

**Author:** Andrea Rossi<sup>1</sup>, Felice Cusano<sup>1</sup>, Ester Marini<sup>2</sup>, Simona Paiano<sup>2</sup>

**Affiliation:**

1. INAF- Istituto Nazionale di Astrofisica - Osservatorio di Astrofisica e Scienza dello Spazio Bologna, via Gobetti 93/3 40129 Bologna - ITALY
2. INAF, Osservatorio Astronomico di Roma, Via Frascati 33, 00077 Monte Porzio Catone, Italy
3. INAF, Osservatorio astronomico di Palermo, Piazza del Parlamento, 1, 90134 Palermo, Italy

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Abstract: This document presents the Annual Observing Report for 2024, compiled by the LBT Italia team on behalf of the Istituto Nazionale di Astrofisica (INAF). The report provides a detailed and comprehensive summary of the *queue observing* activities executed at the Large Binocular Telescope (LBT) during the designated period. In alignment with the astronomical observing cycle, the period covered specifically includes the closing phase of the 2023–2024 observing period and the initial observing sessions of the following period. This record documents the utilization of the available focal plane instruments, including MODS1 and MODS2, PEPSI, both LUCI1 and LUCI2, LBC Blue and Red, and SHARK (VIS and NIR). For each night of observation, data pertaining to the completed scientific programs were logged, providing crucial metrics such as effective observing time and percentages of time lost due to technical issues or adverse weather conditions. The analysis presented here is essential for evaluating the overall efficiency of the telescope's usage by the INAF community.

## INAF queue observing, 2024 January 02 - January 03

Observer: Ester Marini, Simona Paiano

Support: Andrew Cardwell

Telescope operator : Riccardo Ansaldi

Instrument: PEPSI

### Summary

These observations have been performed by Andrew Cardwell with the support of LBT-Italia-obs remotely.

At sunset the sky is clear, but there is ice and snow on the dx shutter door, we can use SX only tonight. We also have pointing restrictions due to wind. The allSky camera is currently down and it was not possible to recover it for tonight. We open at 01:03 UT, but we close again for bad weather at 02:30UT and we re-open at 03:51UT.

Night duration (12 degree - twilight) 01:22 - 13:24 UT = \* 12h\* \* 02m\*

Observing time: 6 h 32 min (54%)\*  
 Weather time loss: 5 h 00 min (42%)\*  
 Technical time loss: 0 h 30 min (4%)\*  
 Shark-VIS time loss: 0 h 00 min (0%)\*

## Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_to t	Notes
Bragaglia	Gaia DR3 345121753902697676 8	PEPSI MONO	D300/CDIII-C DV	12mins	S/N=109 on CD3 and 214 on CD5, exp time increased due to bad weather
Bragaglia	Gaia DR3 345118204541780121 6	PEPSI MONO	D300/CDIII-C DV	12mins	S/N=105 on CD3 and 200 on CD5, exp time increased due to bad weather
Bragaglia	Gaia DR3 345118132386332480 0	PEPSI MONO	D300/CDIII-C DV	15mins	S/N=150 on CD3 and 270 on CD5, exp time increased due to bad weather
Bragaglia	Gaia DR3 345120197406597440 0	PEPSI MONO	D300/CDIII-C DV	16mins	S/N=124 on CD3 and 213 on CD5, exp time increased due to bad weather

Bragaglia	Gaia DR3 345120471854672678 4	PEPSI MONO	D300/CDIII-C DV	16mins	S/N=152 on CD3 and 193 on CD5, exp time increased due to bad weather
Bragaglia	Gaia DR3 345120688750854118 4	PEPSI MONO	D300/CDIII-C DV	25mins	S/N=99 on CD3 and 142 on CD5, exp time increased due to bad weather
Bragaglia	Gaia DR3 345117551276714508 8	PEPSI MONO	D300/CDIII-C DV	15mins	exp time increased due to bad weather
Pino	55 cnc	PEPSI MONO	D300/CDI-CD IV		The observation s started about 20 mins before the start of the transit.
Bellazzini	Gaia DR3 376158702847625382 4	PEPSI MONO	D300/CDIII-C DVI	30 mins	S/N=78 on CD3 and 114 on CD6

Detailed log at this link:

<https://drive.google.com/file/d/1Bds7fr6uGa23ELcL3kG2IoxAdZB1M76j/view?usp=sharing>

Further details in the Log by Andrew Cardwell at this link:

<https://drive.google.com/file/d/1nH5aUsTjmixvns4Zk13NMt1FiLLf4iQS/view?usp=sharing>

Summary of LUCI calib files:

<https://drive.google.com/file/d/1vjo72elc7-0uO4t0OHK6LjsLcfQUq0XH/view?usp=sharing>

-- [AndreaRossi](#) - 05 Jan 2024

## INAF queue observing, 2024 January 05 - January 06

Observer: Andrea Rossi, Ester Marini

Support: Alexander Becker

Telescope operator : Ricardo Ansal di

Instrument: LBC

## Summary

These observations have been performed by Alexander Becker with the support of LBT-Italia-obs remotely. At sunset the building is covered with snow and ice. **We stay closed tonight!**

Night duration (12 degree - twilight) 01:22 - 13:24 UT = \* 12h\* \* 02m\*

Observing time: h min (0%)\*

Weather time loss: 12 h min (100%)\*

Technical time loss: h min (0%)\*

Shark-VIS time loss: h min (0%)\*

## Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
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Detailed log at this link:

<https://drive.google.com/file/d/1JOq0xSnMAzCiAINffvOxzbeXYCvS4Kd6/view?usp=sharing>

Further details in the Log by A. Becker at this link:

[https://drive.google.com/file/d/1N11ej93UI53F-JtZVySdPL\\_xAyBKRMoY/view?usp=sharing](https://drive.google.com/file/d/1N11ej93UI53F-JtZVySdPL_xAyBKRMoY/view?usp=sharing)

Summary of LUCI calib files:

<https://drive.google.com/file/d/1eIMlJmMeyiSeqdqLENwDTVMA6Pt8aFma/view?usp=sharing>

## INAF queue observing, 2024 January 06 - January 07

Observer: Felice Cusano, Simona Paiano

Support: Alexander Becker

Telescope operator : Ricardo Ansaldi

Instrument: LUCI BINO

## Summary

These observations have been performed by Alexander Backer with the support of LBT-Italia-obs remotely.

At sunset the sky is clear, but from the satellite we can see a big storm approaching from the north west. We closed one hour after sunset, too many clouds, the storm has arrived at about 01:20 UT.

Night duration (12 degree - twilight) 01:22 - 13:24 UT = \* 12h\* \* 02m\*

Observing time: h min (0%)\*

Weather time loss: 12 h min (100%)\*

Technical time loss: h min (0%)\*

Shark-VIS time loss: h min (0%)\*

## Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
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Detailed log at this link:

-- [EsterMarini](#) - 08 Jan 2024

## INAF queue observing, 2024 January 07 - January 08

Observer: Ester Marini, Simona Paiano

Support: Alexander Becker

Telescope operator : John Hill  
Instrument: LUCI BINO

## Summary

These observations have been performed by Alexander Backer with the support of LBT-Italia-obs remotely.

Winterstorm at sunset. Snow during the afternoon/evening, we don't have readings from the rear wind sensor, humidity > 90%, temperature -11.5°C.

Night duration (12 degree - twilight) 01:22 - 13:24 UT = \* 12h\* \* 02m\*

Observing time: h min (0%)\*

Weather time loss: 12h 5min (100%)\*

Technical time loss: h min (0%)\*

Shark-VIS time loss: h min (0%)\*

## Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
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Detailed log at this link:

<https://drive.google.com/file/d/1hvNayXNFWdSYyzWlz8kK5wBA-ZBxOnY/view?usp=sharing>

## INAF queue observing, 2024 January 08 - January 09

Observer: Felice Cusano, Andrea Rossi

Support: Justin Rupert

Telescope operator : John Hill

Instrument: LUCI

## Summary

These observations have been performed by Justin Rupert with the support of LBT-Italia-obs remotely.

At sunset the sky is clear, we can open. Humidity is 86%, wind 14 m/s. We try to open. Outside temperature is -15°C, we can not operate AO.

Seeing variable between 1.5 and 3.5" at the beginning of the night.

Night duration (12 degree - twilight) 01:22 - 13:24 UT = \* 12h\* \* 02m\*

Observing time: 10h 20min (87%)\*

Weather time loss: 0h 20min (2%)\*

Technical time loss: 0h 80min (11%)\*

Shark-VIS time loss: 0h 0min (0%)\*

## Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Giannini	HD23604 4	LUCI-BIN O	zjSpec, HKspec		telluric for Gaia21csu

Giannini	Gaia21cs u	LUCI-BIN O	zjSpec, HKspec	1h+1h/0.5h+0.5h	x2 for bad seeing, 2-3" <b>completed</b>
Giannini	HIP3156 7	LUCI-BIN O	zjSpec, HKspec		telluric for Gaia22dbd
Giannini	Gaia22d bd	LUCI-BIN O	zjSpec, HKspec	0.5h+0.5h/0.5h+0.5h	<b>completed</b>
Giannini	HD22859	LUCI-BIN O	zjSpec, HKspec		telluric for Gaia22agc
Giannini	Gaia22a gc	LUCI-BIN O	zjSpec, HKspec	0.25h+0.25h/0.25h+0. 25h	<b>completed</b>
Giannini	Gaia22a gc	LUCI-BIN O	imaging JHKs	0.1h+0.1h+0.1h	bad seeing maybe useless
Giannini	HIP3156 7	LUCI-BIN O	zjSpec, HKspec		telluric for Gaia21ebu
Giannini	Gaia21e bu	LUCI-BIN O	zjSpec, HKspec	0.25h+0.25h/0.25h+0. 25h	seeing ~1.3" <b>completed</b>
Giannini	HIP2450 8	LUCI-BIN O	zjSpec, HKspec		telluric for Gaia23bri
Giannini	Gaia23br i	LUCI-BIN O	zjSpec, HKspec	0.5h+0.5h/0.5h+0.5h	low S/N, bad seeing. luci1.*152 and luci2.*159 bad. Done twice <b>completed</b>
Saccheo	FS126	LUCI-BIN O	zH		standard. Shows some elongation even after recollimation. Took twice. OK?
Saccheo	J1007	LUCI-BIN O	JHK	0.15h+0.15h+0.15h	<b>completed</b>
Piconcelli	HD10530 8	LUCI-BIN O	KG210		telluric
Piconcelli	J120210	LUCI-BIN O	KG210	0.5h+0.5h	done twice <b>completed</b>

Piconcelli	HD10530 8	LUCI-BIN O	KG210		telluric
Piconcelli	J122803	LUCI-BIN O	KG210	0.5h+0.5h	done twice <b>completed</b>
Calibrations		MODS-BI NO			

Detailed log at this link:

[https://drive.google.com/file/d/1e8OebfBMB8xIhmUp\\_YgPFvLvJZO0oE4Y/view?usp=sharing](https://drive.google.com/file/d/1e8OebfBMB8xIhmUp_YgPFvLvJZO0oE4Y/view?usp=sharing)

Further details in the Log by Justin Rupert at this link:

[https://drive.google.com/file/d/1\\_zlbQntr767uabqaJ7Ndzn0Xuqtm87cO/view?usp=sharing](https://drive.google.com/file/d/1_zlbQntr767uabqaJ7Ndzn0Xuqtm87cO/view?usp=sharing)

Summary of LUCI science files:

<https://drive.google.com/file/d/17y0qtxGrBUsAvEcKi9OBM0BDg-S-sRyY/view?usp=sharing>

-- [AndreaRossi](#) - 10 Jan 2024

## INAF queue observing, 2024 January 09 - January 10

Observer: Andrea Rossi, Ester Marini

Support: Justin Rupert

Telescope operator : Steve Allanson

Instrument: SHARK, MODS, PEPSI

### Summary

These observations have been performed by Justin Rupert with the support of LBT-Italia-obs remotely.

At sunset the sky is clear, we can open. SHARK took the first 3 hours of the night. We started observing with MODS at ~5 UT with clear sky and good seeing.

Night duration (12 degree - twilight) 01:22 - 13:24 UT = \* 12h\* \* 02m\*

Observing time: 7h 52min (65.4%)\*

Weather time loss: 1h 10min (9.7%)\*

Technical time loss: 0h 0min (0%)\*

Shark-VIS time loss: 3h 0min (24.9%)\*

### Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
Biazzo	GD 71	MODS Bino	dual grating		
Biazzo	Sh2-284	MODS Bino	dual grating	0.66h+0.66h	LS_2 ID 23; DIMM <1.2"

Biazzo	Sh2-284	MODS Bino	dual grating	0.83h+0.83h	LS_3 ID 30, we took 2 additional images due to flux loss (up to 3mag) during 2/3 of the script
Giannini	Gaia22dbd	MODS Bino	imaging ugriz		
Giannini	Gaia22dbd	MODS Bino	dual grating		seeing ~ 1-1.5", done with LUCI on 9Jan
Giannini	Gaia21ebu	MODS Bino	imaging ugriz		
Giannini	Gaia21ebu	MODS Bino	dual grating		variable seeing, 1"-1.8", done with LUCI on 9Jan
Bragaglia	Gaia DR3 34510097270314585 60	PEPSI BINO	D300/CDIII-C DVI	500sec+500s ec	S/N=93 on CD3, 115 on CD5
Bellazzini	Gaia DR3 37615870284762538 24	PEPSI BINO	D300/CDIII-C DVI	19 mins+19 mins	S/N on CD3=88, increased exp time from 15 mins to 19mins due to variable seeing, DIMM up to 2.5"

Bellazzini	Gaia DR3 Gaia DR3 72372133820438579 2	PEPSI BINO	D300/CDIII-C DVI	20+20mins	S/N on CD3=89
Bellazzini	Gaia DR3 Gaia DR3 79033875486806220 8	PEPSI BINO	D300/CDIII-C DVI	15+15mins	stopped the exp 4 minutes earlier since we closed for the high wind, but the S/N on CD3 is 78 (requeste d was 40) so the spectra are ok

Detailed log at this link:

[https://drive.google.com/file/d/14XhE93nT\\_8GY0u5auc-zLmCY\\_VTYNDhQ/view?usp=sharing](https://drive.google.com/file/d/14XhE93nT_8GY0u5auc-zLmCY_VTYNDhQ/view?usp=sharing)

Further details in the Log by Justin Rupert at this link:

<https://drive.google.com/file/d/1ZUIErGi4z8nmubbzkrjVOr6KykOeExkC/view?usp=sharing>

Summary of MODS science files:

[https://drive.google.com/file/d/1WI\\_py56TcBLzybKBhsC0yxQzHRxdmdTs/view?usp=sharing](https://drive.google.com/file/d/1WI_py56TcBLzybKBhsC0yxQzHRxdmdTs/view?usp=sharing)

Summary of MODS calib files:

<https://drive.google.com/file/d/1aXd5xo5zqd9pCsXs-g3Oz2Z-iMb0anPs/view?usp=sharing>

-- EsterMarini - 11 Jan 2024

## INAF queue observing, 2024 January 10 - January 11

Observer: Ester Marini, Simona Paiano

Support: Justin Rupert

Telescope operator : Steve Allanson

Instrument: MODS-PEPSI

### Summary

These observations have been performed by Justin Rupert with the support of LBT-Italia-obs remotely.

