

DKIST status and B data

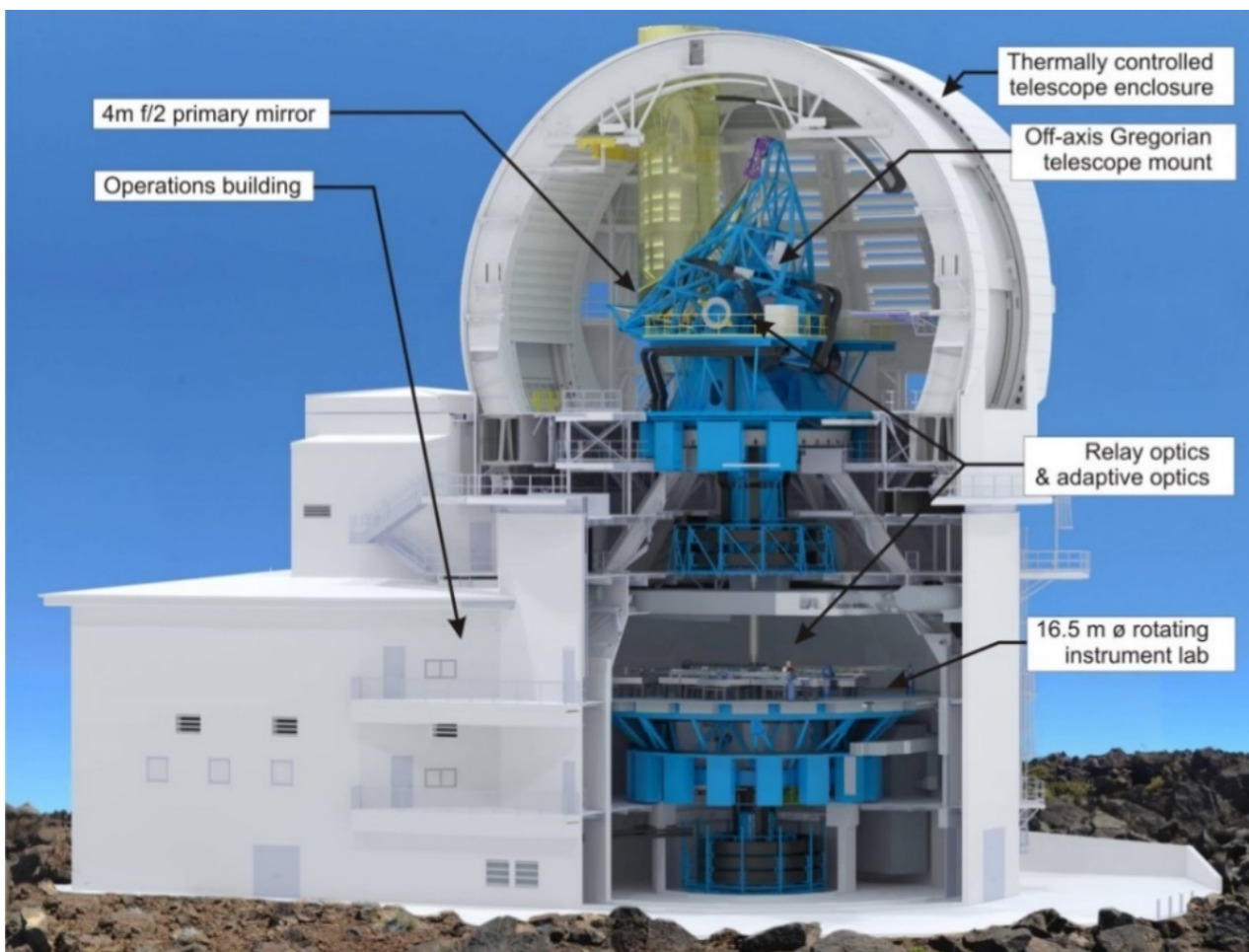
Maria D. Kazachenko

University of Colorado Boulder / National Solar
Observatory

ISSI October 3 2022



National Science Foundation's Daniel K. Inouye Solar Telescope (DKIST)



The 4m DKIST on Haleakalā/Maui: *world's largest, most powerful solar telescope!*

