



Coordination of LTP0607 SOOP

R_BOTH_HRES_HCAD_Nanoflares

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SOOP science goals

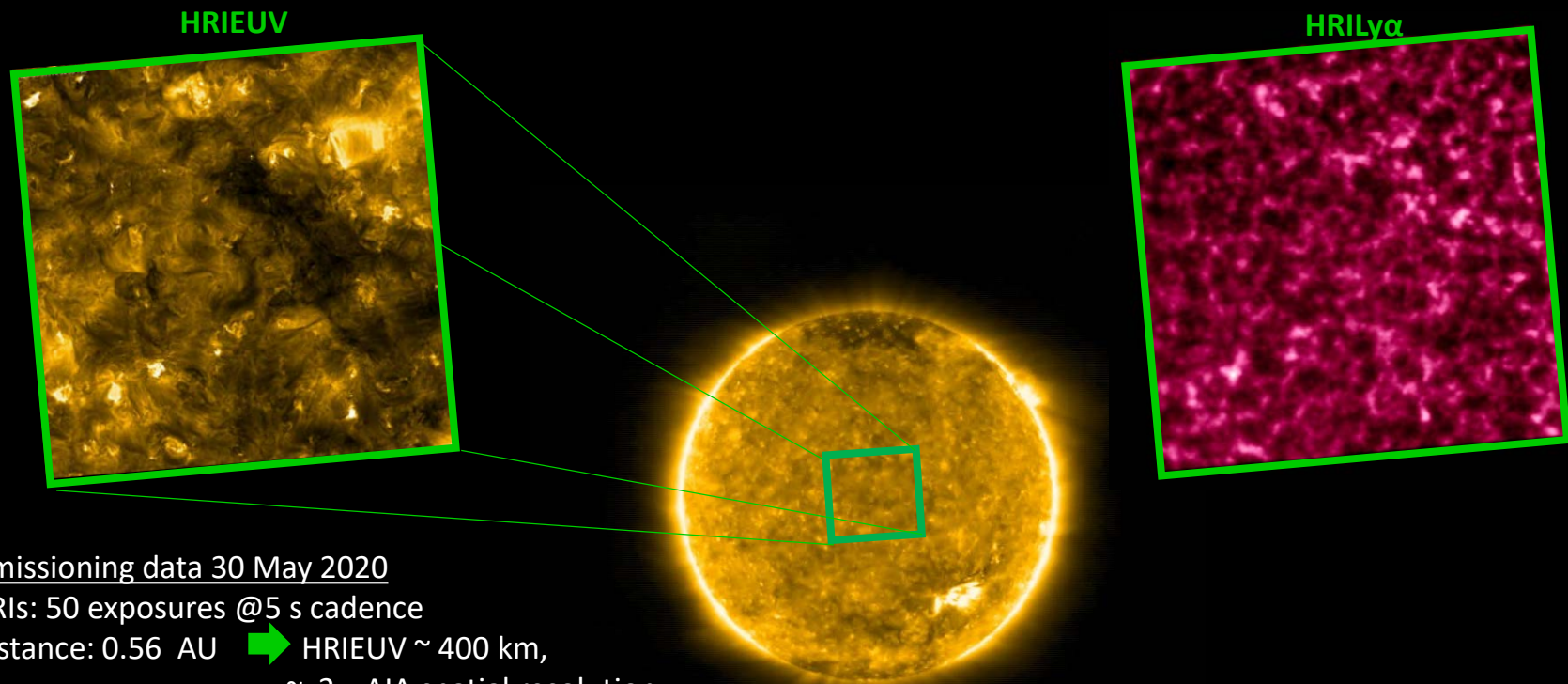
To use the high cadence capabilities of the RSI to

- Understand the role of the small scales features in the heating of the coronal
- Discover new small scales activity.

Properties (size, cadence, dynamics, temporal variation of plasma parameter...).



Previous observations: EUI in Quiet Sun



Commissioning data 30 May 2020

- HRIs: 50 exposures @5 s cadence
- Distance: 0.56 AU → HRIEUV ~ 400 km,
~ 2 x AIA spatial resolution

Berghmans et al. 2021

Commissioning data 23 February 2021

- HRIs: 2 s cadence + SPICE 5s cadence



RSW1: 2-11 March 2021 (0.56 -0.44 AU)

Earth conjunction

- 7 March 05:30-08:30 – R_small_HRES_MCAD_polar-Observations
 - Nanoflares SOOP running ~ 0.5h. Spicules/small scales features at the limb. ‘campfires’ in CH. **To be discussed more.**
- 7 March 08:30-11:30 – AR.
 - Small scales features are the same as those of QS?
 - ~ 0.5h high cadence + medium cadence (**under discussion**)
- 8 March 00:00-03:00 – QS
 - ~ 0.5h high cadence + medium cadence (**under discussion**)