At sunset the sky is clear, the wind speed is below the limit (20m/s) but high enough to prevent us from pointing to the wind direction (south-west), humidity is 60%. We open at 00:22 UT and we start with MODS.

Night duration (12 degree - twilight) 01:22 - 13:24 UT = \* 12h\* \* 02m\*

Observing time: 02 h 57 min (25%)\*

Weather time loss: 09 h 07 min (75%)\*

Technical time loss: 00 h 00 min (0%)\*

Shark-VIS time loss: 00 h 00 min (0%)\*

### Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Grazian	Q3615817	MODS Bino	dual grating	0.17h+0.17h	seeing on average ~1.4" but it went up to 2.5" and we lost 2 mag of flux, we took an additional exposure
Grazian	Q4257900 6	MODS Bino	dual grating	0.17+0.17h	very variable seeing between 1" and 2" during the exposure, we took an additional image
Grazian	Q3691218 3	MODS Bino	dual grating	0.08+0.0.08h	seeing on average ~1.4"
Grazian	Q4257898 6	MODS Bino	dual grating	0.17+0.0.17h	seeing bouncing between 1.5" and 2" during the integration, we took an additional image
standard	GD71	MODS Bino	dual grating		

Detailed log at this link:

[https://drive.google.com/file/d/1mp2ISizC-EI5zw8ht\\_bZVH\\_QMzu6B5-7/view?usp=sharing](https://drive.google.com/file/d/1mp2ISizC-EI5zw8ht_bZVH_QMzu6B5-7/view?usp=sharing)

Further details in the log by Justin Rupert at this link:

<https://drive.google.com/file/d/1u8Qpw2kfFgbBZyBs9LkBC8Bv1y4S1ZWd/view?usp=sharing>

Summary of MODS calib files:

<https://drive.google.com/file/d/1F8dtQn8ESKlanEISiWxjzreThTU5Mlir/view?usp=sharing>

Summary of MODS science files:

<https://drive.google.com/file/d/1RbgwFZRw-c6XFXrRfuiCYDEQPlye5Apr/view?usp=sharing>

-- FeliceCusano - 12 Jan 2024

## INAF queue observing, 2024 January 11 - January 12

Observer: Felice Cusano, Andrea Rossi

Support: Justin Rupert

Telescope operator : Steve Allanson

Instrument:

## Summary

These observations have been performed by Justin Rupert with the support of LBT-Italia-obs remotely.

At sunset we are in the middle of a storm of snow. We stay closed all night for ice and snow.

Night duration (12 degree - twilight) 01:22 - 13:24 UT = \* 12h\* \* 02m\*

Observing time: 00 h 00 min (0%)\*

Weather time loss: 12 h 02 min (100%)\*

Technical time loss: 00 h 00 min (0%)\*

Shark-VIS time loss: 00 h 00 min (0%)\*

## Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
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Further details in the log by Justin Rupert at this link:

## INAF queue observing, 2024 February 13 - February 14

Observer: Felice Cusano, Adriana Gargiulo, Simona Paiano

Support: Justin Rupert

Telescope operator : Josh Williams

Instrument: LBC, MODS

## Summary

These observations have been performed in part in remote from Bologna by Felice Cusano and Adriana Gargiulo and in part by Justin Rupert with the support of LBT-Italia-obs remotely.

At sunset the sky is clear. At the beginning the SHARK-VIS starts observations, they operated until 04.00UT.

Then we switch to LBC, but we were not able to collimate and we used MODS up to the end of the night.

Night duration (12 degree - twilight) 02:00 - 13:00 UT = \* 11h\* \* 00m\*

Observing time: 6 h 50 min (62%)\*

Weather time loss: 0 h 00 min (0%)\*

Technical time loss: 2 h 10 min (20%)\*

Shark-VIS time loss: 2 h 00 min (18%)\*

## Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Marchesi	J1030	MODS1+2	dual grating	2h+2h	mask=MaskID 552749 - 1048.1030z28, see=1" <b>completed</b>
Marchesi	std star Feige34	MODS1+2	dual grating		

LaBarbera	NGC448 6 (M87)	MODS1+2	dual grating	0.33h+0.33 h	seeing stable <=1" <b>completed</b>
LaBarbera	std star Feige67	MODS1+2	dual grating		
LaBarbera	std star GD153	MODS1+2	dual grating		
Vietri	J1538	MODS1+2	red grating	0.37h+0.37 h	oscillating seeing
Vietri	J1538	MODS1+2	blue-red grating	0.5h (blue) + 0.5h (red)	
Calibration	flat+arc	MODS1+2	dual grating		took the 20240212 UT see list
Calibration	dark	LUCI1+2	dual grating		took the 20240212 UT see list

Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1BB4OTU2V-CuDwF0jcEHofjZXxMeACJ5\\_/view?usp=sharing](https://drive.google.com/file/d/1BB4OTU2V-CuDwF0jcEHofjZXxMeACJ5_/view?usp=sharing)  
and log by Justin Rupert:

[https://drive.google.com/file/d/1J\\_Bt9xjim3F1SyZRmmY2JACKWqyrL-qr/view?usp=sharing](https://drive.google.com/file/d/1J_Bt9xjim3F1SyZRmmY2JACKWqyrL-qr/view?usp=sharing)

Summary of MODS science files:

<https://drive.google.com/file/d/1rvQqmaMvqg6Cd5qdXHrLPV7OjiWqdZhP/view?usp=sharing>

Summary of MODS calib files:

[https://drive.google.com/file/d/1zDHOAAV\\_JNar9pObeuftucll38\\_8twPa/view?usp=sharing](https://drive.google.com/file/d/1zDHOAAV_JNar9pObeuftucll38_8twPa/view?usp=sharing)

Summary of LUCI calib files:

[https://drive.google.com/file/d/1mkJtN9bSmy8zzqzDsd\\_o5-0e9ZWrk0yE/view?usp=sharing](https://drive.google.com/file/d/1mkJtN9bSmy8zzqzDsd_o5-0e9ZWrk0yE/view?usp=sharing)

## INAF queue observing, 2024 February 14 - February 15

Observer: Ester Marini, Felice Cusano, Adriana Gargiulo

Support: Justin Rupert

Telescope operator : Josh Williams

Instrument: LUCI

### Summary

These observations have been performed in part by Justin Rupert with the support of LBT-Italia-obs remotely and in part in remote from Bologna by Felice Cusano and Adriana Gargiulo.

At sunset the sky is clear. We opened at 1:10UT. At the beginning the SHARK-VIS team starts observations, they operated until 04.00UT. After shark we observed mostly with LUCI1+AO.

Night duration (12 degree - twilight) 02:00 - 13:00 UT = \* 11h\* \* 00m\*

Observing time: 8 h 10 min (75%)\*

Weather time loss: 0 h 00 min (7%)\*

Technical time loss: 0 h 50 min (0%)\*

Shark-VIS time loss: 2 h 00 min (18%)\*

### Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Vignali_29	J080312	LUCI1-AO	N30-K	1.5h	fwhm 0.09-0.1", we took 6 additional exposures due to variable seeing <b>completed</b>
Vignali_29	J095920	LUCI1-AO	N30-K	1.8h	seeing ~0.7" <b>completed</b>
Vignali_29	J102325	LUCI1-AO	N30-K	1.4h	<b>completed</b>
Smart	2MassJ121 2	LUCI1-AO	N30-Ks,H	0.1h	<b>completed</b>
Smart	ULASJ1250	LUCI1-AO	N30-Ks,H	0.1h	<b>completed</b>
Piconcelli	BD302355	LUCI2	G210K		<b>completed</b>
Piconcelli	J132334	LUCI2	G210K	0.25h	only LUCI2 for problem @LUCI1, done half tot exp
Cals	Flat	LUCI1	K		for Vignali program
Cals	Flat	LUCI1	H		for Smart program
Cals	flat+arc	MODS1+2	dual, red		Marchesi, Ighina

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1BR9bydkRo95q9FZDUxdCsbd29sYhwV7q/view?usp=sharing>

and log from Justin Rupert:

<https://drive.google.com/file/d/1v8im1DBCTesvfvM0IVRIyDMChriHsZFu/view?usp=sharing>

Summary of LUCI science files:

<https://drive.google.com/file/d/1Qj9rJn5y6GbgyDzvQt4D6vnw4SJPzqjj/view?usp=sharing>

Summary of LUCI calib files:

[https://drive.google.com/file/d/1j5sJs5o6LI9IRnj53X58\\_gmPRg2afBNq/view?usp=sharing](https://drive.google.com/file/d/1j5sJs5o6LI9IRnj53X58_gmPRg2afBNq/view?usp=sharing)

Summary of MODS calib files:

[https://drive.google.com/file/d/1rmMBYtCbZ\\_bcX5lsgmFhQ5BjpEgKJd6Q/view?usp=sharing](https://drive.google.com/file/d/1rmMBYtCbZ_bcX5lsgmFhQ5BjpEgKJd6Q/view?usp=sharing)

## INAF queue observing, 2024 February 15 - February 16

Observer: Ester Marini, Felice Cusano, Adriana Gargiulo

Support: Justin Rupert

Telescope operator : Josh Williams

Instrument: MODS, PEPSI

## Summary

These observations have been performed in part by Justin Rupert with the support of LBT-Italia-obs remotely and in part in remote from Bologna by Felice Cusano and Adriana Gargiulo.

At sunset the sky is clear. We opened at 1:10UT. At the beginning the SHARK-VIS team starts observations, they operated until 03.00UT, they stop earlier for bad seeing.

We start with MODS and observe two targets for Biazzo, but for high seeing (>2") we switch to PEPSI at 05:54.

Night duration (12 degree - twilight) 02:00 - 13:00 UT = \* 11h\* \* 00m\*

Observing time: 9h 43min (79.3%)\*

Weather time loss: 0 h 00 min (%)\*

Technical time loss: 1 h 17min (11.7%)\*

Shark-VIS time loss: 1h 00 min (9%)\*

## Data Summary

Project_R UN	Objects	Instrume nt	Configurati on	ExpTime /Time_tot	Notes
Biazzo	ID77	MODS1-2	dual grating	1h/1.3h	<b>completed</b> 1+1 exp more for bad seeing
Biazzo	ID71	MODS1-2	dual grating	1h/2h	<b>completed</b> double total exp for bad seeing
Bellazzini	Gaia DR3 3802597128565139 584	PEPSI	D300/CD3- CD6	36min+36 min	S/N 101 (1st exp) and 114 (2nd exp) on CD3; 120 (1st exp) and 126 (2nd exp) on CD 6
Bellazzini	Gaia DR3 7583533087791720 96	PEPSI	D300/CD3- CD6	26min+26 min	try to halve the exp time because the S/N of the previous target were double than requested. S/N ~ 75 on CD3 and CD6
Bellazzini	Gaia DR3 3786469869966389 248	PEPSI	D300/CD3- CD6	40min+40 min	S/N ~ 110 on CD3 and CD6
Bellazzini	Gaia DR3 7573404524117027 84	PEPSI	D300/CD3- CD6	40min+40 min	S/N ~ 110 on CD3 and CD6

Bellazzini	Gaia DR3 3977532795798604 032	PEPSI	D300/CD3- CD6	40min+40 min	S/N ~ 115 on CD3 and CD6
Bellazzini	Gaia DR3 3910516630077055 872	PEPSI	D300/CD3- CD6	50min+50 min	S/N ~ 120 on CD3 and CD6
Bellazzini	Gaia DR3 4005409023335384 832	PEPSI	D300/CD3- CD6	40min+40 min	S/N ~ 115 on CD3 and ~130 on CD6
Bellazzini	Gaia DR3 8586199387802113 28	PEPSI	D300/CD3- CD6	10min+10 min	we did only 1 exp of 10+10 mins because of high background, but S/N~140
Calib		MODS1- 2	dual,red		
Calib		LUCI1-2	darks		

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1Qfj8atkCfR-ocdpBnWzMIZ36wlrwNaO/view?usp=sharing>

and log from Justin Rupert:

[https://drive.google.com/file/d/1JVoWo\\_8IzkOPBXuezgSoeFv20Oy7g7Bc/view?usp=sharing](https://drive.google.com/file/d/1JVoWo_8IzkOPBXuezgSoeFv20Oy7g7Bc/view?usp=sharing)

Summary of MODS science files:

<https://drive.google.com/file/d/1eMKtD6eSEMv0TMMIf1jayNhEpY7EurLZ/view?usp=sharing>

Summary of MODS calib files:

<https://drive.google.com/file/d/1SZC3hlvr4kCbQS70w2uGvAzOs4EeileM/view?usp=sharing>

Summary of LUCI calib files:

[https://drive.google.com/file/d/1XmpcvCfsDE0P2MZOJwfpZzWUIOEJ\\_D03/view?usp=sharing](https://drive.google.com/file/d/1XmpcvCfsDE0P2MZOJwfpZzWUIOEJ_D03/view?usp=sharing)

## INAF queue observing, 2024 February 16 - February 17

Observer: Andrea Rossi, Ester Marini

Support: Justin Rupert

Telescope operator : Josh Williams

Instrument: PEPSI

### Summary

These observations have been performed in part by Justin Rupert with the support of LBT-Italia-obs remotely.

At sunset the sky is clear. At the beginning the SHARK-VIS team starts observations, they operated until 04.15UT. We start with PEPSI. At 5:20 UT we slew to Pino's transit until 8.00UT. Forecasts predict clouds coverage increasing in the second part of the night.