- Advanced solar *adaptive optics* to enable high resolution observations
- 5 instruments
- *Coronagraph* to help us understand the hot solar atmosphere
- 3 PB/year of data served fully calibrated to the community



2022: DKIST First Year of Science Observations (Commissioning Phase)

- Aug 2021 Aug 14: DKIST First Proposal Call (Operations Commissioning Phase, OCP-1):
 - 102 obs. proposals submitted (inc. 14 PhD thesis proposals);
 - 2022 Feb 23: first proposal observations with VISP and VBI;
 - Me/collaborators submitted 6 proposals:
 - 2 rejected;
 - 4 selected;
 - 1 executed; no data yet;

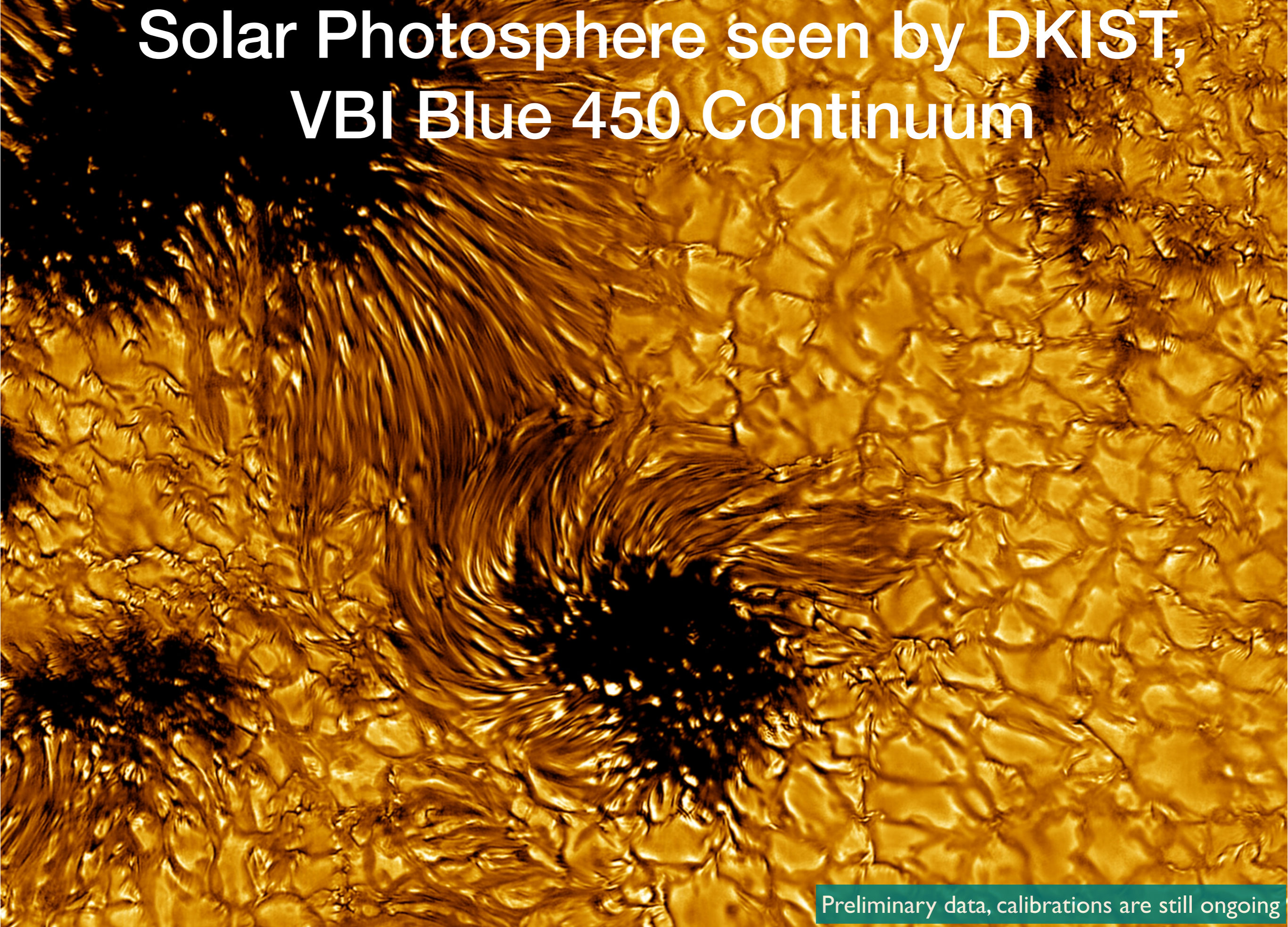


2022: DKIST First Year of Science Observations (Commissioning Phase)

