

193rd Hinode SSC Meeting on 23rd February, 2023 at 07:00 JST

Short Summary, Conclusions and Actions

a. Program Status

1. Instrument Status Review

SOT is nominal.

XRT is nominal

EIS is nominal.

2. Report on Changes to Instrument Telemetry Allocation

There are no further reports on telemetry allocation changes.

No issues with the new arrangement for periods when telemetry useage is unusually high have been reported.

3. FM Calendar

Currently in Normal Mode.

4. HOP Prioritisation

SSC asked by SWG to prioritise HOPs i) with associated ground-based observations that were overlapping in a time zone and ii) in cases that generated mission telemetry use conflicts.

ACTION: Culhane to ensure that such cases were highlighted in SSC meeting notes; Ongoing

b. Action Items.

Savage to email Landi re HOP 450 pointing

“ to ask Janvier to submit HOP 452 request in Hinode format

Matthews to discuss EIS details for HOP 454 with SOOP team

“ to coordinate EIS and XRT telemetry useage for HOP 456

to check EIS time requests for HOP 458

Baker to check timing for HOP 454 EIS mosaic to avoid overlap

“ to update details of suitable EIS studies for HOP 460

EIS Team to send any HOP 457 EIS study changes to Savage and Watanabe

“ to send details of new study for HOP 459 to Savage

c. Review/Discussion of Open HOPs and ToOs

Polar mapping is on-going

HOP 344 should be run **29th/30th April**

HOP 412 to be run on **24th March**

d. Review of New or Updated Proposals and Scheduling of Observations

New HOPs

EIS Observations in Support of Total Eclipse Ground Observations – Landi (elandi@umich.edu), Matthews/SSC, Culhane/SSC – HOP 450

- carry out large FOV observations at the solar limb during totality including strong diagnostic lines
- target(s) of interest: in order of priority: Coronal holes, Quiet Sun, Active regions
- EIS and XRT observations requested; no request to SOT and IRIS
- date: 20th April; time: 04:00 UT – 05:00 UT
- **Savage** to email **Landi** with question about pointing

Plasma Composition Evolution in Active Region Leading and Following Polarities – Mihailescu (teodora.mihailescu.19@ucl.ac.uk), Baker, De Pontieu, Long, Green, Matthews/SSC, Culhane/SSC – ToO HOP 451

- tracking the coronal composition (using Hinode EIS) and plasma temperature at chromospheric heights (using IRIS) in the leading and following polarities of an active region over a few days
- target of interest: active region East of central meridian with at least one sunspot
- EIS and IRIS requests are accepted; SOT context magnetogram if possible but not essential

Solar Orbiter Observing Plans (SOOPs) and related HOPs

Cross-calibration of the Solar Orbiter Polarimetric and Helioseismic Imager (SO/PHI) - Orozco (orozco@iaa.es), Valori, Hirzberger, Savage/SSC, Watanabe/SSC, De Pontieu/SSC – HOP 452

- Hinode support request for PHI cross-calibration with Hinode/SP
- no request for EIS or XRT
- target: Active Region close to central meridian
- dates/times: 27th March/ 03:10 UT – 04:00 UT and 29th March/06:00 UT – 07:00 UT
- CoIs to coordinate with SOOP PIs
- **Savage** to ask **Janvier** to submit request in Hinode format
- link to SO planning page will give access to target list

EIS and SPICE Composition Mosaics – To (shu.to.18@ucl.ac.uk), Janvier, Baker, Brooks, Yardley, Savage/SSC, Watanabe/SSC, De Pontieu/SSC – HOP 453

- produce co-temporal (nearly) full-disk composition maps using SPICE and EIS
- no request for SOT
- XRT request: thin-Be, Al-med and Be-med images to be run once during each EIS raster
- EIS: Study DHB_007_v3; ID: 601; Raster: AbundRaster_v3, Slit: 2” Step_Size: 6” Exposure Time: 45 s
- operate jointly with SOOP: L_SMALL_MRES_MCAD_Composition-Mosaic
- dates: 27th – 29th April; time window: ~40 hrs (EIS) starting Apr 27th at 5 UT; end prior to 6 UT on Apr 29th during SPICE mosaic of 48 hr

Dynamics of Coronal Loops related to Footpoint Motions – Peter (peter@mps.mpg.de), Castellanos-Duran, Parenti, Savage/SSC, Watanabe/SSC, De Pontieu/SSC – HOP 454

- observing loops and their footpoint regions in an active region at high cadence with the goal to unveil how footpoint motions and changes of the magnetic field drive the dynamics in the loops
- details of SOT, EIS and XRT requests are given in the HOP list
- dates: 29th March; 11:15 UT-15:50 UT and 15:50 UT -20:10 UT; 10th April; 20:00 UT -23:44 UT
- additional request from Castellanos Duran focused on spectroscopy: 7th April; was submitted

- for EIS observations: **Matthews** to discuss details with SOOP team; **Baker** to check timing for EIS mosaic to avoid overlap

Release of the Slow Solar Wind at Active Region or Coronal Hole Boundaries – Yardley (s.l.yardley@reading.ac.uk), **James** (alexander.james@jucl.ac.uk), **Baker, Brooks, Eklund, Savage/SSC, Watanabe/SSC, De Pontieu/SSC – HOP 455**

- investigate the physical processes involved in the release of the slow solar wind at active region or coronal hole boundaries
- no request for SOT
- XRT observation requests for AR and CH are accepted
- details of EIS observations are given in the HOP list
- ALMA observations are not available
- dates: 30th March – 1st April, 2023; time window: 00 - 23:52 UT (~3 days)