Night duration (12 degree - twilight) 02:00 - 13:00 UT = \* 11h\* \* 00m\*

Observing time: 8h 25min (76.5%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 0h 15min (2.3%)\*

Shark-VIS time loss: 2h 20min (21.2%)\*

## Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_to_t	Notes
Bellazzini	858619938780211328	PEPSI	CD36	20m+20m	SNR~120,106
Pino	55Cnc	PEPSI		2.5h+2.5h	
Bellazzini	Gaia DR3 3974914308857260672	PEPSI	D300/CD3-C D6	0.83hr	S/N~120 on CD3 and CD6
Bellazzini	Gaia DR3 3925283831448507264	PEPSI	D300/CD3-C D6	0.6hr	S/N~120 on CD3 and CD6
Bellazzini	Gaia DR3 4033209315850237568	PEPSI	D300/CD3-C D6	0.67hr	S/N~115 and ~120 on CD3 and CD6
Bellazzini	Gaia DR3 3899810346056048896	PEPSI	D300/CD3-C D6	0.67hr	S/N~120 on CD3 and CD6
Bellazzini	Gaia DR3 3951060094855048960	PEPSI	D300/CD3-C D6	0.83hr	S/N~120 on CD3 and CD6
Bellazzini	Gaia DR3 3627342843477970176	PEPSI	D300/CD3-C D6	0.67hr	S/N~115 and ~120 on CD3 and CD6
Bellazzini	Gaia DR3 1679360873053906688	PEPSI	D300/CD3-C D6	0.67hr	S/N~110 and ~130 on CD3 and CD6
Bellazzini	Gaia DR3 3678227657495925504	PEPSI	D300/CD3-C D6	0.67hr	S/N~110 on CD3 and CD6
Bellazzini	Gaia DR3 1463095731963834240	PEPSI	D300/CD3-C D6	0.83hr	S/N~100 on CD3 and ~110 CD6

Bellazzini	Gaia DR3 39439344348733290 24	PEPSI	D300/CD3-C D6	0.50hr	S/N~120 on CD3 and 115 on CD6
Bellazzini	Gaia DR3 15247613949325076 48	PEPSI	D300/CD3-C D6	0.61hr	S/N~130 on CD3 and CD6
Bellazzini	Gaia DR3 14632197018998037 76	PEPSI	D300/CD3-C D6	0.5hr	S/N~130 on CD3 and CD6
Calib	flat, arc	MODS1-2			

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/19xnUCzCTJzvUhgK3FhO0-j1BmgxNoZ0B/view?usp=sharing>

and log from Justin Rupert:

<https://drive.google.com/file/d/1wfMgVQTdekGkPIUBF3393EcCgv30wFgE/view?usp=sharing>

Summary of MODS calib files:

<https://drive.google.com/file/d/1hlkTXFmU52KC0C6GVaYO0YsICcGMdjvn/view?usp=sharing>

## INAF queue observing, 2024 February 17 - February 18

Observer: Felice Cusano, Simona Paiano

Support: Justin Rupert

Telescope operator : Josh Williams

Instrument: LUCI, MODS, PEPSI

### Summary

These observations have been performed in part by Justin Rupert with the support of LBT-Italia-obs remotely.

At sunset the sky is clear. INAF starts the night, there will be no SHARK observations tonight. We start with LUCI1+AO, then we switch to MODS at 8:00 UT.

Night duration (12 degree - twilight) 02:00 - 13:00 UT = \* 11h\* \* 00m\*

Observing time: 9 h 15 min (84%)\*

Weather time loss: 0 h 0min (%)\*

Technical time loss: 1 h 45 min (16%)\*

Shark-VIS time loss: 0 h 00 min (%)\*

### Data Summary

Project_R UN	Objects	Instrum ent	Configurat ion	ExpTime /Time_tot	Notes
Mannucci DDT	Perseus	LUCI1+ AO	H, Ks	0.93h/0.93h	<b>completed</b>
Mannucci DDT	FS114	LUCI1	H, Ks	1.5min	photometric standard

Vignali	J0840	LUCI1+ AO	K	1.1h	<b>completed</b> variable seeing in some exposures
Ighina	HD82476	LUCI1-2	G200,zJsp ec		telluric
Ighina	PSJ1011	LUCI1-2	G200,zJsp ec	1.1h+1.1h/1.1h+ 1.1h	<b>completed</b>
Marchesi	std star Feige34	MODS1 +2	dual grating	done	some thin cirrus, seeing <1" , exct = 0.3 mag
Marchesi	J1030	MODS1 +2	dual grating	0.33h+0.33h	mask=MaskID 520051 - 1049.1030z28, see=1-1.1", several passing cirrus and ext up to 0.5mag
Ighina	PSJ1042	MODS1 +2	red grating	1.4h+1.4h	seeing < 1.1", some variable cirrus, ext =0.2-0.5 , an additional exposure to compensate for the loss of flux due to thin clouds
Ighina	GD153 std star	MODS1 +2	red grating		seeing < 1.1", cirrus, ext =0.5
Bellazzini	Gaia DR3 363867496006950 5408	PEPSI	D300/CD3- CD6	(20+20) min	file not saved to repeat
Bellazzini	Gaia DR3 361979332176349 1200	PEPSI	D300/CD3- CD6	(25+25) min	file not saved to repeat
Calib	flat	LUCI1	K, Ks, H	N30	

Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1eEdjPeJhT5BXR\\_OR7nNPmN4-do-okgiR/view?usp=sharing](https://drive.google.com/file/d/1eEdjPeJhT5BXR_OR7nNPmN4-do-okgiR/view?usp=sharing)  
and log from Justin Rupert:

[https://drive.google.com/file/d/1eqmC4iPYm\\_0Q6oSAwP\\_g9UtR\\_POssNEX/view?usp=sharing](https://drive.google.com/file/d/1eqmC4iPYm_0Q6oSAwP_g9UtR_POssNEX/view?usp=sharing)

Summary of LUCI science files:

[https://drive.google.com/file/d/1V39Uajxe-E\\_Zsr7CuBO2wqsjmq3FL4CG/view?usp=sharing](https://drive.google.com/file/d/1V39Uajxe-E_Zsr7CuBO2wqsjmq3FL4CG/view?usp=sharing)

Summary of LUCI calib files:

<https://drive.google.com/file/d/1gNuXiF6aag9h5k5tLvYUIWDzrOewKBca/view?usp=sharing>

Summary of MODS science files:

<https://drive.google.com/file/d/1KlznVhKPMpcdRFfDVfUINQsa52Claty4/view?usp=sharing>

## INAF queue observing, 2024 February 18 - February 19

Observer: Andrea Rossi, Ester Marini

Support: Andrew Cardwell

Telescope operator : Josh Williams

Instrument: LUCI, MODS

### Summary

These observations have been performed in part by Andrew Cardwell with the support of LBT-Italia-obs remotely. At sunset the sky is clear. SHARK-NIR starts the night, but seeing was bad so we start earlier than planned with LUCI, at 6:40 UT. We then switched to MODS at 10:43 UT.

Night duration (12 degree - twilight) 06:40 - 13:00 UT = \* 6h\* \* 20m\*

Observing time: 6h 15min (98.7%)\*

Weather time loss: h min (0%)\*

Technical time loss: 0h 5min (1.3%)\*

Shark-VIS time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
Maiorano	GRB240218 A	LUCI1+2	JHKs imaging	3hr	fwhm on images ~1", we took additional images due to very poor seeing in the first part of the integration
Telluric	BD+302355	LUCI1+2	G210/K		for Piconcelli
Piconcelli	J132334	LUCI1+2	G210/K	0.25hr	seeing 0.8-1", done only half of the script since we did the other 1/2 during the 20240215 night, <b>completed</b>
STD	BD+33	MODS1+2	red+blue grating		for Vietri

Vietri	J1538	MODS1+2	red+blue grating	0.5hr+0.5 hr	seeing~1", <b>completed</b>
Ighina	J1426	MODS1+2	red grating	0.5hr/2hr	seeing~1", we did only 1/4 of the script due to high background counts approaching sunrise

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1YsDk5QU67GteZSxtvaPfeChibmFhDXfN/view?usp=sharing>

and log from Andrew Cardwell:

<https://drive.google.com/file/d/1FA7EJjdBYMsOs4OXOpORRcXPA0djLxQp/view?usp=sharing>

Summary of LUCI science files:

<https://drive.google.com/file/d/1kYjR9wH0hKRhoTQH0pvs0ScICd0zsM8I/view?usp=sharing>

Summary of LUCI calib files:

<https://drive.google.com/file/d/1ha9nMnTwq0R2rS7EoAFdpNOSEAGltzQo/view?usp=sharing>

Summary of MODS science files:

[https://drive.google.com/file/d/11kAdAc\\_8tddeGEONFKWUHyZ0G9GwVfy/view?usp=sharing](https://drive.google.com/file/d/11kAdAc_8tddeGEONFKWUHyZ0G9GwVfy/view?usp=sharing)

## INAF queue observing, 2024 March 18 - March 19

Observer: Ester Marini Adriana Gargiulo

Support: Justin Rupert

Telescope operator : Steve Allanson

Instrument:

### Summary

These observations have been performed from the control room of LBT at the summit by Ester Marini and Adriana Gargiulo. At sunset the sky is covered by clouds and fog, humidity is 100%, wind gusts are over the limit. We stay close tonight.

Night duration (12 degree - twilight) 2:50 - 12:10 UT = \* 9h\* \* 20m\*

Observing time: 0h 0min (0%)\*

Weather time loss: 9h 20min (100%)\*

Technical time loss: 0h 0min (0%)\*

Shark-VIS time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
CALIB	flat 0.8", 1.2", 5", arcs, slitless flat	MODS1-2	dual grating		
CALIB	flat 1.2", 1", 0.6", 5",	MODS1-2	red grating		

	arcs, slitless flat			
CALIB	flat 0.6", 5", arcs, slitless flat	MODS1-2	blue grating	
CALIB	flat ugriz	MODS1-2	dual ima	
CALIB	bias	MODS1-2	3kx3k, 1kx1k, 8kx3k	
CALIB	arcs and flat	MODS1-2	MOS	for Marchesi, mask 1049
CALIB	arcs and flat	MODS1-2	MOS	for Marchesi, mask 1052
CALIB	arcs and flat	MODS1-2	MOS	for Gatto, mask F1
CALIB	arcs and flat	MODS1-2	MOS	for Gatto, mask F2
CALIB	dark	LUCI1-2		for Maiorano
CALIB	flats ima	LUCI1-2	J,H,Ks	for Giannini
CALIB	flat arc	LUCI1-2	G200_HK	for Giannini
CALIB	flat arc	LUCI1-2	G200_zJ	for Giannini
CALIB	flat arc	LUCI1-2	G210_K	for Piconcelli
CALIB	flat arc	LUCI1-2	G210_H	for Bischetti

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/14cqWj4pY7rRmu7gixWmRyEEuyu20lpoo/view?usp=sharing>

## INAF queue observing, 2024 March 19 - March 20

Observer: Ester Marini Adriana Gargiulo

Support: Justin Rupert

Telescope operator : David Gonzales Huerta

Instrument: LUCI

### Summary

These observations have been performed from the control room of LBT at the summit by Ester Marini and Adriana Gargiulo. At sunset there are clouds passing through the sky, but there are

some spots of clear sky. Humidity is ~75%, the wind is below the limit. We open at 2:14 UT and we start with LUCI, then we switch to MODS at 3:54UT and lastly we switch to PEPSI at 9:31UT. Night duration (12 degree - twilight) 2:50 - 12:10 UT = \* 9h \* 20m\*

Observing time: 7h 40min (82%)\*

Weather time loss: 1h 25min (15%)\*

Technical time loss: 0h 15min (3%)\*

Shark-VIS time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
CALIB	darks	LUCI1-2			for Giannini, Bischetti (good also for Piconcelli)
Maiorano	EP240315A	LUCI1-2	J ima	1hr/1hr	FWHM in the images 1.3"
Gatto	F1	MODS1-2	MOS	1.4/1.4hr	seeing between 0.9" and 1.2", problems in the bottom right panel of MODS1b (see log for details)
Bischetti	J1100	MODS1-2	red grating	30min/30min	
Bischetti	J1101	MODS1-2	red grating	30min/30min	
STD	GD153	MODS1-2	red grating		for Ighina and Bischetti
Ighina	J1426	MODS1-2	red grating	1.5h/2h	seeing ~1", 1/4 of the script was done during the previous run <b>completed</b>
Bellazzini	Gaia DR3 17114195053838735 36	PEPSI	D300/CD3-6	0.6hr/0.6hr	S/N on CD3 ~100 , on CD6 140

Bellazzini	Gaia DR3 14530687356735064 32	PEPSI	D300/CD3-6	0.8hr/0.8hr	S/N on CD3 ~85 , on CD6 93
Bellazzini	Gaia DR3 12531535042867919 36	PEPSI	D300/CD3-6	0.5hr/0.5.hr	S/N on CD3 ~60 , on CD6 ~80
CALIB	flats	LUCI1-2	H,K,J,z ima		for Saccheo
CALIB	flats	LUCI2	N30/K		for Mannucci
CALIB	flats	LUCI1	N30/H,Ks		for Smart
CALIB	flats	LUCI1-2	N30/Fell_Br G		for Massi

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1RNHO5gtOfexo1ZO6Q78vdz1klIRRjZX/view?usp=sharing>

## INAF queue observing, 2024 March 20 - March 21

Observer: Ester Marini Adriana Gargiulo

Support: Justin Rupert

Telescope operator : David Gonzales Huerta

Instrument: MODS

### Summary

These observations have been performed from the control room of LBT at the summit by Ester Marini and Adriana Gargiulo. At sunset there are clouds passing through the sky, but there are some spots of clear sky. Humidity and wind are below the limit. Shark-VIS team will start the night, they operated until 04:59 UT and then we reconfigure to MODS.

Night duration (12 degree - twilight) 2:50 - 12:10 UT = \* 9h\* \* 20m\*

Observing time: 4h 8min (44.3%)\*

Weather time loss: 2h 35min (27.7%)\*

Technical time loss: 0h 28min (5%)\*

Shark-VIS time loss: 2h 9min (23%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
CALIB	darks	LUCI1-2			for Saccheo, Mannucci, Smart, Massi
CALIB	flat	LUCI1-2			Massi
Gatto	F2	MODS1-2	MOS-dual	1.4/1.4hr	seeing~1"
Gatto	F3	MODS1-2	MOS-dual	1.4/1.4hr	seeing~1"

STD	Feige67	MODS1-2	dual grating		for La Barbera
La Barbera	VCC1521	MODS1-2	dual grating	0,46hr/0.46hr	seeing 1"

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/12re1uTuHLcd0Q9HdZip5At47t0sPe8xo/view?usp=sharing>

and log from Justin Rupert:

[https://drive.google.com/file/d/1KaprfXNollAgrK8VaUkayQZzAj-i\\_Aol/view?usp=sharing](https://drive.google.com/file/d/1KaprfXNollAgrK8VaUkayQZzAj-i_Aol/view?usp=sharing)

## INAF queue observing, 2024 March 21 - March 22

Observer: Ester Marini Adriana Gargiulo

Support: Justin Rupert

Telescope operator : David Gonzales Huerta

Instrument: MODS

### Summary

These observations have been performed from the control room of LBT at the summit by Ester Marini and Adriana Gargiulo. At sunset the sky is clear. Humidity and wind are below the limit. We open at 01:50UT Shark-VIS team will start the night, they operated until 05:00 UT and then we reconfigure to MODS.