- 2022 June 8: DKIST Second Proposal Call (first time with Cryo-NIRSP):
 - Proposal submission deadline: August 8, 2022;
 - My group submitted 7 proposals;
 - Proposal selection: Fall of 2022; Still ongoing.
 - Proposal execution window starts: Nov 2022 — Mar 2023
 - Proposal execution window ends: May 2023 — Sep 2023:
 - Couple of months to receive the data: **Aug—Dec 2023;**
 - **DKIST data becomes public to everyone 6 months after it gets to PI!**
 - Depending on the next ISSI meeting date we might be able or not to get chromospheric data (disk) and maybe some Cryo-NIRSP (corona)

Some Early Tidbits

Solar Photosphere seen by DKIST, VBI Blue 450 Continuum



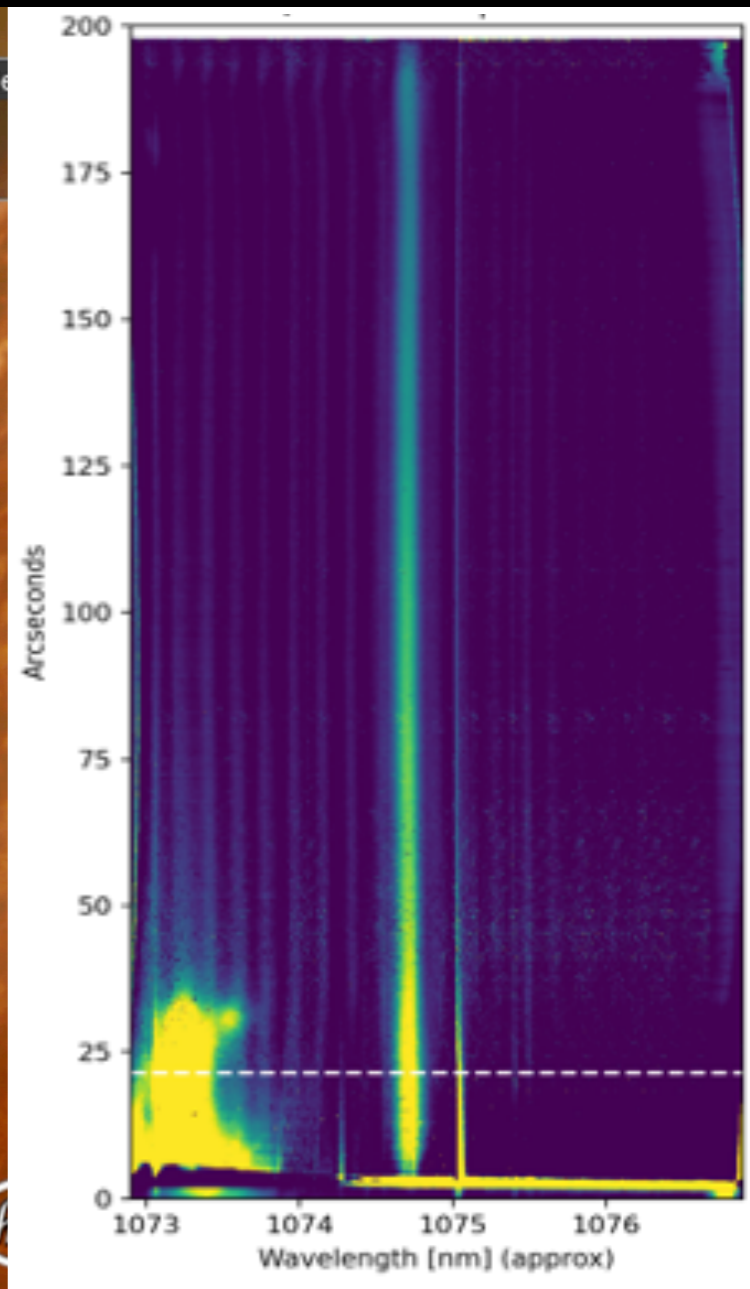
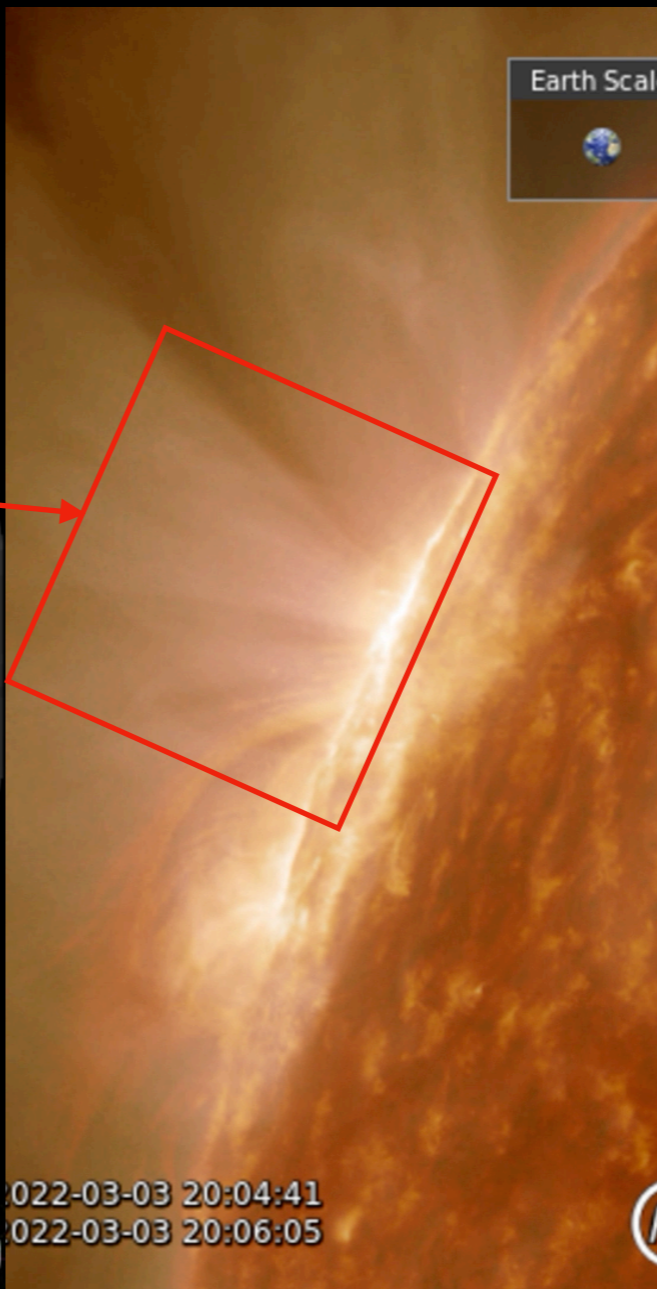
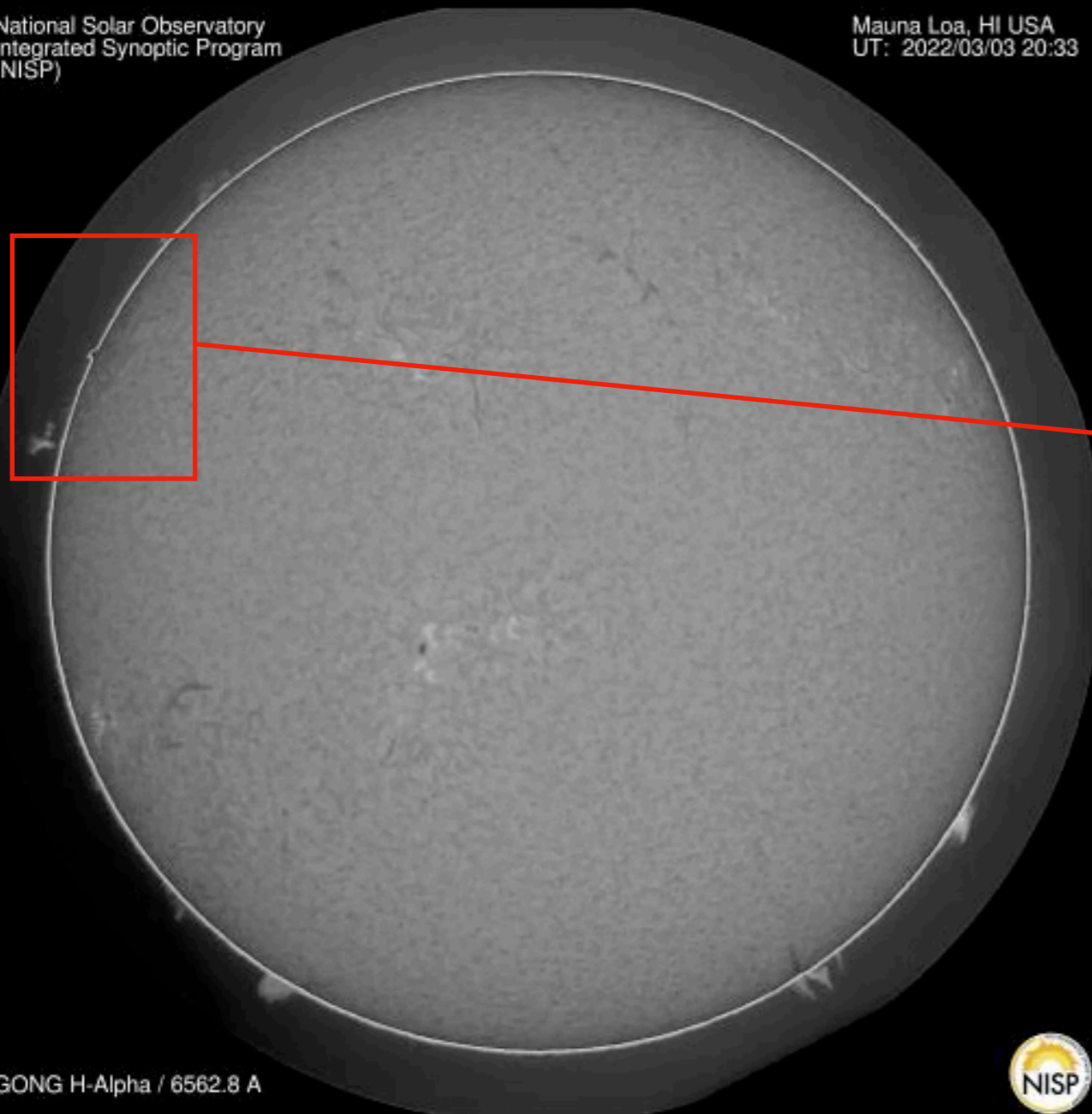
Preliminary data, calibrations are still ongoing



