needs: angle to Earth as small as possible
- Total number of datasets: 10
- Full frame: 2k x 2k
- Full resolution or 2x2, 4x4 binned data: Full resolution
- noise level (default 10^{-3}): default
- Co-observations with other instruments: EUV, SPICE, IRIS
- Special requests: None