Night duration (12 degree - twilight) 2:50 - 12:10 UT = \* 9h\* \* 20m\*

Observing time: 5h 27min (58.4%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 1h 43min (18.4%)\*

Shark-VIS time loss: 2h 10min (23.2%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Maiorano	EP240315A	LUCI1-2	ima-H	2h	we sent the script twice due to bad seeing
Piconcelli	J1444	LUCI1-2	G210/K	0.5h/0.5h	seeing 1"
Piconcelli	J1431	LUCI1-2	G210/K	0.5h/0.5h	seeing 1"
Telluric	BD3023	LUCI1-2	G210/K		For Piconcelli
Telluric	HD1382	LUCI1-2	G210/J		For Bischetti
Bischetti	J1536	LUCI1-2	G210/J	0.5h/0.5h	seeing 0.8"
Bischetti	J1426	LUCI1-2	G210/J	0.5h/0.5h	seeing 0.6", last exposure with high level of background

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/18fjFzQN8fSY8dnN1MCj48X7oELr6fSoU/view?usp=sharing>

and log from Justin Rupert:

[https://drive.google.com/file/d/1mp8ggQ\\_bGiKk-l-DFhA1EPkW7bC64eKq/view?usp=sharing](https://drive.google.com/file/d/1mp8ggQ_bGiKk-l-DFhA1EPkW7bC64eKq/view?usp=sharing)

-- EsterMarini - 23 Mar 2024

## INAF queue observing, 2024 March 22 - March 23

Observer: Ester Marini Adriana Gargiulo

Support: Justin Rupert

Telescope operator : David Gonzales Huerta

Instrument:

### Summary

These observations have been performed from the control room of LBT at the summit by Ester Marini and Adriana Gargiulo. At sunset there are some thin clouds scattered across the sky but conditions seems to be improving. Humidity and wind are below the limit. We open at 1:56UT. At 3:10UT the sky is 50% covered by clouds, we switch to PEPSI. At 04:07UT the sky is completely covered by thick clouds, we close. At 5:06UT we reopen but no GS was found due to clouds. We call the night at 12:56UT.

Night duration (12 degree - twilight) 2:50 - 12:10 UT = \* 9h\* \* 20m\*

Observing time: 2h 20min (25%)\*

Weather time loss: 6h 55min (74.1%)\*

Technical time loss: 0h 05min (0.9%)\*

Shark-VIS time loss: 0h 00min (%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
STD	GD71	MODS1+2	dual grating		for Biazzo
Biazzo	ID68	MODS1+2	dual grating	0.1/0.3h	we stopped after 1exp due to bad weather, <b>to be redone</b>
Bellazzini	Gaia DR3 401485382821786688 0	PEPSI	D300/CD3-C D6	1h/0.5h	exp time doubled due to clouds, S/N 141 on the blue side and 166

Bellazzini	Gaia DR3 394720726867244744	PEPSI	D300/CD3-C D6	1.07h/0.8 3	on the red side  exp time increase due to clouds, S/N 121 on the blue side and 131 on the red side
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Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1hMyj9T9aJuAPBJ71VlwIly\\_xW1RnS4UA/view?usp=sharing](https://drive.google.com/file/d/1hMyj9T9aJuAPBJ71VlwIly_xW1RnS4UA/view?usp=sharing)

and log from Justin Rupert:

<https://drive.google.com/file/d/1dKA178eHLJ9d5yhJHgv5lgSIFVuPeIPO/view?usp=sharing>

-- EsterMarini - 24 Mar 2024

## INAF queue observing, 2024 March 23 - March 24

Observer: Ester Marini Adriana Gargiulo

Support: Andrew Cardwell

Telescope operator : David Gonzales Huerta

Instrument:

### Summary

These observations have been performed from the control room of LBT at the summit by Ester Marini and Adriana Gargiulo. At sunset the sky is cloudy. Humidity is 54%, wind speed is over the limit, 23m/s. We stay close. We call the night at 9:15UT.

Night duration (12 degree - twilight) 2:50 - 12:10 UT = \* 9h\* \* 20m\*

Observing time: 0h 00min (0%)\*

Weather time loss: 9h 20min (100%)\*

Technical time loss: 0h 00min (0%)\*

Shark-VIS time loss: 0h 00min (%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
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Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1EKHchqtNey9cfU4ge8xRbi26muYnAo-5/view?usp=sharing>

and log from Andrew Cardwell:

<https://drive.google.com/file/d/1h8c4jt9Xpu54fPUvyCej9TxFPKr0bp-2/view?usp=sharing>

## INAF queue observing, 2024 March 24 - March 25

Observer: Ester Marini Adriana Gargiulo

Support: Andrew Cardwell

Telescope operator : David Gonzales Huerta  
Instrument:

## Summary

These observations have been performed from the control room of LBT at the summit by Ester Marini and Adriana Gargiulo. At sunset there is still snow on the allsky camera, 96% humidity and -8.7C. We stay closed tonight.

Night duration (12 degree - twilight) 2:50 - 12:10 UT = \* 9h\* \* 20m\*

Observing time: 0h 0min (0%)\*

Weather time loss: 9h 20min (100%)\*

Technical time loss: 0h 00min (0%)\*

Shark-VIS time loss: 0h 00min (%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
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Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1Yv57QPuZE01GtJqVr4m\\_dpBvGSAGXEkt/view?usp=sharing](https://drive.google.com/file/d/1Yv57QPuZE01GtJqVr4m_dpBvGSAGXEkt/view?usp=sharing)

and log from Andrew Cardwell:

<https://drive.google.com/file/d/1p-4w4823TCy3lpEzfgUISosDGFmVn3e9/view?usp=sharing>

## INAF queue observing, 2024 March 25 - March 26

Observer: Ester Marini Adriana Gargiulo

Support: Andrew Cardwell

Telescope operator : David Gonzales Huerta

Instrument:

## Summary

These observations have been performed from the control room of LBT at the summit by Ester Marini and Adriana Gargiulo. At sunset there is ice, snow, high humidity and high wind. We stay closed tonight.

Night duration (12 degree - twilight) 2:50 - 12:10 UT = \* 9h\* \* 20m\*

Observing time: 0h 0min (0%)\*

Weather time loss: 9h 20min (100%)\*

Technical time loss: 0h 00min (0%)\*

Shark-VIS time loss: 0h 00min (%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
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Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/10Yf8ur5Qexzwb1OqZRCDJwtEDbZET81/view?usp=sharing>

and log from Andrew Cardwell:

<https://drive.google.com/file/d/1k8VQEUtqidx5k8vpOGbAzrz9lxwZRJzB/view?usp=sharing>

## INAF queue observing, 2024 Apr 09 - Apr 10

Observer: Felice Cusano , Andrea Rossi

Support: Andrew Cardwell  
 Telescope operator : David Gonzales Huerta  
 Instrument: MODS

## Summary

These observations have been performed from the control room of LBT at the summit by Felice Cusano and Andrea Rossi.

At sunset there is clear. Humidity and wind are below the limit. We open at 1:56UT. We observed all the night with MODS see log and summary for details.

Night duration (12 degree - twilight) 2:45 - 11:45 UT = \* 9h\* \* 00m\*

Observing time: 8h 30min (94%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 0h 30min (6%)\*

Shark-VIS time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrumen t	Configuratio n	ExpTime /Time_tot	Notes
STD	Feige34	MODS1+2	red+dual grating		for Ighina, Marchesi
Ighina	PSJ0905	MODS1+2	red grating, slit 1"	0.6h+0.6h	Seeing <=1" completed
Marchesi	J1030z2 8	MODS1+2	dual grating, slitID520051	2h+2h	Seeing 0.7"-1." completed
La Barbera	NGC431 8	MODS1+2	dual grating	0.12h+0.12 h	Seeing 1" completed
La Barbera	NGC436 5	MODS1+2	dual grating	0.87h+0.87 h	seeing ~0.9 completed
La Barbera	NGC438 7	MODS1+2	dual grating	0.12h+0.12 h	seeing ~0.9 completed
Vietri	J01538	MODS1+2	red+blue grating	1h+1h	
STD	BD33	MODS1+2	red+blue grating		for Vietri
Ighina	PSJ1722	MODS1+2	red grating	0.5h+0.5h	
CALIBRATION S		MODS1+2			
CALIBRATION S		LUCI1+2			

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1xpVvJ2b4jEgMtDWDf9Ujt2PdZ9CAG1b9/view?usp=sharing>

and log from Andrew Cardwell:

<https://drive.google.com/file/d/1JmdKZvw393BqkwtYblbifFS7rovkR5u5/view?usp=sharing>

## INAF queue observing, 2024 Apr 10 - Apr 11

Observer: Felice Cusano , Andrea Rossi

Support: Andrew Cardwell

Telescope operator : John Hill

Instrument: MODS

### Summary

These observations have been performed from the control room of LBT at the summit by Felice Cusano and Andrea Rossi.

At the sunset the sky is clear we can open. We observed all the night with MODS, with a 2 hours stop for SHARK-VIS observations. See log and summary for details.

**NOTE: some mods2r files have a problem with header.** They report two times some keywords, like the keyword MASKNAME. The correct one is the first that appears in the header.

Night duration (12 degree - twilight) 2:45 - 11:45 UT = \* 9h\* \* 00m\*

Observing time: 6h 46min (75%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 0h 20min (4%)\*

Shark-VIS time loss: 1h 54min (21%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
CALIBRATIONS		MODS1+2			
STD	Feige34	MODS1+2	dual		LaBarbera
Marchesi	1030z28	MODS1+2	dual	2.7h	4/6 exp done up to now
La Barbera	NGC4374	MODS1+2	dual	1.6h	completed
Ighina	PSJ1557	MODS1+2	red	1.5h	completed
Ighina	PSJ1722	MODS1+2	red	1h	completed
Giannini	Gaia23bab	MODS1+2	grizima	2min	
Giannini	Gaia23bab	MODS1+2	dual	0.5h	
CALIBRATIONS	MODS1+2				
CALIBRATIONS	LUCI1+2				error in luci2 G200 calibs, do not use

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1jG3ws-O3EkSFfeYYydA-03pg89GG0JmrP/view?usp=sharing>

and log from Andrew Cardwell:

<https://drive.google.com/file/d/1GqPGGTSU4KEb9luM3diQ1F3fM7Jc4s8L/view?usp=sharing>

## INAF queue observing, 2024 Apr 11 - Apr 12

Observer: Felice Cusano , Andrea Rossi

Support: Andrew Cardwell

Telescope operator : Riccardo Ansaldi

Instrument: MODS

### Summary

These observations have been performed from the control room of LBT at the summit by Felice Cusano and Andrea Rossi.

Weather was good, we observed all the night with MODS. Some technical problems, see summary and log for details.

**NOTE: mods2r files have a problem with header.** They report two times some keywords, like the keyword MASKNAME. The correct one is the first that appears in the header.

Night duration (12 degree - twilight) 2:45 - 11:45 UT = \* 9h\* \* 00m\*

Observing time: 7h 25min (85%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 1h 35min (15%)\*

Shark-VIS time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
CALIBRATIONS		MODS1+2			
CALIBRATIONS		LUCI1+2			
Marchesi	1030z28	MODS1+2	dual	1.3h	mask1052 completed
Gatto	Sext2	MODS1+2	dual	1.4h	
LaBarbera	NGC4472	MODS1+2	dual	0.28h	seeing>1.5", do not consider this
Bischetti	J1318	MODS1+2	redgrating	0.5h	seeing~1"
Bischetti	J1421	MODS1+2	redgrating	0.5h	seeing~1"
Bischetti	J1536	MODS1+2	redgrating	0.5h	seeing ~0.9"
Troja	GRB2400402 B	MODS1+2	gr dual-imaging	1.2h	g for free, FWHM<1"

Troja	GRB2400402 B	MODS1+2	gz dual-imaging	0.8h	g for free, FWHM<1"
Giannini	Gaia18ale	MODS1+2	dual	0.25h	half time as target is brighter than in catalog

CALIBRATION  
S

MODS1+2

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1fte7iyUEHDYOIfiXbLrfCtJseDXI-ZOW/view?usp=sharing>

and log from Andrew Cardwell:

<https://drive.google.com/file/d/1VJwovCFBURpKIIUzswx5l2PRc2UpUKO/view?usp=sharing>

## INAF queue observing, 2024 Apr 12 - Apr 13

Observer: Felice Cusano , Andrea Rossi

Support: Andrew Cardwell

Telescope operator : Riccardo Ansaldi

Instrument: MODS

## Summary

These observations have been performed from the control room of LBT at the summit by Felice Cusano and Andrea Rossi. At the start of the night the sky is clear but windy with guts above the limits. At the sunset we stay close. We opened at 02:40 at start with PEPSI.

For a problem with collimation left side we lost 1.5h, we observed the transit just with right side.

Problem with left side solved after the transit.

Night duration (12 degree - twilight) 2:45 - 11:45 UT = \* 9h \* 00m\*

Observing time: 6h 40min (74%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 2h 20min (26%)\*

Shark-VIS time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrumen t	Configuration	ExpTime /Time_tot	Notes
CALIBRATIONS		MODS1+2			
Pino	55Cnc	PEPSI-BIN O	D300 CD-1 CD-4	2.5h	only right side
Bellazzini	369664698552263014 4	PEPSI-BIN O	D300 CD-3 CD-6	0.61h	CD-6 S/N~100

Bellazzini	370661763184091763 2	PEPSI-BIN O	D300 CD-1 CD-6	0.61h	CD-1 S/N~46; CD-6 S/N~121 , wrong conf in blue, done 2x, see below
Bellazzini	370661763184091763 2	PEPSI-BIN O	D300 CD-3 CD-5	0.61h	CD-3 S/N~46; CD-5 S/N~
Bellazzini	393315289872946700 8	PEPSI-BIN O	D300 CD-3 CD-6	0.83h	CD-3 S/N~91; CD-6 S/N~124
Marini	IRAS 17381-1616	PEPSI-BIN O	D300 CD-1 CD-4	2.08h	CD-1 S/N~77; CD-4 S/N~232
Marini	IRAS 17381-1616	PEPSI-BIN O	D300 CD-3 CD-6	0.69h	CD-3 S/N~119; CD-6 S/N~138
Bellazzini	149276519424644761 6	PEPSI-BIN O	D300 CD-3 CD-6	0.83h	CD-3 S/N~91; CD-6 S/N~111
Bellazzini	1185488115604463616	PEPSI-BIN O	D300 CD-3 CD-6	0.61h	CD-3 S/N~112; CD-6 S/N~104
CALIBRATIONS		MODS1+2			
CALIBRATIONS		PEPSI			

Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1nuzZ6vQbgCE--Er0lch7GU\\_1OIsOf3TH/view?usp=sharing](https://drive.google.com/file/d/1nuzZ6vQbgCE--Er0lch7GU_1OIsOf3TH/view?usp=sharing)

and log from Andrew Cardwell:

[https://drive.google.com/file/d/1r\\_WmvXowF0DI8LLDfvLgfWXKqq8S6MIS/view?usp=sharing](https://drive.google.com/file/d/1r_WmvXowF0DI8LLDfvLgfWXKqq8S6MIS/view?usp=sharing)

PEPSI log:

<https://drive.google.com/file/d/1YvQKuytjiimeHtREkR11cSr1k-Aey3ZN/view?usp=sharing>

## INAF queue observing, 2024 Apr 13 - Apr 14

Observer: Felice Cusano , Andrea Rossi

Support: Andrew Cardwell

Telescope operator : Josh Williams

Instrument: MODS

### Summary

These observations have been performed from the control room of LBT at the summit by Felice Cusano and Andrea Rossi. At the start of the night the sky is clear. We started with MODS and switched to LUCI at about 8 U. See logs and summary for details.

**NOTE: mods2r files have a problem with header.** They report two times some keywords, like the keyword MASKNAME. The correct one is the first that appears in the header.

