LBT Observing Log for 2024 11 26 UT

Observers: Justin Rupert Partner Observer: Don Terndrup, Ilya Ilyin Telescope Operator: Josh Williams

Plan:

We'll start with PEPSI PFU. If conditions are suitable, we'll switch to LUCI during the second half of the night.

Summary:

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Overview (times are given in UT):
      OSU PETS
         TOI-1431 (UT01:50-04:08)
      UVa Multistar
          TIC 30711...(UT 04:08-04:14)
      OSU BHBinaries
          J0103+6656...(UT 04:14-04:21)
          J0219+5740...(UT 04:21-04:27)
          J0200+3940...(UT 04:27-04:34)
          J0215+5228...(UT 04:34-04:41)
          J0215+5228...(UT 04:41-04:57)
         J0238+6106...(UT 04:57-05:13)
          J0317+4339...(UT 05:13-05:40)
          J0412+4627...(UT 05:40-05:54)
          J0408+4847...(UT 05:54-06:06)
          J0430+5504...(UT 06:06-06:13)
          J0445+5727...(UT 06:13-06:20)
      OSU Clusters
          GDR3 24797...(UT 06:20-06:32)
          GDR3 43621...(UT 06:32-06:47)
          GDR3 24540...(UT 06:47-07:08)
      OSU XMD
          J0807+3414...(UT 07:25-09:00)
          IZw18SE (UT 09:00-09:17, 10:20-12:00)
          HIP32549 (UT 12:01-12:09)
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IZw18SE (UT 12:09-12:58)

Issues:

The LUCI scripts all used J filter for the spectroscopic science exposures. Had to manually switch to zJspec.

IT8931 - The LFBG rotator faulted a couple times

Weather:

Cloudy at sunset. We opened a little late to catch most of a transit. Fought through clouds to get data on bright PEPSI targets. Cleared nicely for the second half. Seeing was decent the first half and pretty good the second half.

Overview (times are given in UT):

23:40 Initializing LUCI1.

23:41 LUCI1 field stop alignment.

01:09 12-degree twilight.

01:30 We're opening. Clouds everywhere but they're thinnish.

01:36 Pointing check.

01:39 18-degree twilight.

01:40 Ilya pressed the wrong button so Josh lost the guider. He's resending the pointing preset.

01:47 Collimation check.

OSU_PETS

TOI-1431 (UT01:50-04:08)

01:50 Preset.

01:54 Starting science. Seeing is 1.3" on guider. Thinnish clouds still present.

02:02 SNR: 99 (blue), 125 (red). Goal is 200.

02:52 Seeing is 1" on guider. Transparency is the same.

03:25 Seeing is 0.8" on guider. We lost a mag ~15 minutes ago.

03:53 Seeing is 0.8" on guider. Got our mag back ~20 minutes ago.



UVa_Multistar

TIC 30711...(UT 04:08-04:14)

04:08 Preset.

04:10 Starting science. Seeing is 0.9" on guider. Bumped the exp time from 111s to 180s.

OSU_BHBinaries

J0103+6656...(UT 04:14-04:21)

04:14 Preset.

04:16 Starting science. Seeing is 0.8" on guider. Bumped exp time from 130s to 190s.

04:21 SNR was well above goal.

J0219+5740...(UT 04:21-04:27)

04:21 Preset.

04:23 Starting science. Seeing is 0.7" on guider. Bumped exp time from 130s to 190s.

J0200+3940...(UT 04:27-04:34) 04:27 Preset.

04:30 Starting science. Seeing is 0.8" on guider. Bumped exp time from 130s to 190s.

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J0215+5228...(UT 04:34-04:41)
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04:34 Preset.

04:36 Starting science. Seeing is 0.8" on guider. Bumped exp time from 130s to 250s.

04:38 Thicker clouds have moved in.

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J0215+5228...(UT 04:41-04:57)
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04:41 Preset.

04:45 Starting science. Seeing is 0.6" on guider. Bumped exp time from 260s to 620s.

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J0238+6106...(UT 04:57-05:13)
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04:57 Preset.

05:01 Starting science. Seeing is 0.6" on guider. Bumped exp time from 260s to 620s.

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J0317+4339...(UT 05:13-05:40)
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05:13 Preset.

05:23 Starting science. Seeing is 0.7" on guider. WFS struggled to measure the target, but eventually got there. Bumped exp time from 260s to 920s.