Confined Coronal Eruption observed by DKIST/ CryoNIRSP

National Solar Observatory
Integrated Synoptic Program
(NISP)

Mauna Loa, HI USA
UT: 2022/03/03 20:33



GONG H-Alpha,
Mauna Loa, HI

SDO/AIA 304 Å [He II]
and 193 Å [Fe XII – log T [K] 6.1]

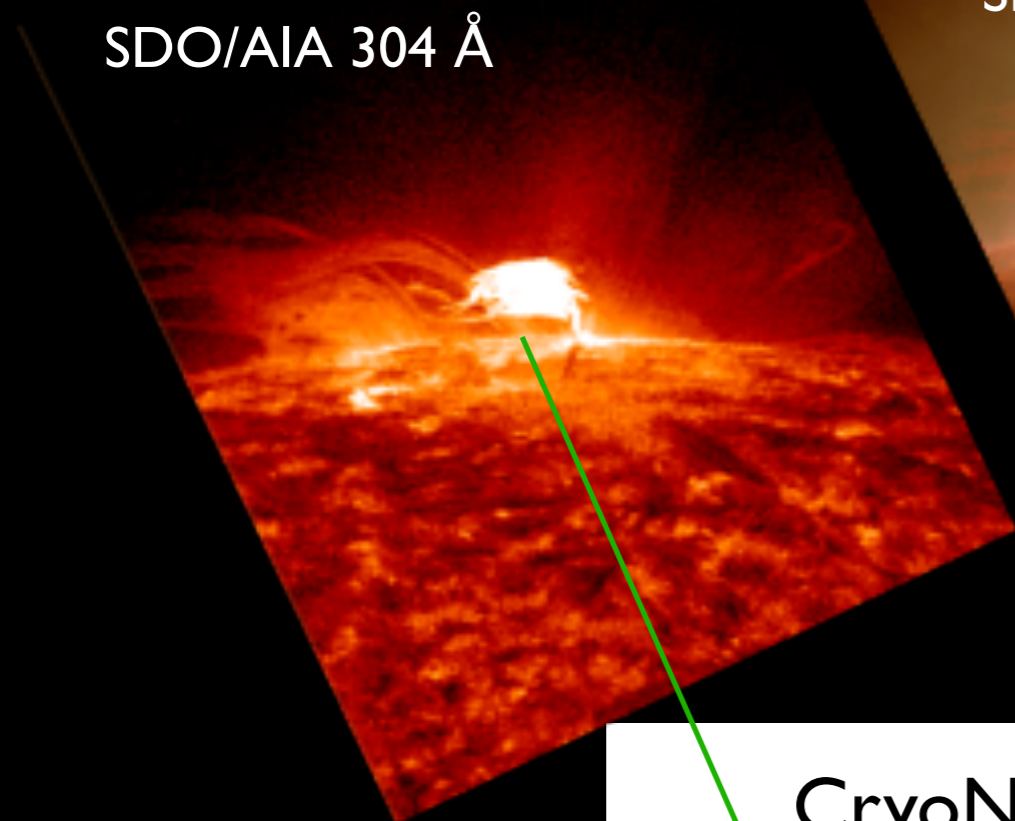
CryoNIRSP, Quick
Look spectrum

Preliminary data, calibrations are still ongoing

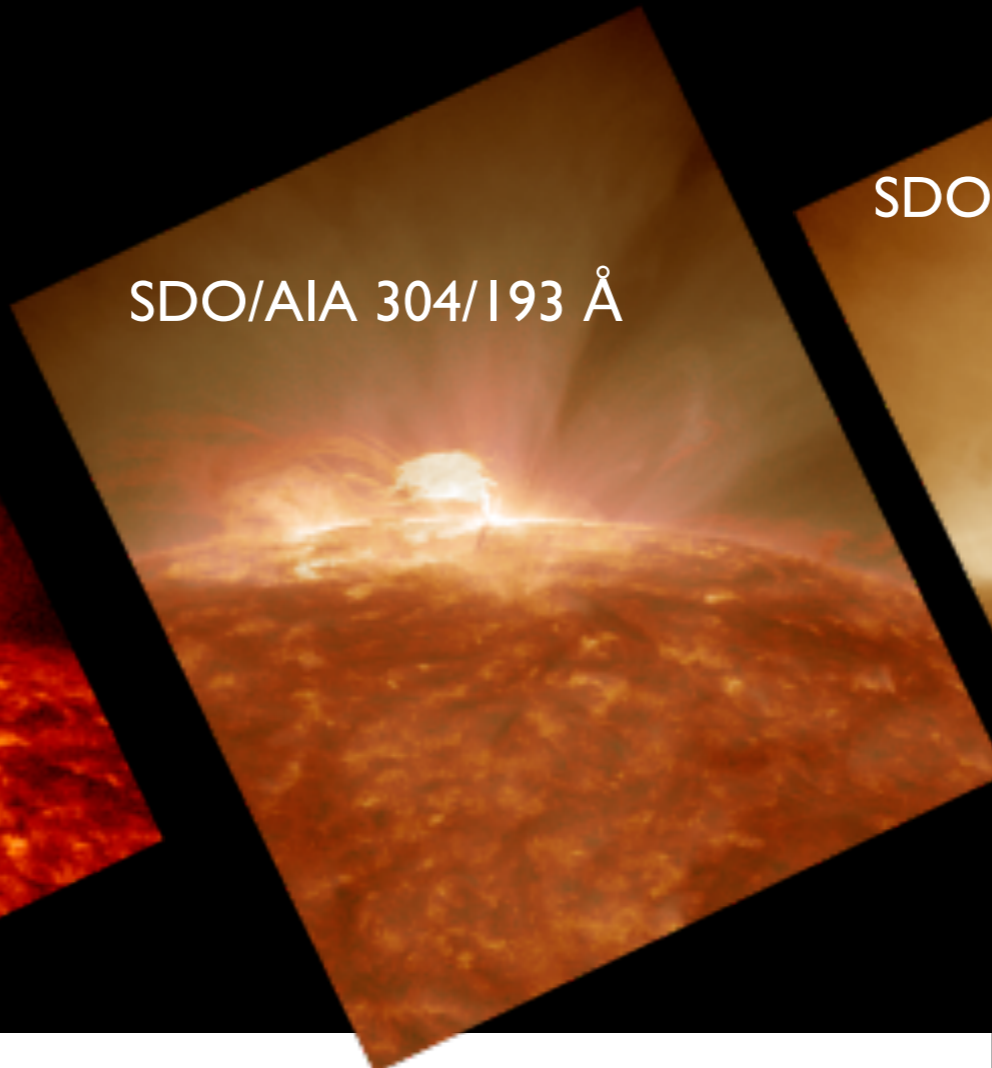


Confined Coronal Eruption observed by DKIST/ CryoNIRSP

