

# The new mobile Telescope at the CHARA array

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# Status at last year's CHARA meeting





# Telescope Installation 2024-03-19

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array



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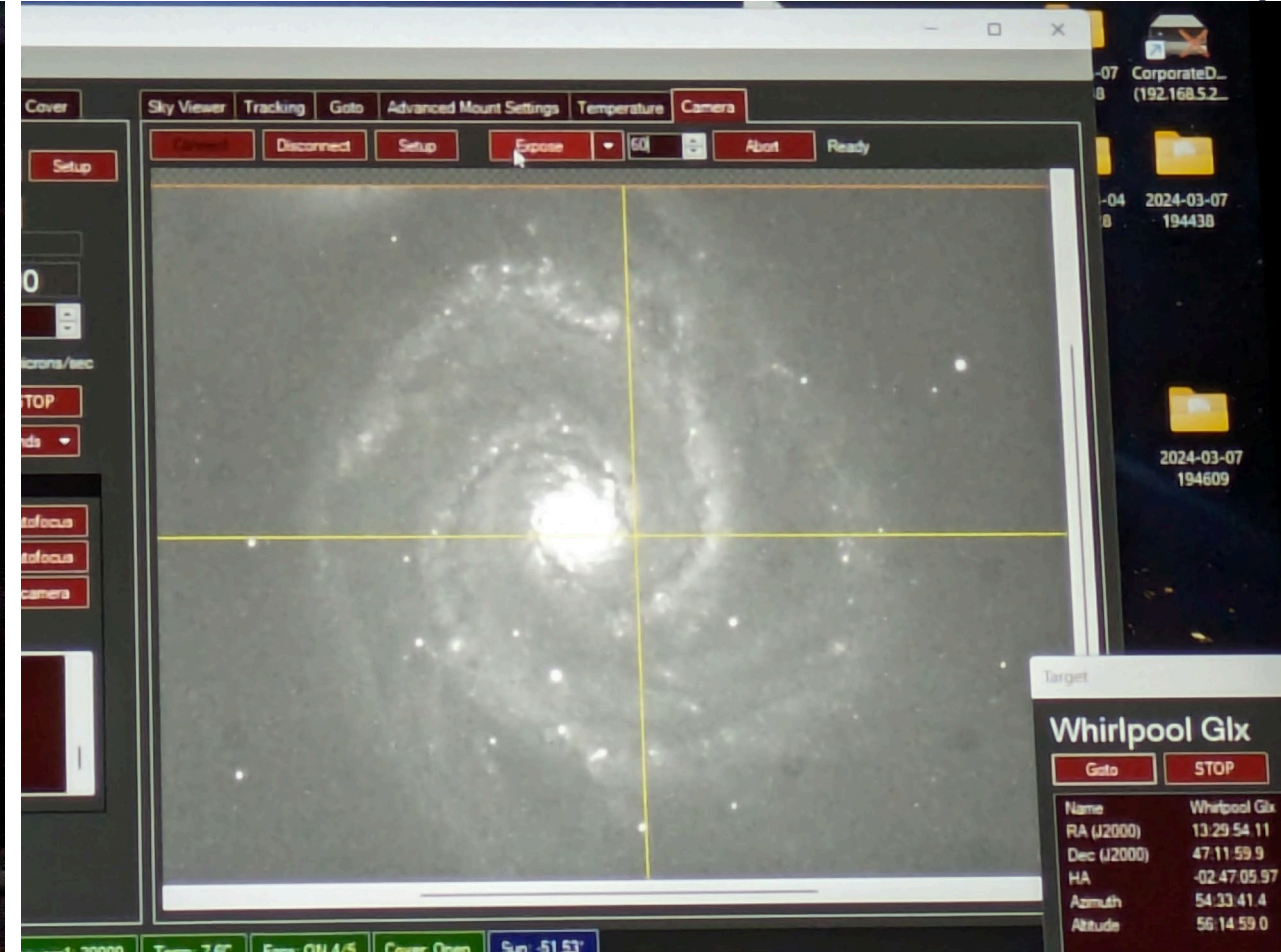
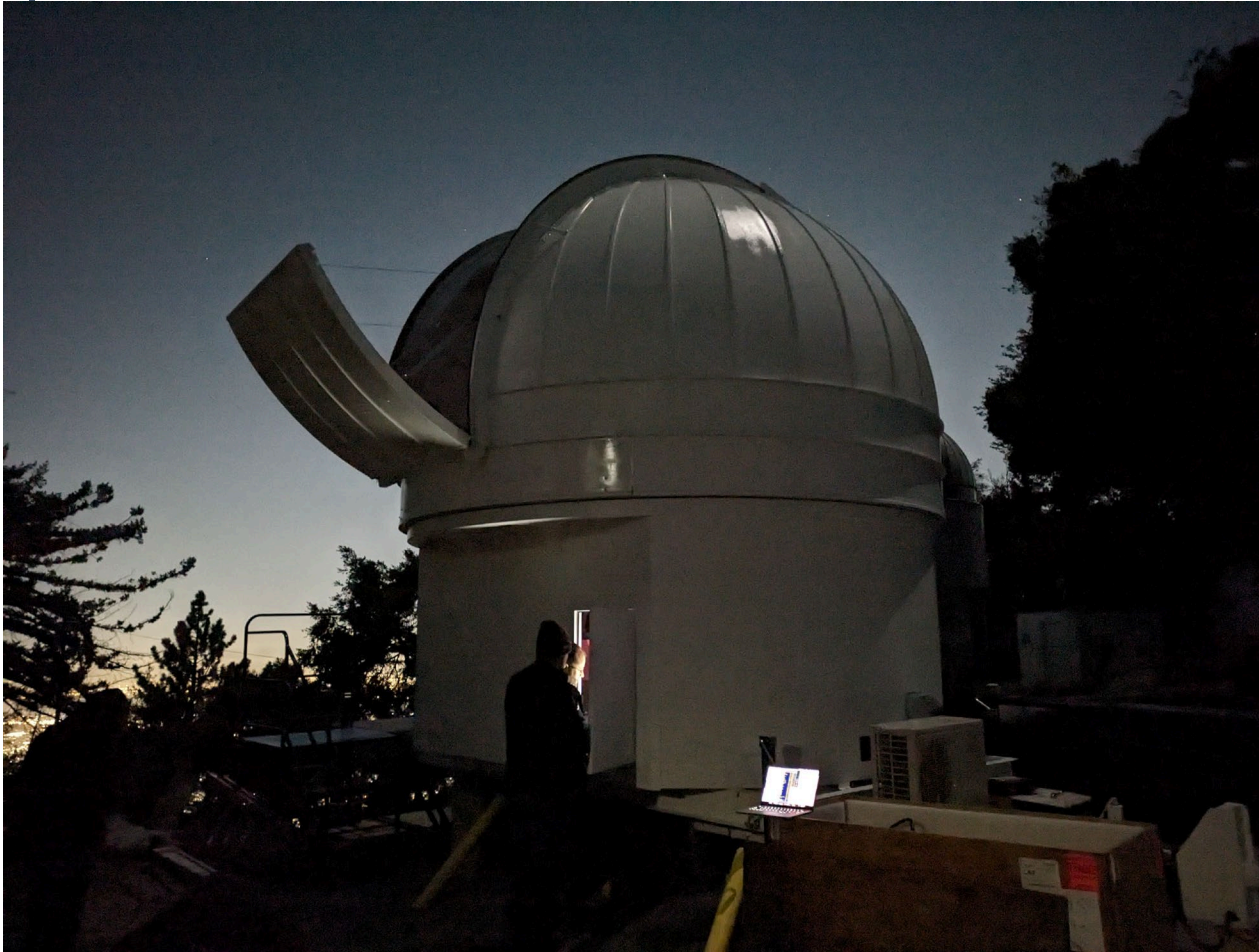


