

Minutes of SHARK-NIR ComRun4 Pre-run Meeting

September 14, 2023

Attendees: Luca, Alessandro L., Daniele, Gabriele, Davide R., John, Fulvio, Glenn, Joe, Al, Brandon, Robert, Dave, Dino, Elena, Pat, Sam, Simone, Steve

1. Plans for the run:
 - a. Spectroscopy (which has not yet been exercised) will be the priority
 - i. Both low resolution (prism) and medium resolution (grism).
 - b. If time:
 - i. Continue commissioning coronagraphic masks.
 - ii. Dual band imaging (Wollaston prism).
 - c. Who, when, where
 - i. Six persons on the summit: Luca, Elena, Davide, Dino, Alessandro Lorenzetto, Federico Biondi.
 - ii. Bedrooms are tight, but all can be accommodated with two caveats:
 1. Both closets will be needed.
 2. Al will notify Christoph Saulder (LBTB) that he will need to stay at the Max Planck guest house or elsewhere until after the SN run.¹
2. LBT Readiness:
 - a. The cooldown went smoothly, and SN is at good temperature and vacuum.
 - b. The SX AdSec has been successfully installed and will be ready for the run.
 - c. Fourier mode:
 - i. The user-friendly command² is still under development and will not be available for the run.
 - ii. Fourier mode will not be needed during the first night but could be needed on either the second or third night.
3. Sharing with SV and LBTI
 - a. LBTI will share on the DX side during the first half of one of the three nights.
 - b. LBTI will provide the additional instrument support required for that half night.
 - c. The SV team have been kept in the loop on this plan.
 - d. SV will share during all of the remaining 2.5 nights.
 - e. The LBTI interface for issuing presets has been modified in a way that avoids the need for verbal communication with the OSA to coordinate shared presets.³
4. Preset/Offset issues:
 - a. Dave provided an overview of how presets and offsets can be performed with SN, which has a rotator, in coordination with the LBTI AO system, which does not co-rotate with SN.
 - b. We believe that using the AltAz frame for offsets will avoid any significant negative effects from field rotation for most observing modes.

¹ The LBTB run starts on Oct 5 (Oct 3 is the last SN night and Oct 4 is an ECD night).

² That would avoid the need for scheduling special AO support.

³ The same change may have been made in the SN preset software as well (TBC).

- c. The SN team will work directly with Dave and Jenny to test this proposed plan for offsets.
- 5. Future runs:
 - a. 25-30 October
 - i. Some science verification will be performed during the run.
 - ii. All nights will be shared with LBTI on the DX side.
 - iii. SV will also share on the DX side in parallel with LBTI, but only if the effort to co-align SV with LBTI (planned for later this month) is successful.
 - b. 19-Dec – 2-Jan; 4-Jan
 - i. The SN team plan to operate remotely from Italy.
 - ii. The potential for lower efficiency and/or a network outage were discussed.
 - iii. Further discussion will take place during the 3 months between now and the run.
- 6. Other:
 - a. The software UI meeting will take place after SN have updated the relevant documentation.
 - b. The GPS issue that requires an AO pause every 2048 seconds (aka, the "nudge" problem) has not yet been resolved.
 - c. Preliminary estimates from PEPSI show a factor of 1.5 to 2.0 improvement in reflectivity, depending on wavelength, following the recoating of SX M1 and M2.
 - d. Day tests with the ARGOS source will be requested for tomorrow, Friday, Sep 15.
- 7. Date and time of next meeting: Thursday, Oct 12, 0900 MST