Night duration (12 degree - twilight) 2:45 - 11:45 UT = \* 9h\* \* 00m\*

Observing time: 8h 10min (91%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 0h 50min (9%)\*

Shark-VIS time loss: 0h 0min (0%)\*

### Data Summary

Project_RU N	Objects	Instrumen t	Configuratio n	ExpTime /Time_to t	Notes
Gatto	SexIIF2	MODS1+2	dual	1.2h	FWHM<=1" completed
Gatto	SexIIF3	MODS1+2	dual	0.24h	FWHM~1"
Maiorano	GRB240414 A	MODS1+2	dual	0.25h	
La Barbera	NGC4458	MODS1+2	dual	0.66h	completed
La Barbera	NGC4434	MODS1+2	dual	0.25h	completed
La Barbera	NGC4473	MODS1+2	dual	0.25h	completed
Troja	GRB 240402B	LUCI1+2	ima K	0.5h	
Saccheo	J231	LUCI1+2	ima zJHK	1h	FWHM ~1.2" completed
STD	P330E	LUCI1+2	ima zJHK		for Saccheo
Telluric	HIP98640	LUCI1+2	G200zj+HK		
Giannini	Gaia23bab	LUCI1+2	G200zj+HK	0.5h	Consider LUCI 1 only completed

Giannini	Gaia23bab	LUCI1+2	ima jHK	0.1h
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Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/18\\_Va8OGsJvwX8Ibfh1sHluW9B7TysIDk/view?usp=sharing](https://drive.google.com/file/d/18_Va8OGsJvwX8Ibfh1sHluW9B7TysIDk/view?usp=sharing)

and log from Andrew Cardwell:

<https://drive.google.com/file/d/1edlFign8Ms52UgjCFU6tkltrlD9dYmaw/view?usp=sharing>

## INAF queue observing, 2024 Apr 14 - Apr 15

Observer: Felice Cusano , Andrea Rossi

Support: Andrew Cardwell

Telescope operator : Riccardo Ansaldi

Instrument: MODS

### Summary

These observations have been performed from the control room of LBT at the summit by Felice Cusano and Andrea Rossi. At the start of the night the winds are beyond limits and we stay closed.

Night duration (12 degree - twilight) 2:45 - 11:45 UT = \* 9h\* \* 00m\*

Observing time: 1h 0min (11%)\*

Weather time loss: 8h 0min (89%)\*

Technical time loss: 0h 0min (0%)\*

Shark-VIS time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Bischetti	J1345	MODS1+2	red-grating	0.25/0.5h	

Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/14dBpZHumlxEqwDI1vvo\\_GmTlgmIDXKxp/view?usp=sharing](https://drive.google.com/file/d/14dBpZHumlxEqwDI1vvo_GmTlgmIDXKxp/view?usp=sharing)

and log from Andrew Cardwell:

[https://drive.google.com/file/d/176vVs4vQofnpZOcJGfw9\\_DHFhnSiVQnQ/view?usp=sharing](https://drive.google.com/file/d/176vVs4vQofnpZOcJGfw9_DHFhnSiVQnQ/view?usp=sharing)

## INAF queue observing, 2024 May 04 - May 05

Observer: Ester Marini, Felice Cusano

Support: Justin Rupert

Telescope operator: David Gonzales Huerta

Instrument: LBC, PEPSI

## Summary

These observations have been performed in C-19 mode by Ester Marini for the first half of the night, then from the remote control room in Bologna by Felice Cusano. At sunset there are some thin cirrus passing through. Wind speed is 10.9m/s, humidity is 28.8%. We open at 02:13UT.

Switching to PEPSI at 6:40 for clouds. Observed only one target, then thick clouds for the rest of the night.

Night duration (12 degree - twilight) 3:00 - 11:30 UT = \* 8h \* 30m\*

Observing time: 4h 0min (47%)\*

Weather time loss: 4h 0min (47%)\*

Technical time loss: 0h 30min (6%)\*

Shark-VIS time loss: 0h 0min (0%)\*

### Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
Giunta	2021Bs1	LBC bino	griz	0.2hr	blue images are elongated all over the chips, red are elongated only further from the center
Vito	J104845	LBC bino	rY	1h+1h	fwhm on average ~0.9-0.8", lbc*050052.fits bad image <b>completed</b>

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Bellazzini	39557904301015525 12	PEPSI-bin o	CD3-6	0.83h	S/N CD3=69 , more for clouds <b>completed</b>
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Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1O-HaQ1Vuk07dyOcuDz2xYuRTemisbQQn/view?usp=sharing>

and log from Justin Rupert:

[https://drive.google.com/file/d/1aPDn8cUvedwcOpyDU9-f\\_ZTgdCGxt291/view?usp=sharing](https://drive.google.com/file/d/1aPDn8cUvedwcOpyDU9-f_ZTgdCGxt291/view?usp=sharing)

## INAF queue observing, 2024 May 05 - May 06

Observer: Felice Cusano , Simona Paiano, Ester Marini

Support: Justin Rupert

Telescope operator: David Gonzales Huerta

Instrument:

### Summary

These observations have been performed in C-19 mode by Felice Cusano for the first half of the night, then Simona (C-19 mode) and Ester (remote mode from the Rome control room). At sunset the wind is above the limit for opening, 27 m/s, we stay closed. Strong wind kept us closed all night!

Night duration (12 degree - twilight) 3:00 - 11:30 UT = \* 8h\* \* 30m\*

Observing time: 0 h 0min (0%)\*

Weather time loss: 08 h 30min (100%)\*

Technical time loss: 0h 0min (0%)\*

Shark-VIS time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Calibration		MODS1-2	flat,arc		

Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1QHa6TAR3K3qNWu3lPlSsZJZraefjW\\_wN/view?usp=sharing](https://drive.google.com/file/d/1QHa6TAR3K3qNWu3lPlSsZJZraefjW_wN/view?usp=sharing)

and log from Justin Rupert:

<https://drive.google.com/file/d/13UxZOPP5WEDuXPoIKW73pP-fXkaR04up/view?usp=sharing>

## INAF queue observing, 2024 May 06 - May 07

Observer: Andrea Rossi, Felice Cusano

Support: Justin Rupert

Telescope operator: David Gonzales Huerta

Instrument: LBC, PEPSI

### Summary

These observations have been performed in C-19 mode by Andrea Rossi and Felice Cusano.

At sunset the sky is clear and we open, though with strong winds and 5 degrees temperature difference between mirrors and outside.

We started with LBC, but for bad seeing we switched to PEPSi after one hour. We observed with PEPSI for roughly 3.5h, then switched back to LBC as conditions improved a lot.

Night duration (12 degree - twilight) 3:00 - 11:30 UT = \* 8h\* \* 30m\*

Observing time: 8h 0 min (94%)\*

Weather time loss: h min (%)\*

Technical time loss: h 30 min (6%)\*

Shark-VIS time loss: 0h 0min (%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
CALIBRATION	SKYFLATS	LBCblue+red	r,z		0+180 deg, to be checked
Giunta	2019LF6	LBCblue+red	griz		done twice
Bellazzini	3682531008568011008	PEPSI	CD36	0.83h	S/N 93,111 completed
Bellazzini	3638674960069505408	PEPSI	CD36	0.67h	S/N 96,112 completed
Bellazzini	3723471358387670912	PEPSI	CD36	0.5h	S/N 85,112 completed
Bellazzini	3664595018981199744	PEPSI	CD36	0.61h	S/N 102, 106 completed
Bellazzini	3619793321763491200	PEPSI	CD36	0.83h	S/N 95, 111==completed ==
Bellazzini	3652777326271275392	PEPSI	CD36	0.67h	S/N completed

Bellazzini	1177592007209173 632	PEPSI	CD36	0.61h	S/N completed
Vito	J142952	LBCblue+red	ri	0.62h+0.6 2h	ri_1 done, first obs stopped after 7 images for problems in blue
Giunta	2023KQ5	LBCblue+red	griz	0.18h + 0.18h	done up to twilight -12
skyflat		LBCblue+red	g,r,U ; i, r, Y		pos angle 0

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1CfK9ZmkguO2CUpp0Bed9HmforfLjaob/view?usp=sharing>

and log from Justin Rupert:

<https://drive.google.com/file/d/16YDanL4y5GBITY0xMvih1p78BjSATaxp/view?usp=sharing>

## INAF queue observing, 2024 May 07 - May 08

Observer: Felice Cusano, Ester Marini

Support: Justin Rupert

Telescope operator: Joshua Williams

Instrument: MODS

### Summary

These observations have been performed in C-19 mode by Felice Cusano and Ester Marini.

At sunset the sky is clear, but the wind is at the limit, we stay closed. We open for about 2 hours at the end of the night and we observe with MODS

Night duration (12 degree - twilight) 3:00 - 11:30 UT = \* 8h\* \* 30m\*

Observing time: 2h 20min (27.5%)\*

Weather time loss: 5h 48min (68.2%)\*

Technical time loss: 0h 22min (4.3%)\*

Shark-VIS time loss: 0h 0min (%)\*

#### Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
CALIBRATION	BinoBlas	LBCblue+red			
Bischetti	J162623	MODS1+2	red grating	0.5hr/0.5hr	variable seeing 1-2"
STD	BD+28	MODS1+2	red grating		for Bischetti

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1g1x8rLGjEqv40B2Z0tMGRkG4Nbabuqba/view?usp=sharing>

and log from Justin Rupert:

[https://drive.google.com/file/d/1xfkbKuEIC8N6bi\\_\\_2Kx3zurS9uNzoeR/view?usp=sharing](https://drive.google.com/file/d/1xfkbKuEIC8N6bi__2Kx3zurS9uNzoeR/view?usp=sharing)

### INAF queue observing, 2024 May 08 - May 09

Observer: Andrea Rossi, Ester Marini

Support: Justin Rupert

Telescope operator: Joshua Williams

Instrument: MODS/PEPSI

## Summary

These observations have been performed in C-19 mode by Andrea Rossi and Ester Marini, with some Bischetti targets observed remotely by Ester Marini from the control room in Rome.

At sunset the sky is clear, we open with wind gusts from west-south-west at the limit.

Night duration (12 degree - twilight) 3:00 - 11:30 UT = \* 8h\* \* 30m\*

Observing time: 8h 12min (96.5%)\*

Weather time loss: h min (%)\*

Technical time loss: 0h 18min (3.5%)\*

Shark-VIS time loss: 0h 0min (%)\*

### Data Summary

Project_R UN	Objects	Instrume nt	Configurati on	ExpTime /Time_tot	Notes
STD	GD153	MODS1+ 2	dual+red		
LaBarbera	NGC4621	MODS1+ 2	dual	0.3+0.3h	completed
LaBarbera	NGC4660	MODS1+ 2	dual	0.125+0.1 25h	FWHM<1" completed
LaBarbera	NGC4472	MODS1+ 2	dual	0.42+0.42 h	completed
Bischetti	J102622	MODS1+ 2	red	0.25+0.25 hr	seeing 0.8"

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Bischetti	J1425	MODS1+ 2	red	0.19+0.19 hr	Lost the last exposure due the wind
Bischetti	J1653	MODS1+ 2	red	0.25+0.25 hr	seeing 0.7"
Bischetti	J1659	MODS1+ 2	red	0.25+0.25 hr	seeing 0.9"
Bellazzini	Gaia DR3 159185953869255 2960	PEPSI	300/CD3-C D6	0.83hr	S/N~80 on the blue and ~100 on the red
Bellazzini	Gaia DR3 150821917377170 2528	PEPSI	300/CD3-C D6	0.83hr	S/N~88 on the blue and ~161 on the red
Marini	IRAS 20097+2010	PEPSI	300/CD1-C D4	0.5hr	S/N~62 on the blue and ~231 on the red

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1ssOUCeifiZBqtrZP7tV2ZXUm6njexhmN/view?usp=sharing>

and log from Justin Rupert:

<https://drive.google.com/file/d/1ZYkyoLx38IBMtrhXVTuWslfiBnF4yj7k/view?usp=sharing>

## INAF queue observing, 2024 June 04 - June 05

Observer: Felice Cusano, Ester Marini (and Lorenzo Napolitano)

Support: Justin Rupert

Telescope operator: Steve Allanson

Instrument: LBC

### Summary

These observations have been performed in C-19 mode by Felice Cusano and Ester Marini from the remote control room in Rome (with the support of Lorenzo Napolitano, phd student). At sunset there are some thin cirrus passing through. We dedice to use LBC as the clouds are running away.

Sky was clear for the rest of the night with good seeing.  
 Night duration (12 degree - twilight) 3:30 - 11:10 UT = \* 7h\* \* 40m\*  
 Observing time: 7h 17min (95%)\*  
 Weather time loss: h min (0%)\*  
 Technical time loss: 0h 23min (5%)\*  
 Shark-VIS time loss: h min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
sky flat		LBC bino	r-sloan,r-sloan; Y-fan, z-sloan		some cirrus
Vito	J1148	LBC bino	r-sloan; Y-fan	1h+1h/1+1h	<b>completed</b>
Vito	J141111	LBC bino	r-sloan; Y-fan	0.75h+0.75h/1+1h	*rY_2_short_2 to be done
Vito	J1429	LBC bino	r-sloan; i-sloan	0.5h+0.5h/1+1h	ri_2 done, ri_3 to be done
Maiorano	<b>GRB240529 A</b>	LBC bino	r- i-sloan, U-spec z-sloan, g-z-sloan	0.6+0.6hr	trace on images lbc*100534 and lbc*100258

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1WL5zhfYH4fehaye72NAjE-mpEnzYQ1muM/view?usp=sharing>

and log from Justin Rupert:

<https://drive.google.com/file/d/1JxDDTocBtrWkms1mynTCdRI6o0uav46v/view?usp=sharing>

## INAF queue observing, 2024 June 05 - June 06

Observer: Ester Marini, Andrea Rossi

Support: Justin Rupert

Telescope operator: Steve Allanson

Instrument: MODS

### Summary

These observations have been performed in C-19 mode by Ester Marini and Andrea Rossi. At sunset sky is clear. SHARK observed for the first part of the night. We take the telescope at 8:50 UT.

Night duration (12 degree - twilight) 3:30 - 11:10 UT = \* 7h\* \* 40m\*

Observing time: 2h 0min (26%)\*

Weather time loss: 0h min (0%)\*

Technical time loss: 0h min (0%)\*

Shark-VIS time loss: 5h 40min (74%)\*

#### Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
STD	BD33	MODS1+2	dual+red		
Troja	GRB231117 A	MODS1+2	dual	1+1 hr	FWHM<1"

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1BZq1kFrPU5zqM5-JUVC9HFJt8oNxIVm/view?usp=sharing>

and log from Justin Rupert:

<https://drive.google.com/file/d/1oHToUGjBVRo6h5gZN50bxCC3v5CnN8JZ/view?usp=sharing>

### INAF queue observing, 2024 June 06 - June 07

Observer: Andrea Rossi, Simona Paiano

Support: Justin Rupert

Telescope operator: Steve Allanson

Instrument: PEPSI, MODS

### Summary

These observations have been performed in C-19 mode by Andrea Rossi and Simona Paiano. At sunset sky is covered with thin cirrus, but we can open.

Variable clouds in most part of the night, at the end clear. We observed with PEPSI and the last two hours with MODS.