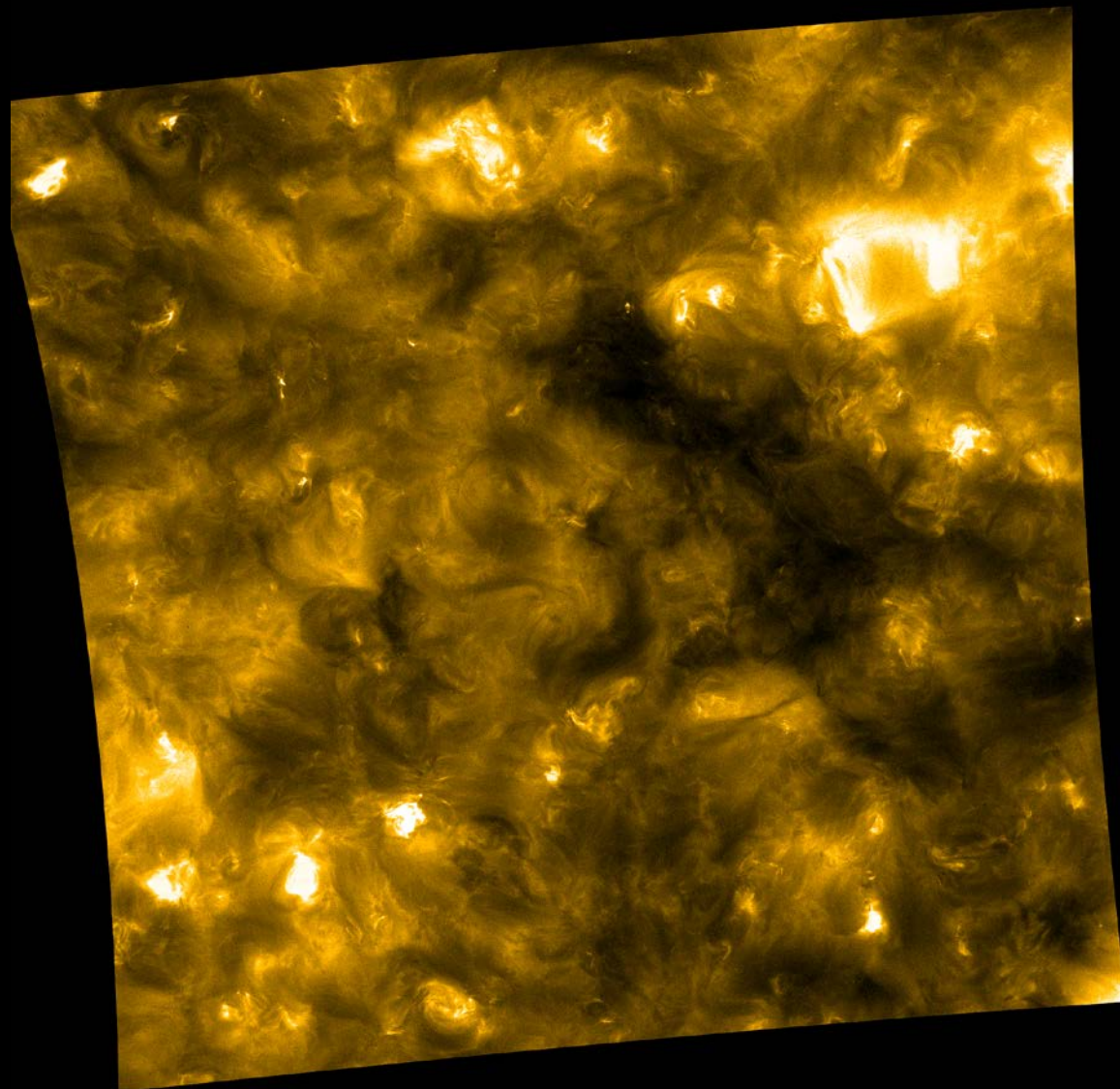
Solo (cadence): SPICE (5s), EUI/HRIs (2s, 5s), PHI/HRT (1 min), STIX (20s in AR, faster for flares)

Earth LOS coordination: plasma diagnostics (Chromosphere-Corona), dynamics, photospheric magnetic field and flows.

SDO/AIA (HMI), Hinode, IRIS. More (on ground) TBD



EUI/HRIEUV - AIA 171





RSW2: 17-26 March 2021 (0.38 -0.32 AU) Perihelion + quadrature

- 17 March 00:00-06:00 – QS (Sun center)
 - Small scale features in quadrature with Earth – finest scales
 - ~ 0.5h high cadence + medium cadence (under discussion)

RSW3: 27 March-5 April 2021 (0.32 -0.39 AU) Perihelion + quadrature

- 30 March 00:00-06:00 – QS (Sun center)
 - Spicules/small scales features at the limb - finest scales
 - Running ~ 0.5h + medium cadence

Earth LOS limb pointing: plasma diagnostics (Chromosphere -Corona), dynamics, photospheric magnetic field and flows.

SDO/AIA (HMI), Hinode, IRIS. More (on ground) TBD