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J0412+4627...(UT 05:40-05:54)
05:40 Preset.
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05:45 Guide star was found, then lost while WFSing. Found it again but we may have to hang tight for a bit with these thick clouds.

05:47 Starting science. Seeing is 0.8" on guider. Bumped exp time from 260s to 920s.

05:48 Clouds are dissipating. We've picked up three mags.

05:54 Cut it off after 5 minutes thanks to the clearing skies. Hit the SNR goal.

J0408+4847...(UT 05:54-06:06)

05:54 Preset.

05:57 Guide star isn't on the hotspot, but the GCS is saying everything is ok. There's nothing on the fiber. Resending preset.

05:59 Same thing. There may be a very faint object that is landing on the hotspot (but our target is 8th mag and visible in the guide image). Pointing check.

06:02 Preset back to target. Got it.

06:03 Starting science. Seeing is 1" on DIMM (DIMM is here!), 0.7" on guider.

J0430+5504...(UT 06:06-06:13)

06:06 Preset.

06:08 Starting science. Seeing is 0.7" on guider.

J0445+5727...(UT 06:13-06:20)

06:13 Preset.

06:14 Starting science. Seeing is 0.6" on guider.

OSU_Clusters

GDR3 24797...(UT 06:20-06:32)

06:20 Preset. 06:21 Starting science. Seeing is 0.6" on guider.

GDR3 43621...(UT 06:32-06:47) 06:32 Preset.

06:34 Starting science. Seeing is 0.6" on guider.

GDR3 24540...(UT 06:47-07:08) 06:47 Preset. 06:49 Starting science. Seeing is 0.5" on guider.

07:08 Reconfiguring to LUCI1.

07:16 Pointing check.

07:21 Collimation check.

OSU_XMD

J0807+3414...(UT 07:25-09:00)

07:25 Preset.

07:38 Starting science. Seeing is 1.2" on DIMM and guider. It was tough to see the object in the subtracted field image and subtracted through-slit image. The first subtracted spectrum will tell.

07:52 Spectrum seems to be shifted. Moved the grating motor +10 and took a short exposure.

07:54 Spectrum looks the same. Looking at the execution panel I now see the J filter is in, not the zJspec.



07:56 Manually putting that filter in and starting the spectroscopy again. Good news is we can see emission features, so we've got the target.



08:07 That's better.

08:21 Seeing si 1.2" on DIMM, 0.8" on guider.

IZw18SE (UT 09:00-09:17, 10:20-12:00)

09:00 Preset. Looks like this script has the J filter for spectroscopy as well.

09:12 Starting science. And we lost the preset immediately. There's a fault on the left rotator. Josh says it looks like a brief communication glitch. Have to resend the preset.

09:13 Resending preset.

09:17 Lost the preset again in the middle of the source image of the acquisition script. We're away from the wind at 49 EL, PA 0. Josh is investigating the logs.

09:22 Now the rotator isn't turning on for Josh.

09:45 Josh attempted some troubleshooting to no avail. Going to wake up Bryan.

10:02 Bryan is now going to check out the rotator.

10:15 Bryan went onto the telescope. He reset the rotator lockout key and powered it up from there. It turned on and was moveable after that. This has been added to IT8931.

10:20 Re-resending preset.

10:33 Starting science. Seeing is 1.3" on DIMM, 0.8" on guider.

10:45 I am now doubting that we are on the correct target. I now see in the execution panel that two offsets were made during the alignment. There is a brighter extended object next to our target which may have fallen into the slit after the second offset. Going to reacquire to be sure.

10:47 Re-re-resending preset.

10:57 Starting science. Seeing is 1.2" on DIMM, 0.7" on guider.

HIP32549 (UT 12:01-12:09)

12:01 Preset. Again, this script has the J filter for the spectroscopy exposures.

12:07 Starting science.

12:09 Seeing is 0.8" on DIMM, 0.7" on guider.

IZw18SE (UT 12:09-12:58)

12:09 Preset. There weren't any other suitable targets that could be completed before twilight (east-pointing restrictions), so we'll grab some more spectra of this one to finish the night.

12:22 Starting science. Seeing is 1.2" on DIMM, 0.7" on guider.

12:32 18-degree twilight.

12:58 Stopping after three to prepare for twilight flats.

13:00 Preset to Blank06+42

13:02 12-degree twilight

13:58 Closing.

14:03 Starting PEPSI cals.

PEPSI Log:

https://drive.google.com/file/d/1bGiN9ZxZbjWxfWM8rR7mm_Den0vujGWB/view?usp=sharing