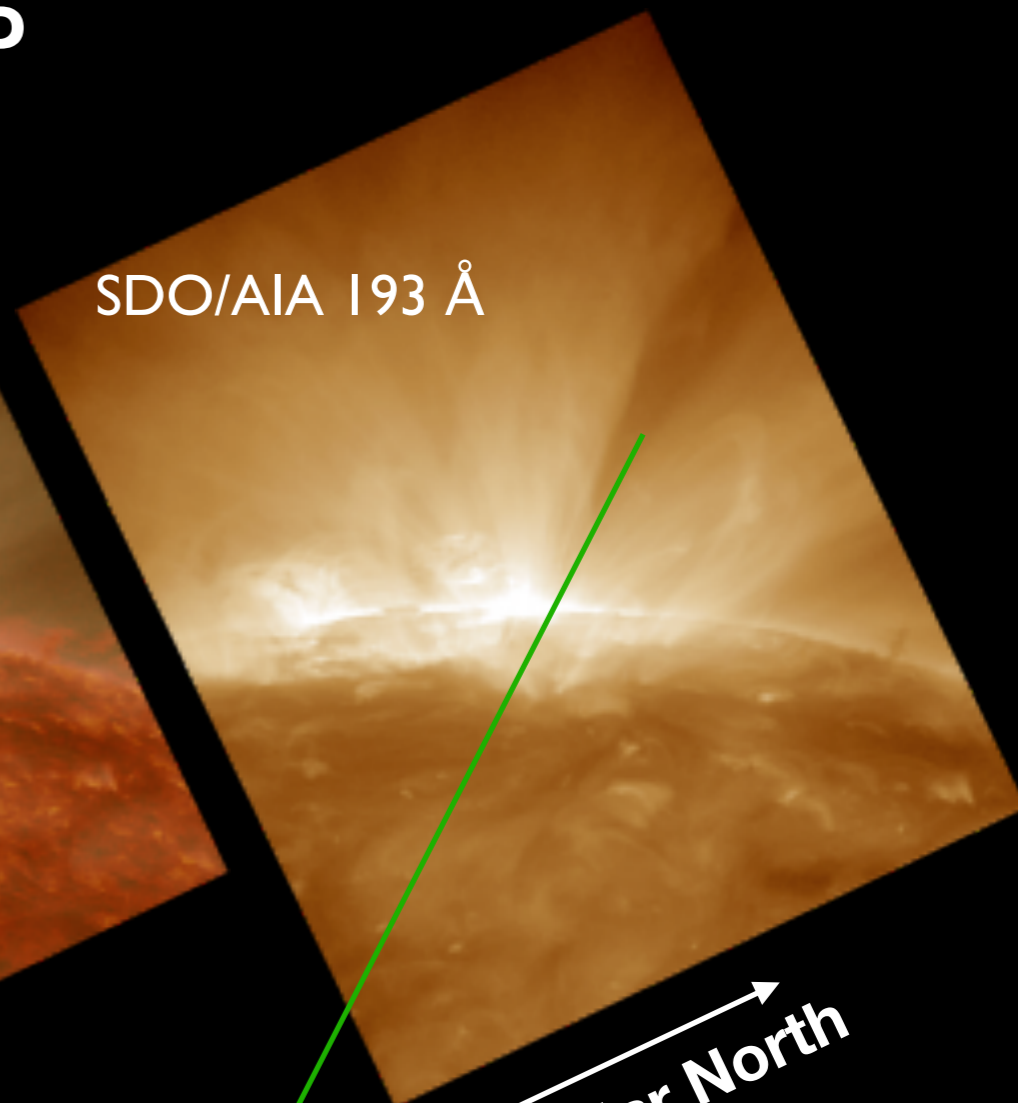
SDO/AIA 304 Å



SDO/AIA 304/193 Å

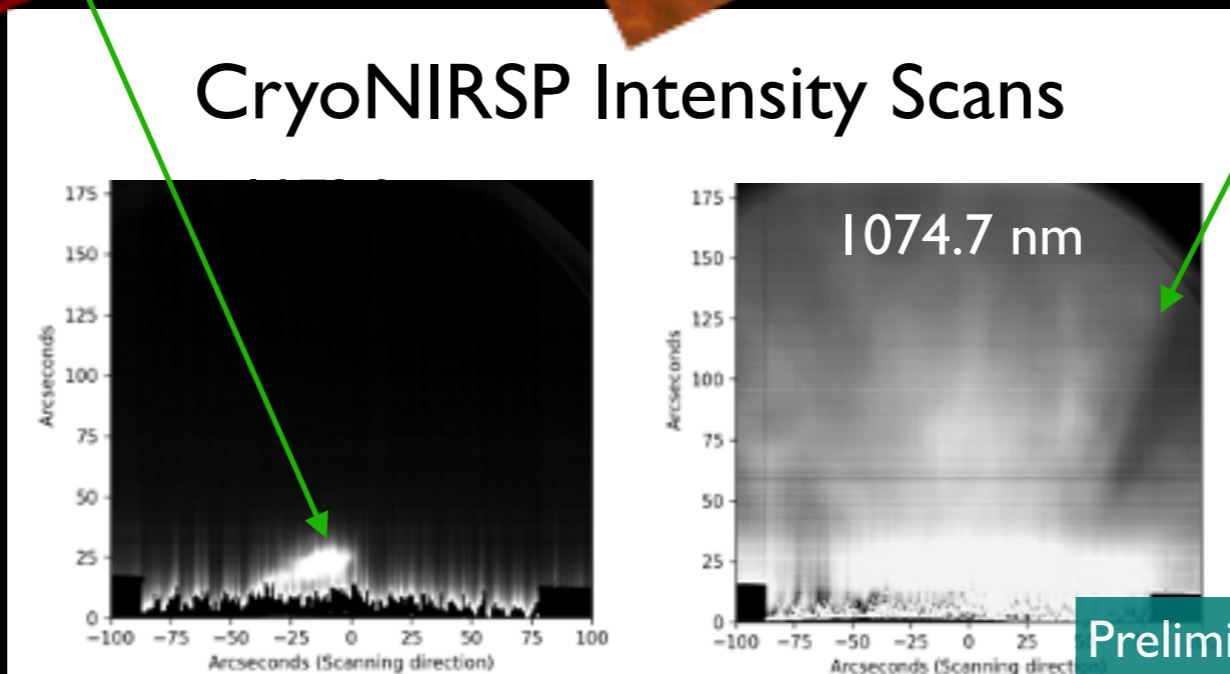


SDO/AIA 193 Å



Solar North

CryoNIRSP Intensity Scans



Preliminary data, calibrations are still ongoing