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# First light

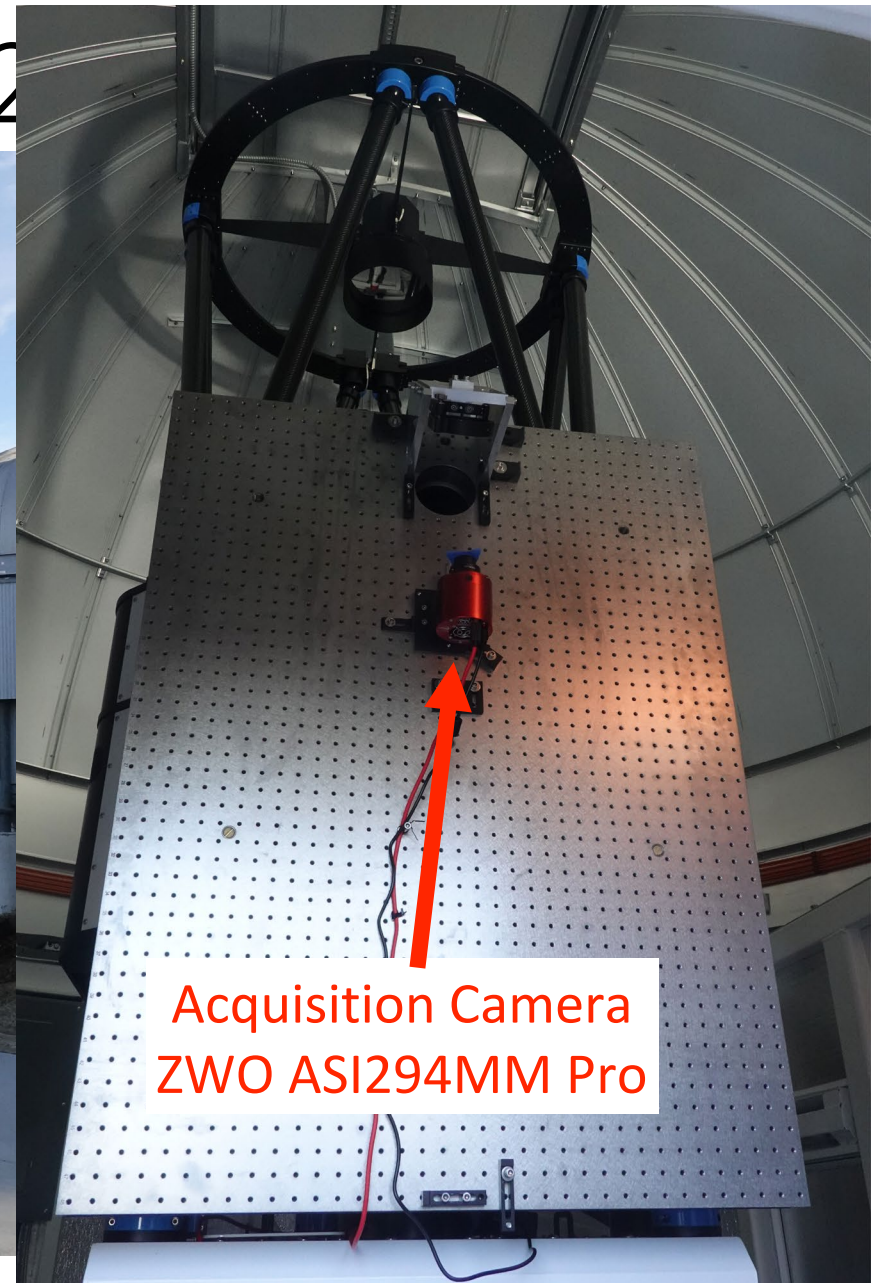
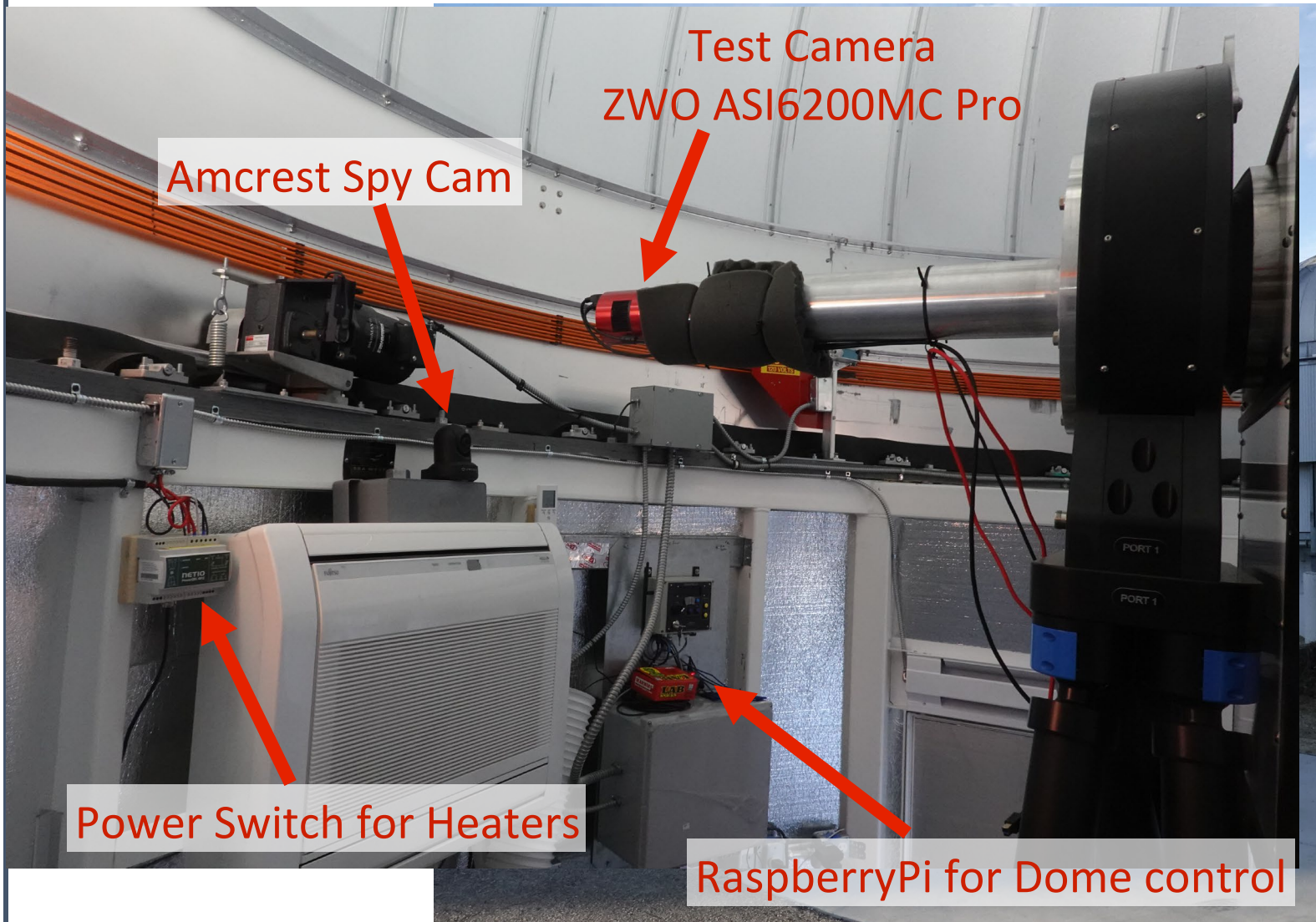