Night duration (12 degree - twilight) 3:30 - 11:10 UT = \* 7h\* \* 40m\*

Observing time: 07 h 24 min (%)\*

Weather time loss: 00 h 00 min (%)\*

Technical time loss: 00 h 16 min (%)\*

Shark-VIS time loss: 00 h 00 min (%)\*

#### Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
Bellazzini	128264450208791884 8	PEPSI1+2	PFU CD3-6	1.34/0.67 hrs	SNR 108-143 on CD3-6, doubled exp time for clouds

Bellazzini	126873275941890816 0	PEPSI1+2	PFU CD3-6	0.61/0.61 hrs	SNR 66 and 72 on CD3-6 with thin clouds
Bellazzini	1176300630802368768	PEPSI1+2	PFU CD3+6	0.83/0.83 hrs	SNR 77 and 83 on CD3-6 with thin clouds
Bellazzini	442138564256462540 8	PEPSI1+2	PFU CD3+6	0.61/0.61 hrs	SNR 76 and 102 on CD3-6 with thin clouds
Bellazzini	170202837041259980 8	PEPSI1+2	PFU CD3+6	0.61/0.61 hrs	SNR 60 and 58 on CD3-6 with thin clouds
Bellazzini	633497076610338982 4	PEPSI1+2	PFU CD3+6	0.91/0.61 hrs	SNR 59 and 80 on CD3-6 with thin clouds
Bellazzini	121813773543578508 8	PEPSI1+2	PFU CD3+6	1.0/0.67 hrs	SNR 82 and 85 on CD3-6 with thin clouds
Bellazzini	441897173350509312 0	PEPSI1+2	PFU CD3+6	1.25/0.83 hrs	SNR 106 and 140 on CD3-6 with thin clouds

Bellazzini	440133120330937152 0	PEPSI1+2	PFU CD3+6	0.91/0.61 hrs	SNR 102 and 143 on CD3-6 with thin clouds
Cusano	Gaia24bip	PEPSI1+2	PFU CD3+5		SNR n/a and 65 on CD3-6 with thin clouds - issue with the CD3 spectru m (see log)
Cusano	Gaia24bip	PEPSI1+2	PFU CD3+4		SNR n/a and 52 on CD3-6 with thin clouds - issue with the CD3 spectru m (see log)
Marini	IRAS 20097+2010	PEPSI1+2	PFU CD1+4	0.5/0.5 hrs	SNR 52 and 254 on CD1-4 with thin clouds
Giannini	Gaia23dhi	MODS1+2	Dual Grating + Imaging	0.25+0.2 5	seeing = 0.6
Giannini	Gaia24afw	MODS1+2	Dual Grating + Imaging	0.25+0.2 5	seeing = 0.6

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1DDY-z-5yXYbAHSMHliVvOaLvlhu2AB6p/view?usp=sharing>

and log from Justin Rupert:

[https://drive.google.com/file/d/13JHafRGA\\_pc67Sa9YOegSQet9-und7Dk/view?usp=sharing](https://drive.google.com/file/d/13JHafRGA_pc67Sa9YOegSQet9-und7Dk/view?usp=sharing)

## INAF queue observing, 2024 June 07 - June 08

Observer: Felice Cusano, Ester Marini  
 Support: Jennifer Power  
 Telescope operator: Steve Allanson  
 Instrument: MODS

### Summary

These observations have been performed in C-19 mode by Felice Cusano and Ester Marini. At sunset sky is covered with thin thick clouds, we stay closed. We open at 06:37UT and we use MODS1+2, but we have to close again at 08:06UT. We re-open at 09:57UT and we observe until 18degree twilight.

Night duration (12 degree - twilight) 3:30 - 11:10 UT = \* 7h\* \* 40m\*

Observing time: 2 h 28min (32.2%)\*

Weather time loss: 4 h 57 min (64.6%)\*

Technical time loss: 0 h 15min (3.2%)\*

Shark-VIS time loss: 00 h 00 min (%)\*

#### Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Standard	GD153	MODS1-2	red+blue, red		mods1 red + mods2 blue
Giannini	Gaia24beh	MODS1-2	dual	0.02hr	
Giannini	Gaia24beh	MODS1-2	dual grating	0.25hr+0.25hr/0.25hr+0.25hr	seeing ~ 0.8"
MODS Calib		MODS1-2	dual grating		3Kx3K , 1kx1k bias, flat ima ugriz, dual flat 0.8", dual arcs, dual flat slitless

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1CxALywjVr0C5Q5av-lkfkMUgH7hM01Z/view?usp=sharing>

and log from Jennifer Power:

[https://drive.google.com/file/d/1Obe7XZGcqPFbfbk2\\_EwMmlie-sicAMhh/view?usp=sharing](https://drive.google.com/file/d/1Obe7XZGcqPFbfbk2_EwMmlie-sicAMhh/view?usp=sharing)

## INAF queue observing, 2024 June 08 - June 09

Observer: Ester Marini, Felice Cusano

Support: Jennifer Power

Telescope operator: Steve Allanson

Instrument: MODS

### Summary

These observations have been performed in C-19 mode by Ester Marini and Felice Cusano. At sunset sky is clear, humidity and wind speed below the limit. We open at at 02:35 UT.

Variable clouds during the night, at 08:00 thick clouds we have to close.

Night duration (12 degree - twilight) 3:30 - 11:10 UT = \* 7h \* \* 40m\*

Observing time: 4 h 40min (60%)\*

Weather time loss: 3 h 0 min (40%)\*

Technical time loss: 0 h 0min (0%)\*

Shark-VIS time loss: 00 h 00 min (%)\*

Data Summary

Project_R UN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Calibrations		MODS1+ 2	dual grating		flat 1", flat 5", Bias 8kx3k
Vietri	J1538	MODS1+ 2	red+blue	1hr+1hr/1hr+1hr	0.5mag of flux loss during part of the last exposure, some clouds passing through, seeing 0.9-1.1"
Grazian	Q425794 01	MODS1+ 2	dual grating	0.08+0.08hr	exp time doubled due to clouds, seeing 1.2"
Grazian	4257933 3	MODS1+ 2	dual grating	0.08+0.08hr	exp time doubled due to clouds, seeing 1.2"

Bischetti	J12201	MODS1+ 2	red grating	0.25hr+0.25hr/0.25hr+0.25hr	<b>completed</b>
Bischetti	J1309	MODS1+ 2	red grating	0.25hr+0.25hr/0.25hr+0.25hr	<b>completed</b> clouds during exp
Grazian	4257954 4	MODS1+ 2	dual grating	0.08+0.08hr	4Xexp due to clouds

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1LbItZxe87eKMJOh3t3MwPNz07OJTA-3r/view?usp=sharing>

and log from Jennifer Power:

<https://drive.google.com/file/d/1uZ9ydIIQyUmqBTZIYmsdrxYrH3sPI1iE/view?usp=sharing>

## INAF queue observing, 2024 June 09 - June 10

Observer: Andrea Rossi, Simona Paiano

Support: Jennifer Power

Telescope operator: Steve Allanson

Instrument: PEPSI, LBC, LUCI

### Summary

These observations have been performed in C-19 mode by Andrea Rossi and Simona Paiano. At sunset sky is cloudy but we can open and start observing with PEPSI. When the sky cleared up at 5:30 UT, we switched to LBC for Vito strategic program, and then at 9:45 UT we switched to LUCI to complete the night. 30 min of technical time were take to investigate a critical problem with the DX secondary, which is under investigation.

Night duration (12 degree - twilight) 3:30 - 11:10 UT = \* 7h \* \* 40m\*

Observing time: 7 h 00 min (92%)\*

Weather time loss: 0 h 00 min (0%)\*

Technical time loss: 0 h 40 min (8%)\*

Shark-VIS time loss: 0 h 00 min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
Bellazzini	44043885671890874 88	PEPSI 1+2	PFU CD3-6	1.22/0.61	DIMM<~1" SNR 130-140 on CD3-6 <b>completed</b>
Bellazzini	44258546762974231 04	PEPSI 1+2	PFU CD3-6	0.5/0.5	DIMM<~1" SNR 96-131 on CD3-6 <b>completed</b>
Vito	J1411	LBCb+r	rY	0.25+0.25	<b>completed</b>

Vito	J1429	LBCb+r	ri	0.25+0.25	seeing=0.85 -0.6 (blue and red) = completed =
Vito	J1429	LBCb+r	rz	0.12+0.12	seeing=0.9, (16/30 , some images with double structure stars)
Maiorano	eeGRB190719C	LBCb+r	r+i	0.2+0.2	seeing = 0.6 (completed)
Maiorano	eeGRB190719C	LBCb+r	g+z	0.2+0.2	seeing = 0.9 (blue), 0.75 (red), few blue images are elongated
Telluric	HD184856	LUCI-1	zjSpec, HKspec		telluric for HD184856
Giannini	gaia23dhi	LUCI-1	zjSpec, HKspec	0.25hr+0.25 hr	seeing = 0.6"
CALIB	arc,flats	LUCI-1			

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1WON7BLp8xKS5vmNk5CB0ScztTMivJV5F/view?usp=sharing>

and log from Jennifer Power:

<https://drive.google.com/file/d/1GcvLIHhniq24E8ql4V5zrul3i4wY2Cr/view?usp=sharing>

## INAF queue observing, 2024 June 10 - June 11

Observer: Felice Cusano, Ester Marini

Support: Alexander Becker

Telescope operator: Steve Allanson

Instrument: LBC, SHARK-NIR

### Summary

These observations have been performed in C-19 mode by Ester Marini and Felice Cusano. At sunset sky is clear, we start with LBC. SHARK-NIR takes the telescope at 6:25UT until the end of the night.

Night duration (12 degree - twilight) 3:30 - 11:10 UT = \* 7h\* \* 40m\*

Observing time: 2h 55min (38%)\*

Weather time loss: 0 h 00 min (0%)\*

Technical time loss: 0 h 0 min (%)\*  
 Shark-NIR time loss: 4 h 45 min (62%)\*  
 Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Vito	J1429	LBC-BINO	r ; z	1.25h + 1.25h	done rz_1 and rz_2, done rz_3_short1, good seeing

Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1qskGb4nap\\_AsGSapenIsACNCWoo5IA\\_X/view?usp=sharing](https://drive.google.com/file/d/1qskGb4nap_AsGSapenIsACNCWoo5IA_X/view?usp=sharing)

and log from Alexander Becker:

<https://drive.google.com/file/d/1IYyaRak6oPGwhZY7PCK675Qbmlm65z0F/view?usp=sharing>

## INAF queue observing, 2024 June 11 - June 12

Observer: Felice Cusano, Andrea Rossi  
 Support: Alexander Becker  
 Telescope operator: David Huerta  
 Instrument: LBC, LUCI

### Summary

These observations have been performed in C-19 mode by Andrea Rossi and Felice Cusano. At sunset sky is clear, we start with LBC. We do not have a secondary mirror on the right side, for safety reasons a cover was put on the DX mirror. We switch to LUCI1 at 09:45 and use it up to the end of the night.

Night duration (12 degree - twilight) 3:30 - 11:10 UT = \* 7h\* \* 40m\*

Observing time: 7 h 40 min (100%)\*

Weather time loss: 0 h 00 min (0%)\*

Technical time loss: 0 h 0 min (0%)\*

Shark-NIR time loss: 0 h min (0%)\*

Data Summary

Project_R UN	Objects	Instrum ent	Configurati on	ExpTime /Time_tot	Notes
Maiorano	GRB2404 14	LBC-BIN O	r ; z	0.73+0.73h/0.66+0 .66h	some images in the blue out of spec, toke 2+2 images more for bad IQ at beginning <b>completed</b>
Vito	J1429	LBC-BIN O	r ; z	0.25h + 0.25h	r+z <b>completed</b>

Vito	J1429	LBC-BIN O	r ; Y	1h + 1h	r+Y completed repeated last script for bad IQ
Maiorano	GRB 240529A	LBC-BIN O	r ; i	0.66h + 0.66h	FWHM<1" completed
Maiorano	GRB 240529A	LUCI-1	J	0.66h + 0.66h	FWHM<1" completed

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/19qollKK9ivQoH3SgF6H7MeNz4vCxltQR/view?usp=sharing>

and log from Alexander Becker:

<https://drive.google.com/file/d/15-Q1Wq4Rr5zA3pgDZa12bg7qtCIQo82K/view?usp=sharing>

## INAF queue observing, 2024 June 12 - June 13

Observer: Felice Cusano, Andrea Rossi

Support: Alexander Becker

Telescope operator: David Huerta

Instrument: LBC

### Summary

These observations have been performed in C-19 mode by Andrea Rossi and Felice Cusano. At sunset sky is clear, SHARK-NIR takes the telescope. They observed all the night.

Night duration (12 degree - twilight) 3:30 - 11:10 UT = \* 7h \* 40m\*

Observing time: 0h 0 min (0%)\*

Weather time loss: 0 h 00 min (0%)\*

Technical time loss: 0 h 0 min (0%)\*

Shark-NIR time loss: 7 h 40min (100%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
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Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1XWAYWYnPJgNdDamMCyDK19HHOQMCKuQV/view?usp=sharing>

and log from Alexander Becker:

<https://drive.google.com/file/d/1gdlbiK-XlclfpzpxowgU5s8CrMzwWVokX/view?usp=sharing>

## INAF queue observing, 2024 June 13 - June 14

Observer: Felice Cusano, Simona Paiano

Support: Alexander Becker

Telescope operator: David Huerta

Instrument: LUCI

## Summary

These observations have been performed in C-19 mode by Felice Cusano and Simona Paiano. At sunset sky is covered by clouds, T= 15°C, Hum=30%, Wind= 10m/s @180°, and 20% of rain. We are closed.

Night duration (12 degree - twilight) 3:30 - 11:10 UT = \* 7h\* \* 40m\*

Observing time: 0 h 0 min (0%)\*

Weather time loss: 7 h 40 min (0%)\*

Technical time loss: 0 h 00 min (0%)\*

Shark-NIR time loss: 0 h 00 min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
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Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1RIUXVschHqmlwiiHUcIO2kpNxVF0Qv9Mj/view?usp=sharing>

and log from Alexander Becker:

<https://drive.google.com/file/d/1Z8KikQECnpqufvPtKiq-PvxpNMAUCenM/view?usp=sharing>

## INAF queue observing, 2024 September 22 - September 23

Observer: Felice Cusano, Andrea Rossi Support: Jennifer Power

Telescope operator: Josh Williams

Instrument: LUCI2, PEPSI-R

## Summary

These observations have been performed in C-19 mode by Felice Cusano and Andrea Rossi. At sunset sky is clear, we can open. We can use only the right side due to the problem with ASM. Starting with LUCI2. After about 50 minutes we switch to PEPSI due to the problem in the central wavelength of the G200.

Observed all night with PEPSI right side only.

