# Jan 25 UT 2022 Night notes.

### Overview:

Observer: Olga Kuhn (LBTO); Lead: Mark Whittle (UVa)

Other Partner Observers: Charlotte Wood (ND) Telescope Operator: Josh Williams (LBTO)

Clear night; seeing good; moon rises near midnight local time.

Emphasize OSU targets since they are behind ~18 hours.

Object distribution not ideal – sparse early (galaxy overhead!).

Start with MODS ASASSN until the PEPSI targets are available.

Then switch to PEPSI and aim to complete OSU-BH-Binaries, and do as many OSU-LowAbundZ as possible.

## Objects completed (all times UT):

## **MODS**

g191b2b Standard.

OSU: ASASSN J0623 (~40 min; set PA to 112 for parallactic angle for mid-exposure)

OSU: ASASSN 19dj (~2.5 hr)

#### **PEPSI**

OSU: BH-Binary J0757

OSU: BH-Binary J0933

OSU: LowAbund J1021+29

OSU: LowAbund J1048+17

OSU: LowAbund J1057+15

OSU: LowAbund USNO 1200.

OSU: LowAbund UCAC 473

OSU: LowAbund J1125+0145

OSU: LowAbund J1127-0133

OSU: LowAbund J1137+0158

OSU: LowAbund J1145+003

OSU: LowAbund J1150+0207

OSU: LowAbund J1217-0154

OSU: LowAbund J1351+400

OSU: LowAbund J1409+4512

OSU: LowAbund J1419+3634

OSU: LowAbund J1420+3935

OSU: LowAbund J1509+3935

OSU: LowAbund J1513+3558

OSU: LowAbund J1514+3300

OSU: LowAbund J1408+2706

OSU: LowAbund J1422+1643

# **Observing Log:**

00:50 Sunset

01:12 Collimating. Problems on right side.

01:40 still trying to collimate. Panic on DX side. Reset.

01:53 finally collimating. Seeing about 1.0

01:57 Acquire MODS standard g191b2b

02:10 start g191b2b.5 arcsec slit.

02:25 done

02:25 slew to ASASSN-J062307 (change PA to 112); changed .acq to shorter exposure since star is expected to be bright.

02:32 acquire is good – field matches rotated finder; Clear skies;

02:41 start. Seeing 0.8 (SX) 0.96 (DX)

03:07 finish

03:07 acquire ASASSN 19di (old 2019-TDE in galaxy center).

03:25 start science. 6 x 1200 seconds. Seeing ~ 0.85. Weak [OIII] and Ha+[NII] across galaxy.

05:39 end science. Seeing 0.6.

Change to PEPSI

05:39 slew to zenith

05:52 Operator's computer froze, unclear why.

Start OSU BH Binaries.

06:09 started collimation.

06:12 slew to BH-Binary J0757+43.

06:15 started exposure; seeing 0.5 arcsec!

06:36 slew BH binary: J0933+34.

06:38 start exposure (20 min). Conditions excellent. Seeing 0.6 arcsec.

Start on OSU-LowAbundZ

Almost all have  $S/N \sim 180$  red and  $\sim 85$ -90 blue. Considered adequate (target  $\sim 100$ ; conditions excellent).

06:59 slew to 2MJ1021+29

07:02 start exposure (15 min): 2MJ1048+1751

07:19 start J1048+175 (S/N 82 on blue; 200 on red).

07:35 2MJ1057+1559

07:40 seeing on guiders is  $\sim$ 0.6 arcsec. 08:02 USNO 1200. 08:23 J1151+1732 08:42 UCAC 473-04 08:58 pointing check 09:03 J1125+0145 09:22 J1127-0133 09:40 J1137+0158 09:58 J1145+003 10:17 J1150+0207 10:39 J1217-0154 10:59 J1351+400 11:17 J1409+4512 11:36 J1419+3634 11:56 J1420+3935 12:17 J1509+3935 Seeing beginning to increase (~1.3); as predicted by Alta. 12:28 J1513+3558 12:46 J1514+3300 13:07 J1408+2706 13:20 J1422+1643 (brighter, so only 10-minute exposure). Data fine despite twilight.

13:22 12-degree twilight. Finish.