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# Status April 2025





# Telescopes do not like it cold







# Software

The collage displays several key software components for the CHARA array:

- Planewave Interface 4.1.4:** The main control window showing a star chart, a list of telescope parameters (e.g., RA, Dec, Azimuth, Altitude), and a status bar at the bottom indicating the state of various components like the mount, focus, and temperature.
- Planewave telescope:** A window for controlling the telescope's movement and focus. It includes fields for position, target, and focus, along with buttons for movement and focus control.
- Simbad data:** A window displaying astronomical data for the object NGC 4676, including coordinates, proper motion, and other relevant information.
- Dome CPR:** A window showing the status of the dome's position and rotation, including fields for azimuth and elevation.

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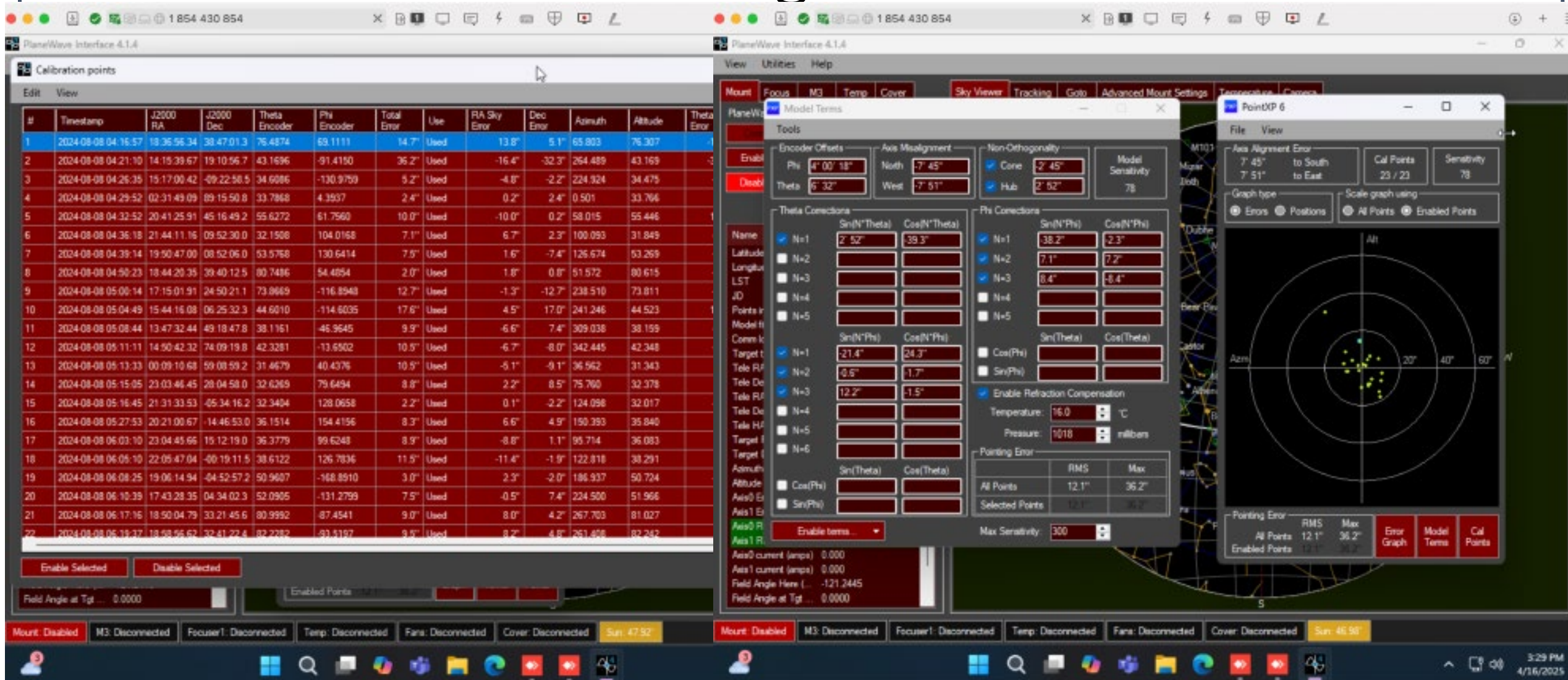
# Pointing Model

- Integrated in PlaneWave software
- Can work fully automatic:  
Point telescope, find stars, solve for pointing direction
- Not an option for us: FoV about 1 arcmin
- Do it manually:  
Point to bright star, center by hand, add point to model