Night duration (12 degree - twilight) 2:14 - 12:14 UT = \* 10h\* \* 00m\*

Observing time: 8 h 35 min (86%)\*

Weather time loss: 0 h 0 min (0%)\*

Technical time loss: 1 h 25 min (14%)\*

Shark-NIR time loss: 0 h 00 min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Ceccarelli 9	426842990000237132 8	PEPSI	D300 CD3-CD6	46 minutes	right side only, S/N=51 CD3
Ceccarelli 9	426768546192531814 4	PEPSI	D300 CD3-CD6	17 minutes	right side only,

					S/N=43 CD3
Ceccarelli 9	426767883049576665 6	PEPSI	D300 CD3-CD6	29 minutes	right side only, S/N=35 CD3
Ceccarelli 9	426843618350852659 2	PEPSI	D300 CD3-CD6	17 minutes X 2	right side only, S/N=25*1. 4 CD3
STD	HD 8634	PEPSI	D300 CD3-CD6	10sec	right side only, S/N=740 CD3 for Ceccarelli
STD	HD 192281	PEPSI	D300 CD3-CD5	1minute	right side only, S/N=260 CD3 for Bragaglia 14
STD	HD 192281	PEPSI	D300 CD1-CD4	1minute	right side only, S/N=128 CD1 for Bragaglia 14
Bragaglia 14	205129328986322572 8	PEPSI	D300 CD3-CD5	15 minutes	right side only, S/N= 22CD5
Bragaglia 14	205129328986322572 8	PEPSI	D300 CD3-CD5	60 minutes	right side only, S/N= 70CD5
STD	HD 192281	PEPSI	D300 CD3-CD5	1minute	right side only, S/N=250 CD3 for Bragaglia 14

Rainer 32	TOI 1516	PEPSI	D200 CD1-CD4	7.5minutes s X 2	right side only, S/N=20-80 *1.4 CD14
Rainer 32	TOI 1516	PEPSI	D200 CD2-CD5	15minutes	right side only, S/N=77-13 9 CD25
Rainer 32	TOI 1516	PEPSI	D200 CD3-CD6	15minutes	right side only, S/N=97-14 7 CD36
Rainer 32	TOI 2152	PEPSI	D200 CD1-CD4	20minutes X2	right side only, S/N=30-10 0 *1.4 CD14
Rainer 32	TOI 2152	PEPSI	D200 CD2-CD5	30minutes	right side only, S/N=52-15 8 CD25
Rainer 32	TOI 2152	PEPSI	D200 CD3-CD6	30minutes	right side only, S/N=95-15 1 CD36
Rainer 32	TOI 4137	PEPSI	D200 CD1-CD4	30minutes	right side only, S/N=34-14 0 CD14
Rainer 32	TOI 4137	PEPSI	D200 CD2-CD5	20minutes	right side only, S/N=70-13 0 CD25
Rainer 32	TOI 4137	PEPSI	D200 CD3-CD6	20minutes	right side only, S/N=100-1 40 CD36
Bragaglia 2	345117080978350028 8	PEPSI	D300 CD1-CD4	145s x2=4.8min	right side only, S/N=40-11 0

STD	Hip 9690	PEPSI	D300 CD1-CD4	12sec	right side only, S/N=90-16 0 CD14 for Bragaglia2
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Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1Qw6GefAZuCsQB9dh-rqI0qSLKWMRwKDv/view?usp=sharing>

log from J. Power:

[https://docs.google.com/document/d/16whREoKJkj3PkIui-x5rEDvQGSR41\\_dNtTInmNwPI5s/edit?usp=sharing](https://docs.google.com/document/d/16whREoKJkj3PkIui-x5rEDvQGSR41_dNtTInmNwPI5s/edit?usp=sharing)

PEPSI log:

[https://drive.google.com/file/d/1XQeLZXAJuLve9-76DWO3pGZTg8wqe-n\\_/view?usp=sharing](https://drive.google.com/file/d/1XQeLZXAJuLve9-76DWO3pGZTg8wqe-n_/view?usp=sharing)

Summary of MODS calib files:

[https://drive.google.com/file/d/1\\_nkZDIF\\_eEQGcAJz6xZ6LnsHslQu8xr4/view?usp=sharing](https://drive.google.com/file/d/1_nkZDIF_eEQGcAJz6xZ6LnsHslQu8xr4/view?usp=sharing)

## INAF queue observing, 2024 September 23 - September 24

Observer: Andrea Rossi, Felice Cusano

Support: Jennifer Power

Telescope operator: Josh Williams

Instrument: LUCI2, PEPSI-R

### Summary

These observations have been performed in C-19 mode by Felice Cusano and Andrea Rossi.

At sunset sky is clear. Conditions are good we start observing with LUCI2. We can use only the right side due to the problem with ASM.

Night duration (12 degree - twilight) 2:14 - 12:14 UT = \* 10h\* \* 00m\*

Observing time: 9h 15min (92.5%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 0h 45min (7.5%)\*

Shark-NIR time loss: 0h 0min (0%)\*

Data Summary

Project_RU N	Objects	Instrume nt	Configurati on	ExpTime /Time_tot	Notes
STD	HIP 82710	LUCI2	zJ+HK200, 1"slit		for Signorini
Signorini 45	SDSSJ165043. 28	LUCI2	zJ200, 1"slit	1.2/2 hours	DIMM~1"
STD	HIP 110963	LUCI2	zJ+HK200, 1"slit		for Signorini
Signorini 45	SDSSJ223819. 89	LUCI2	zJ200, 1"slit	0.5/0.5 hr	completed FWHM<1"

Signorini 45	SDSSJ223819.89	LUCI2	HK200, 1"slit	0.5/0.5 hr	completed FWHM<1"
STD	HIP116886	LUCI2	zJ+HK200, 1"slit		
Signorini 45	SDSSJ235644	LUCI2	zJ200, 1"slit	0.5h/0.5 hr	completed FWHM<1"
Signorini 45	SDSSJ235644	LUCI2	HK200, 1"slit	0.5h/0.5 hr	completed
Palazzi	HD2844	LUCI2	zJ200, 1"slit		telluric for Palazzi
Palazzi	ZTF24aaysowl	LUCI2	zJ200, 1"slit	0.93h/0.9 3h	completed
Palazzi	ZTF24aaysowl	LUCI2	imag, J	0.5h	completed
Rainer	TOI-4145	PEPSI	CD1-4, D200	0.55h	S/N=62 CD4 too low
Rainer	TOI-4145	PEPSI	CD2-5, D200	0.55h	S/N=106 CD5 ok completed
Rainer	TOI-4145	PEPSI	CD3-6, D200	0.55h	S/N=118 CD6 ok completed
Rainer	TOI-4145	PEPSI	CD1-4, D200	0.55h	second exp for low S/N

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1AnH8FUPICAubCA6-xnhJN-Wm-iq6bl2h/view?usp=sharing>

log from J. Power:

<https://drive.google.com/file/d/1hjgZ-NhJ3eUAIKbS7KaG1DFIHfRgtQ7r/view?usp=sharing>

PEPSI log:

[https://drive.google.com/file/d/1csD\\_\\_y2A5cVb0wlyvJNv5kw9HBK0hB0Q/view?usp=sharing](https://drive.google.com/file/d/1csD__y2A5cVb0wlyvJNv5kw9HBK0hB0Q/view?usp=sharing)

Summary of MODS calib files:

[https://drive.google.com/file/d/1W\\_UxLb\\_z8l1C3AOTsu5xuDvyW9wZWMo2/view?usp=sharing](https://drive.google.com/file/d/1W_UxLb_z8l1C3AOTsu5xuDvyW9wZWMo2/view?usp=sharing)

Summary of LUCI calib files:

[https://drive.google.com/file/d/12AYFMXLRB\\_TWa5PwjrT7uvUrA4RQZIVU/view?usp=sharing](https://drive.google.com/file/d/12AYFMXLRB_TWa5PwjrT7uvUrA4RQZIVU/view?usp=sharing)

Summary of LUCI science files:

<https://drive.google.com/file/d/1junD3qGgmi36mNLGEWpCqrylB5KoQB-L/view?usp=sharing>

## INAF queue observing, 2024 September 24 - September 25

Observer: Felice Cusano, Andrea Rossi

Support: Jennifer Power

Telescope operator: Steve Allanson, Riccardo Ansaldi

Instrument: LUCI2, PEPSI-R

## Summary

These observations have been performed in C-19 mode by Felice Cusano and Andrea Rossi. At sunset sky is clear. Conditions are good we start observing with MODS2. Seeing at beginning of the night is around 2", we observe backup programs. We can use only the right side due to the problem with ASM.

Night duration (12 degree - twilight) 2:14 - 12:14 UT = \* 10h\* \* 00m\*

Observing time: 8h 10min (82%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 1h 50min (18%)\*

Shark-NIR time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
STD	BD+28	MODS2	dual/red/blue grating		standard for all programs
Grazian	Q937816717	MODS2	dual grating	0.2h	completed
Grazian	Q948266288	MODS2	dual grating	0.2h	completed
Grazian	Q953827878	MODS2	dual grating	0.27h	completed
Izzo 22	SN_EUC1	MODS2	dual grating	1h	FWHM~1.5"
Izzo 22	SN_EUC1	MODS2	ugriz ima	4min	FWHM~1.5" z not good
Palazzi 24	ZTF24aaysowl	MODS2	dual grating	0.3h	FWHM~1"
Ighina 39	eRASSJ0312-13	MODS2	dual grating	1.15h/2.3	FWHM ~1.2"
Grazian	Q1496561377	MODS2	dual grating	0.17h	completed
STD	G191	MODS2	dual/red/blue grating		standard for all programs

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1ubeLEI0gdVr2yUC4aMvlJyLjmlbiSy22/view?usp=sharing>

log from J. Power:

<https://drive.google.com/file/d/1w1BvMTSGAEeKOjWWapf7iAenL56bUxN4/view?usp=sharing>

PEPSI log: none

Summary of MODS calib files:

[https://drive.google.com/file/d/15Fj6YqArZowCXObRL6o00\\_8MvkNNErtI/view?usp=sharing](https://drive.google.com/file/d/15Fj6YqArZowCXObRL6o00_8MvkNNErtI/view?usp=sharing)

Summary of LUCI calib files:

<https://drive.google.com/file/d/1n5D96Q1mgcdhMMVHYzJIOS0YGbYqryrf/view?usp=sharing>

Summary of MODS science files:

<https://drive.google.com/file/d/1ppDqqPrwIW5MMfccqQX0iOZR4aohylJ6/view?usp=sharing>

INAF queue observing, 2024 September 25 - September 26

Observer: Andrea Rossi, Felice Cusano  
 Support: Jennifer Power  
 Telescope operator: Steve Allanson, Riccardo Ansaldi  
 Instrument: MODS2

## Summary

These observations have been performed in C-19 mode by Felice Cusano and Andrea Rossi. At sunset sky is clear. We start with MODS. We have been interrupted for dust particles around 5 UT. Then we open after 30 minutes.

We re-started with LBC but the seeing was too bad to perform the high priority program. We can use only the right side due to the problem with ASM.

Night duration (12 degree - twilight) 2:14 - 12:14 UT = \* 10h\* \* 00m\*

Observing time: 8h 25min (84%)\*

Weather time loss: 0h 50min (8.4%)\*

Technical time loss: 0h 45min (7.6%)\*

Shark-NIR time loss: 0h 0min (0%)\*

### Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_to_t	Notes
Mura 21	C2024E1	MODS2	dual grating 1.2"slit	0.5h	interrupted due to high seeing
Mura 21	SA112	MODS2	dual grating 1.2"slit		solar analog for Mura
STD	BD28	MODS2	dual-red-blue		ok red-grat: mods*29,32,34
Maiorano	GRB240910A	LBC-Bino	r,z	0.4h	seeing variable 1.5-2"
Rainer	TOI-4145	PEPSI-R	D200, CD1-4	0.55h	S/N(CD4)=55, seeing variable 1.2-1.7",some extinction
Rainer	TOI-4145	PEPSI-R	D200, CD2-5	0.55h	S/N(CD5)=70, seeing variable 1.2-1.7"
Rainer	TOI-4145	PEPSI-R	D200, CD3-6	0.55h	S/N(CD6)=, seeing

					variable 1.2-1.7"
Ceccarelli7	18937173306791495 68	PEPSI-R	D300, CD3-6	0.07 h	S/N(CD6)=14 2
Ceccarelli7	28016192661044272 64	PEPSI-R	D300, CD3-6	0.07 h	S/N(CD6)=16 5
Ceccarelli7	36926455491749952 0	PEPSI-R	D300, CD3-6	0.07 h	S/N(CD6)=18 0
Ceccarelli7	22329432923500576 00	PEPSI-R	D300, CD3-6	0.18 h	S/N(CD6)=14 5
Ceccarelli7	28190816066978848 00	PEPSI-R	D300, CD3-6	0.3 h	S/N(CD6)= 108
Ceccarelli7	32231981505574656	PEPSI-R	D300, CD3-6	0.07 h	S/N(CD6)= 158
Ceccarelli7	14268541064447001 6	PEPSI-R	D300, CD3-6	0.07 h	S/N(CD6)= 107
Ceccarelli7	18223618822190144 0	PEPSI-R	D300, CD3-6	0.07 h	S/N(CD6)= 315
Ceccarelli7	19513548684371238 4	PEPSI-R	D300, CD3-6	0.07 h	S/N(CD6)= 190
Ceccarelli7	37943380482046924 8	PEPSI-R	D300, CD3-6	0.47 h	S/N(CD6)= 124
Bragaglia2	34511806023088060 16	PEPSI-R	D300, CD1-4	0.15 h	S/N(CD4)=13 6, S/N(CD1)=51
Bragaglia2	34511809802659182 08	PEPSI-R	D300, CD1-4	0.15 h	S/N(CD4)=14 1, S/N(CD1)= 52
Bragaglia2	34511811520645822 72	PEPSI-R	D300, CD1-4	0.3 h	S/N(CD4)=18 2, S/N(CD1)= 53
Ceccarelli7	33747836095374259 2	PEPSI-R	D300, CD3-6	0.18 h	S/N(CD6)= 133
STD	HR1544	PEPSI-R	D200-300, CD123-456	h	standard for all gratings, D200 and D300

Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1i7swlpXFIMhHXnjo\\_odUc0xMdGVbtfEd/view?usp=sharing](https://drive.google.com/file/d/1i7swlpXFIMhHXnjo_odUc0xMdGVbtfEd/view?usp=sharing)

log from J. Power:

[https://drive.google.com/file/d/1OmSoh4PWaxgIRTwebWkhAyETjGIL8b6\\_/view?usp=sharing](https://drive.google.com/file/d/1OmSoh4PWaxgIRTwebWkhAyETjGIL8b6_/view?usp=sharing)

PEPSI log:

<https://drive.google.com/file/d/104Uw7UkRFKy1O48X-TuWz1IEltc2zdw8/view?usp=sharing>

Summary of MODS calib files:

[https://drive.google.com/file/d/1qpT32QMaZ5cubGZR86eXU2IPNmP0J9b\\_/view?usp=sharing](https://drive.google.com/file/d/1qpT32QMaZ5cubGZR86eXU2IPNmP0J9b_/view?usp=sharing)

Summary of LUCI calib files:

<https://drive.google.com/file/d/11ji38Yy4dO0ioBycx3ixNkP-DNH1wilc/view?usp=sharing>

Summary of MODS science files:

[https://drive.google.com/file/d/1ICsufnMi8OUv87q3hLqH9xsOXJi\\_QUih/view?usp=sharing](https://drive.google.com/file/d/1ICsufnMi8OUv87q3hLqH9xsOXJi_QUih/view?usp=sharing)

## INAF queue observing, 2024 September 26 - September 27

Observer: Andrea Rossi, Felice Cusano

Support: Alex Becker

Telescope operator: Steve Allanson

Instrument: LUCI2, LBC

### Summary

These observations have been performed in C-19 mode by Felice Cusano and Andrea Rossi.