Search for Evidence of Nonthermal Proton Beams During Major Flare Watch – Inglis (andrew.inglis@nasa.gov), **Brosius** (jeffrey.w.brosius@nasa.gov), **Kucera, Young, Kerr, Savage/SSC, Watanabe/SSC, De Pontieu/SSC – HOP 456**

- obtain EIS and IRIS flare stare spectra within the same active region as that from which SPICE flare stare spectra will be obtained
- run during SO Major Flare Watch
- no request for SOT
- XRT observation requests are accepted
- EIS to run FLAREDOP_EIS: Study ID 472: Raster ID 449; **Matthews** to coordinate EIS and XRT telemetry usage
- date: 3rd April; time window: 09:00 - 17:56 UT

New run of IHOP 429 in conjunction with Solar Orbiter – Parenti (susanna.parenti@universite-paris-saclay.fr), **Savage/SSC, Watanabe/SSC, De Pontieu/SSC – HOP 457**

- study small scale dynamics events as explained in HOP 429
- details of SOT, EIS and XRT requests are given in the HOP list
- SOT and XRT requests are accepted; XRT not available on 4th April due to bakeout
- EIS requests are accepted; EIS team will send any study changes to **Savage** and **Watanabe**
- coordination with Solar Orbiter [SOOP: R_BOTH_HRES_HCAD_nanoflares]
- dates: 4th, 5th and 11th April

SOOP: Remote Sensing Burst: PHI Stereoscapy - Castellanos Duran (castellanos@mps.mpg.de), **Peter, Valori, Hirzberger, Parenti, Savage/SSC, Watanabe/SSC, De Pontieu/SSC – HOP 458**

- characterize the magnetic configuration of the active region by solving the azimuth 180 deg ambiguity using the two-point of view.
- details of SOT, EIS and XRT requests are given in the HOP list
- SOT and XRT requests are accepted
- **Matthews** to check the EIS time requests
- dates: 6th and 7th April

SOOP: Nanoflares Flux Replacement in the Network - Bellot-Rubio (lbello@iaa.es), **Savage/SSC, Watanabe/SSC, De Pontieu/SSC – HOP 459**

- determine how magnetic flux from the internetwork interacts with the magnetic network and eventually becomes part of the network
- no XRT request
- EIS team has created new study: #643 cool_loop_network; details to be sent to **Savage**

- SOT/SP is primary instrument; request 9 normal maps, 82" x 82"; time interval 03:15 UT - 09:38 UT; each map will take ~ 45 minutes to complete and will generate 0.3Gb of data
- date: 10th April

SOOP: Nanoflares. Prominence and/or an Active Region at the Limb as seen from Solar Orbiter – Parenti (susanna.parenti@universite-paris-saclay.fr), Kucera, Savage/SSC, Watanabe/SSC, De Pontieu/SSC - HOP 460

- observation of a prominence and/or an active region at the limb as seen from Solar Orbiter
- no SOT request
- XRT request: CME watch programme; **Savage** to ask if disc centre or limb pointing is required
- EIS request: **Baker** to update details of suitable studies
- date: 15th April; time window: 02:00 UT – 13:45 UT

SOOP: Polar Observations. Observing both Poles simultaneously with Solar Orbiter (SO) and Hinode from two Different Viewing Angles – Sinjan (sinjan@mps.mpg.de), Loschl (loeschl@mps.mpg.de), Savage/SSC, Watanabe/SSC, De Pontieu/SSC – HOP 461

- perform coordinated observations of both poles with the Solar Orbiter instruments and Hinode
- SOT request: fast deep map of South polar region; detail given in HOP list
- XRT request: accepted; may not be able to do long exposures; G band observation may not be useful
- EIS request accepted
- date: 24th April

SOOP: Boundary Expansion. Hinode/EIS support for Solar Orbiter during CH Boundary Expansion – Ngampoopun (nawin.ngampoopun.21@ucl.ac.uk), Spadaro, Baker, Brooks, Savage/SSC, Watanabe/SSC, De Pontieu/SSC – HOP462

- Hinode/EIS support for Solar Orbiter/METIS Observation taken during CH-Boundary-Expansion SOOP campaign on 9 April 2023
- no SOT request
- EIS request accepted; new study to be updated
- XRT request accepted but 30s exposure provided as often as possible
- date: 9th April; time window: 00:00 UT – 23:59 UT

Continuing monthly observations are:

- **Polar Monitoring - Shimojo; CORE HOP 81**
run on **5th March** (S pole deep) and **8th March** (N pole fast) – note: min B angle for S pole on **5th March**
- **North Polar Panorama Map – Shimojo; HOP 206**
March dates are: **1st, 4th 7th, 10th, 13th, 16th 19th and 22nd**
- **Multi-temperature Full Disk Slot Scans – Ugarte-Urra, Brooks, Warren; CORE HOP 130**
run on **28th February** and **21st March**
- **Synoptic SOT Irradiance Scans – Egeland, Centeno; CORE HOP 412**
run on **15th March** (could be delayed)
- **Cycle 24/25 Equatorial Transition - Egeland, Bryans, Centeno, Savage, Watanabe, De Pontieu; HOP 393**
run every Saturday; **4th, 11th, 18th and 25th March**

Adjustments may be necessary due to SO HOPs

Monthly Science Reports

- next **Hinode** monthly science report will be prepared by the **SOT Team** for **March 15th**.
- **NOTE:** Science chart site access has been changed due to IT requirements; **Savage** has established a new Google drive site for template and previous chart
- provide one summary slide for Hinode team management at MSFC and two additional slides for NASA HQ

f. Date of Next Meeting

- next meeting: **23rd March, 2022** at **07:00 JST** and **22nd March** as appropriate in US/Europe

g. AOB

On-going reminder: press-worthy Hinode highlights to be sent to **Savage** prior to publication.
NASA Senior Review will be presented in the middle of **April**.