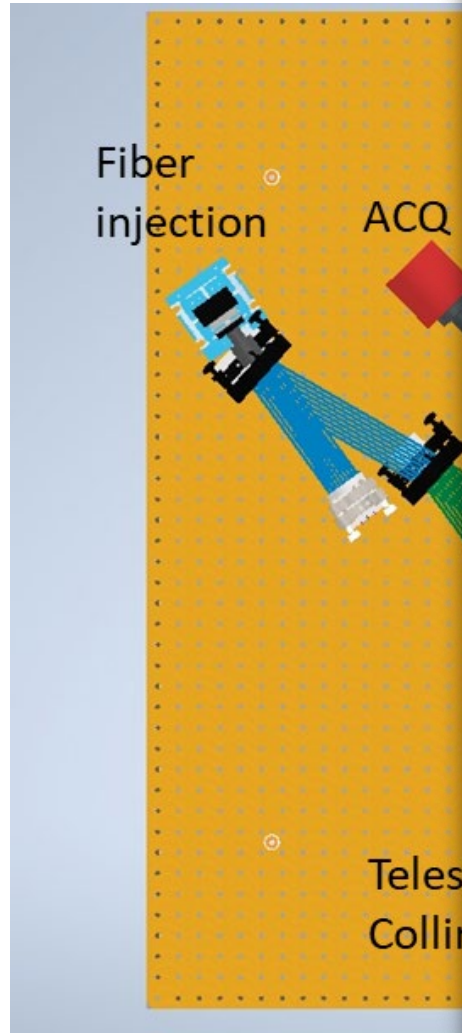




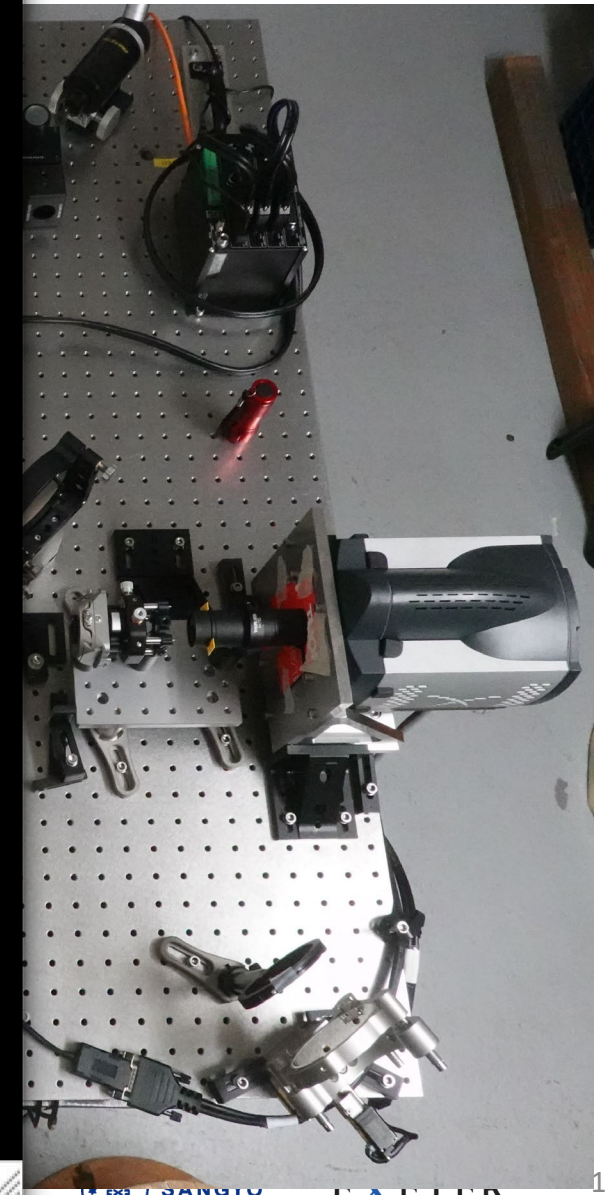
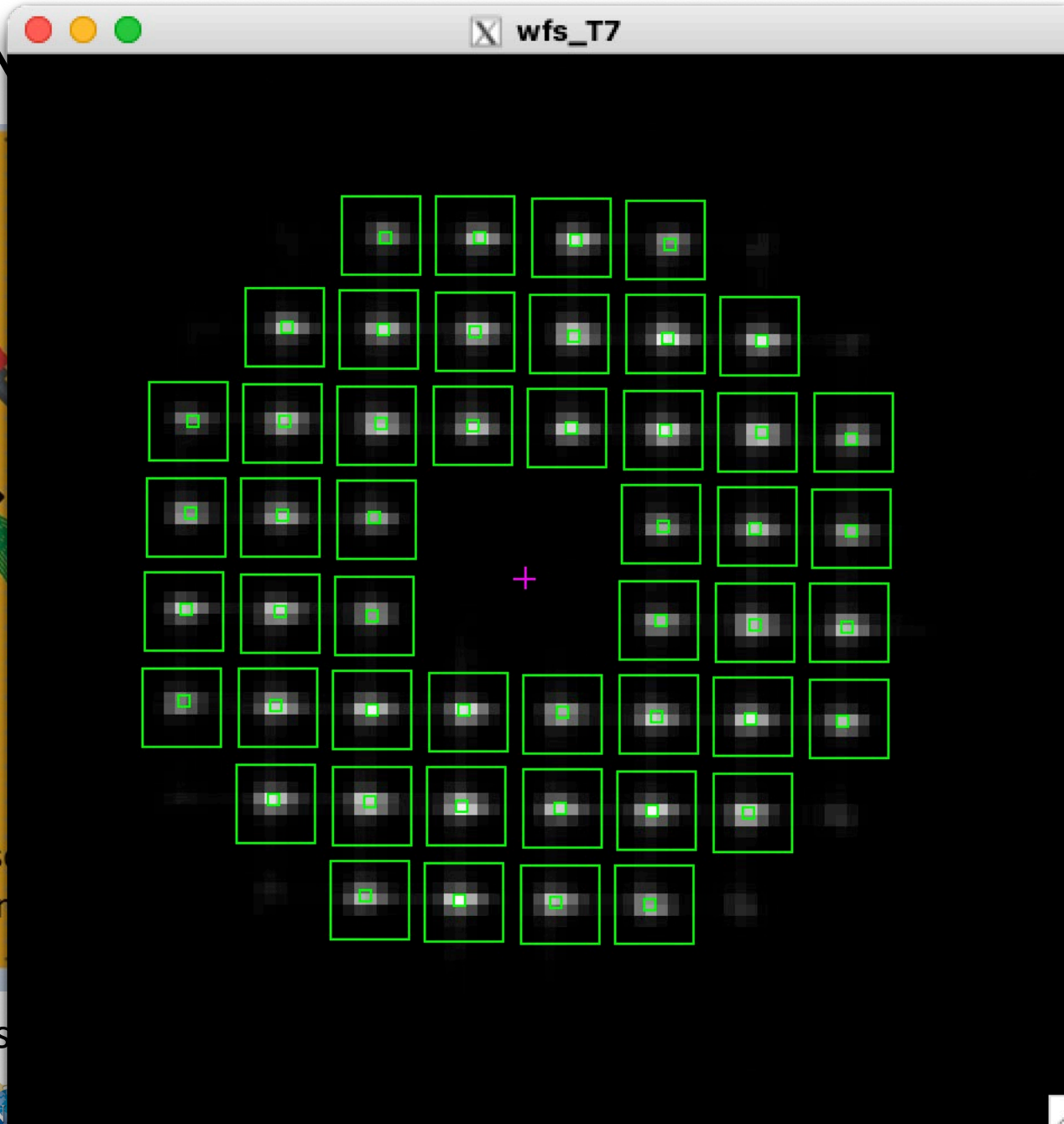
# Pointing Model







WFS path ins



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# Next Steps

- Connect DM
- Close AO loop
- Acquisition camera
- Mount NIB on telescope

# Results so far: pretty pictures



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