At sunset sky is clear. We start with LUCI2. Around midnight we switch to LBC

We can use only the right side due to the problem with ASM.

Night duration (12 degree - twilight) 2:14 - 12:14 UT = \* 10h\* \* 00m\*

Observing time: 9 h 20 min (%)\*

Weather time loss: h min (%)\*

Technical time loss: 0 h 40 min (7 %)\*

Shark-NIR time loss: h min (%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_to	Notes
STD	HIP82710	LUCI2	zJHK 200		for Signorini
Signorini 45	SDSSJ165043.28	LUCI2	zJ 200 slit 1"	1.17/2h	2more for bad seeing completed
Signorini 45	SDSSJ165043.28	LUCI2	HK 200 slit 1"	1/2h	only 0.83h are ok
STD	HIP113269	LUCI2	zJHK 200 slit 1.5"		for Izzo

Izzo 22	SN_selfcal22	LUCI2	zJHK 200 slit 1.5"	0.8h	two spectra in HKspec not good for problem in cw
Vito 5	Slug_Nebula	LBC-BINO	U - z	0.2h	Uz completed,
Vito 5	Slug_Nebula	LBC-BINO	B - z	0.67h	Bz completed,
Vito 5	Slug_Nebula	LBC-BINO	g - z	0.4h	some images out of spec, but gz completed
Vito carryover	J030331	LBC-BINO	r - i	0.5h/3h	i completed, IQ <1"
Vito carryover	J030331	LBC-BINO	r - z	3/3h	z completed IQ< 1"

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1R9g4gqpToQZKAXAsYQf5ISkq6StRiyNs/view?usp=sharing>

log from A. Becker:

[https://drive.google.com/file/d/154vJa00IRjAm6FITBz7\\_6PYcRg7tyTEs/view?usp=sharing](https://drive.google.com/file/d/154vJa00IRjAm6FITBz7_6PYcRg7tyTEs/view?usp=sharing)

Summary of LUCI science files:

<https://drive.google.com/file/d/1s6142aKtrQPggQIFjB7ycL67P6KoMiwD/view?usp=sharing>

## INAF queue observing, 2024 September 27 - September 28

Observer: Felice Cusano, Ester Marini

Support: Alex Becker

Telescope operator: Steve Allanson

Instrument: MODS2, LBC

### Summary

These observations have been performed in C-19 mode by Felice Cusano and Ester Marini. At sunset sky is clear. We start with MODS2. We can use only the right side due to the problem with ASM.

Night duration (12 degree - twilight) 2:14 - 12:14 UT = \* 10h\* \* 00m\*

Observing time: 9h 36min (96%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 0h 24min (4%)\*

Shark-NIR time loss: 0h 0min (0%)\*

Data Summary

Project_RU N	Objects	Instrume nt	Configuratio n	ExpTim e /Time_t ot	Notes
Mura	C2024E1	MODS2	dualgrating, 1.2"	1.5h	seeing <1"

Mura	SA112	MODS2	dualgrating, 1.2"		solar analog
Bevacqua	12376632779280222 81	MODS2	red grating, 1.2"	0.65h	seeing 0.9" completed
Bevacqua	12376632779280222 81	MODS2	blue grating, 1.2"	0.65h	completed
Bevacqua	12376529447864240 04	MODS2	red grating, 1.2"	0.51hr	first exp was interrupted due to power bump at 530/660, seeing was ~0.5"
Bevacqua	12376529447864240 04	MODS2	blue grating, 1.2"	0.55hr	
Maiorano	GRB240825A	LBC		25mins	we sent the script only once instead of twice since we hit the AM limit, IQ <1.2"
Vito 2023B	J03303	LBC			only 20mins were good data
Bragaglia_2	Gaia DR3 34452349931800870 40	PEPSI		0.67hr	taken to exp because the S/N was too low after the first one. Second exp with S/N 186 on the red and 63 on the blue
Bragaglia_2	Gaia DR3 34512927524937262 08	PEPSI		0.27hr	taken twice due to low S/N. S/N of single exp are 94 on the and 65 on the blue
Bragaglia_2	Gaia DR3 34511725921893873 92	PEPSI		0.18hr	S/N 101 on the red, 58 on the blue

Bragaglia_2	Gaia DR3 34511947542225986 56	PEPSI	0.27hr	S/N 117 on the red, 70 on the blue
Bragaglia_2	Gaia DR3 34511917992841834 24	PEPSI	0.216hr	S/N 144 on the red and 58 on the blue
Bragaglia_2	Gaia DR3 34511953426360113 92	PEPSI	0.216hr	S/N 107 on the red and 58 on the blue
Bragaglia_2	Gaia DR3 34511943075460000 00	PEPSI	0.27hr	S/N 85 on the red, 61 on the blue, too low but no additional exp was taken because we were pointing to the east approaching sunrise
Ceccarelli_7	Gaia DR3 50164015856199193 6	PEPSI	0.22hr	S/N 73 on the red, 56 on the blue
Ceccarelli_7	Gaia DR3 55495310657175692 8	PEPSI	0.56hr	S/N 76 on the red, 58 on the blue

Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1yzwLB2qrDOCvmi\\_V9A1q7PN1x6gIEWj9/view?usp=sharing](https://drive.google.com/file/d/1yzwLB2qrDOCvmi_V9A1q7PN1x6gIEWj9/view?usp=sharing)  
log from A. Becker:

<https://drive.google.com/file/d/1CR0-euCvVxtfZjBPWJaTg-ag8GA4ksLY/view?usp=sharing>

Summary of MODS science files:

[https://drive.google.com/file/d/1Yad7dyt-gj4zj1DYGwggYyp-Bw\\_-DIV7/view?usp=sharing](https://drive.google.com/file/d/1Yad7dyt-gj4zj1DYGwggYyp-Bw_-DIV7/view?usp=sharing)

PEPSI log:

<https://drive.google.com/file/d/12wYaJZKVRFrLsh9O9QY5uQPdsBGzUvdl/view?usp=sharing>

## INAF queue observing, 2024 October 25 - October 26

Observer: Ester Marini, Felice Cusano

Support: Alex Becker

Telescope operator: Riccardo Ansaldi

Instrument: PEPSI, MODS1

## Summary

These observations have been performed in C-19 mode by Felice Cusano and Ester Marini.

At sunset sky is clear. We start with PEPSI. We can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:30 - 12:39 UT = \* 11h\* \* 09m\*

Observing time: 10h 29min (94%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 0h 40min (6%)\*

Shark-NIR time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_to t	Notes
Munaretto	C/2023 A3	PEPSI	D200/CD6-C D3	6mins	S/N = 73, 78 on CD3,CD6
Munaretto	C/2023 A3	PEPSI	D200/CD5-C D2	12mins	doubled the exp time, S/N=122,60 on CD5,CD2
Munaretto	C/2023 A3	PEPSI	D200/CD4-C D1	12mins	doubled the exp time, S/N=105,55 on CD4,CD1
STD	HR7950	PEPSI	D200/CD4-C D1		STD for Munaretto
STD	HR7950	PEPSI	D200/CD5-C D2		STD for Munaretto
STD	HR7950	PEPSI	D200/CD6-C D3		STD for Munaretto
STD	HR7950	PEPSI	D300/CD3-C D6		STD for Ceccarelli
Ceccarelli	Gaia DR3 419630403313453388 8	PEPSI	D300/CD3-C D6	17mins	S/N=54,73 on CD3,CD6, seeing 1"
Ceccarelli	Gaia DR3 419630073459978764 8	PEPSI	D300/CD3-C D6	17mins	S/N=53,58 on CD3,CD6, seeing 1"

Izzo	SN495	MODS1	dual ima	0.05hr	seeing on average <1.5"
Izzo	SN495	MODS1	dual grating	1hr/1.5hr	seeing 1.1" and 1.3" in the last exposure
Palazzi	ZTF24aaysowl	MODS1	dual grating	0.45h	
Standard	Feige 110	MODS1	dual-red grating		red & dual
Ighina	eRASSJ03-13	MODS1	red grating	1.15h	<b>completed</b>
Ighina	eRASSJ04-02	MODS1	red grating	2 h	<b>completed</b>
Vietri	J0747	MODS1	blue grating	1 h	1 out of 3 completed, blue grating
Standard	GD71	MODS1	blue grating		

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/14XmtnDK3OMO4fRjJdiyd8i6O0I-yrm4t/view?usp=sharing>

log from A. Becker:

<https://drive.google.com/file/d/1VwbCH8d7unReGdb2qZ0iKI7CMt6CQu8o/view?usp=sharing>

Summary of MODS calib files:

<https://drive.google.com/file/d/11ogahXfJ2x9DZmqnEHbnSODbrdKmpm5D/view?usp=sharing>

Summary of MODS science files:

<https://drive.google.com/file/d/1wUqXeJFT8wMvKau4v4saEtFkJIGj6rnO/view?usp=sharing>

## INAF queue observing, 2024 October 26 - October 27

Observer: Ester Marini, Felice Cusano

Support: Olga Kuhn

Telescope operator: Riccardo Ansaldi

Instrument: PEPSI, MODS1

### Summary

These observations have been performed in C-19 mode by Felice Cusano and Ester Marini. At sunset sky is clear. We start with PEPSI. We can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:30 - 12:39 UT = \* 11h\* \* 09m\*

Observing time: 10h 24min (93%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 0h 45min (7%)\*

Shark-NIR time loss: 0h 0min (0%)\*

## Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
Munaretto	C/2023 A3	PEPSI	D200/CD5-C D2	30mins	S/N=291,13 8 on CD5,CD2
Munaretto	C/2023 A3	PEPSI	D200/CD4-C D1	30mins	S/N=195,60 on CD4,CD1
Munaretto	C/2023 A3	PEPSI	D200/CD6-C D3	30mins	S/N =197 on CD6, high sky background on CD3
STD	HR7950	PEPSI	D200/CD4-C D1		STD for Munaretto
STD	HR7950	PEPSI	D200/CD5-C D2		STD for Munaretto
STD	HR7950	PEPSI	D200/CD6-C D3		STD for Munaretto
STD	HR7950	PEPSI	D300/CD6-C D3		STD for Ceccarelli
Maiorano	GRB241026	MODS1	dual grating	0.33hr	seeing 1.2" on average
Izzo	SN11	MODS1	dual ima	0.05hr	seeing 1.2"
Izzo	SN11	MODS1	dual grating	0.5/1.5hr	stopped at 2/3 exp of the first position, seeing 1.5" on average
Grazian	Q1112539242	MODS1	dual	0.2h	completed
Piconcelli	J0300-08	MODS1	dual	0.75h	completed
Vietri	J0747	MODS1	red grating	1 h	1 out 3 in red completed, seeing variable at

					first exposure
Bevacqua	123766409343211963 6	MODS1	dual grating	1 h	<b>completed</b>
Bevacqua	12376648697452300 95	MODS1	dual grating	0.73/2.25 h	two exp done, at 0 and +10"
calibration	slitless flat	MODS1	dual		

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1zDwOtULCpOIAE2MLoWkr01fx27-12TLP/view?usp=sharing>  
log from O. Kuhn:

<https://drive.google.com/file/d/1dT6iVDg1zxCn2FsZPkNRC5oITVI6NPpt/view?usp=sharing>

Summary of MODS calib files:

[https://drive.google.com/file/d/1\\_B-dGQ7MqZf34j3n3xLDwXjW1cjfWAPy/view?usp=sharing](https://drive.google.com/file/d/1_B-dGQ7MqZf34j3n3xLDwXjW1cjfWAPy/view?usp=sharing)

Summary of MODS science files:

[https://drive.google.com/file/d/1D-HLI8MMUJ4Ffe\\_cyQqAdEq7IJCaaBli/view?usp=sharing](https://drive.google.com/file/d/1D-HLI8MMUJ4Ffe_cyQqAdEq7IJCaaBli/view?usp=sharing)

## INAF queue observing, 2024 October 27 - October 28

Observer: Andrea Rossi, Ester Marini

Support: Olga Kuhn

Telescope operator: Riccardo Ansaldi

Instrument: LBC, PEPSI

### Summary

These observations have been performed in C-19 mode by Andrea Rossi and Ester Marini.

At sunset the sky is clear, just a few cirrus in the north. We start with LBC. We had a small issue with TMS and we started without it, but it has been recovered at 05:20 UT.

We can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:30 - 12:39 UT = \* 11h\* \* 09m\*

Observing time: 10h 27min (93.3%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 0h 42min (6.7%)\*

Shark-NIR time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_to t	Notes
CALIBRATION	SKYFLATS	LBCb+r	rVYR		rY not completed
Carbognari	2024 PT5	LBCb+r			both twice and normal tracking speed

Maiorano	GRB241026A	LBCb+r	griz	0.6hr	DIMM ~1"
Maiorano	GRB241025A	LBCb+r	riz	1.3hr	DIMM ~1.1-1.2"
Maiorano	EP241026b	LBCb+r	gr	0.4hr	DIMM ~1.1-1.2"
Telluric	HIP9690	PEPSI		D300/all CDs	S/N=73,117 on CD1,CD4
Bragaglia_2	Gaia DR3 3451194307546000 000	PEPSI	0.2hr/0.1hr	D300/CD 1-CD4	S/N=56,102 on CD1,CD4. Took another exp since the S/N on the first one was <100
Bragaglia_2	Gaia DR3 3451181323863324 800	PEPSI	0.12hr/0.06h r	D300/CD 1-CD4	we took 2 exposures since the S/N of only 1 exp on the blue was too low (~40)
Bragaglia_2	Gaia DR3 3451175512767145 088	PEPSI	0.2hr/0.1hr	D300/CD 1-CD4	S/N=81, 171 on CD1 and CD4, we doubled the exp time due to clouds
Bragaglia_2	Gaia DR3 3451182045417801 216	PEPSI	0.16hr/0.08h r	D300/CD 1-CD4	we took 2 exp due to clouds, S/N on the blue was 40 on the first one
Bragaglia_2	Gaia DR3 3451181839259368 832	PEPSI	0.2hr/0.1hr	D300/CD 1-CD4	S/N= 54, 183 on CD1,CD4, we doubled the exp time due to clouds
Bragaglia_2	Gaia DR3 3451180911546448 768	PEPSI	0.14hr/0.07h r	D300/CD 1-CD4	S/N=44,136 on CD1,CD4, we doubled the exp time due to clouds
Bragaglia_2	Gaia DR3 3451181873619102 208	PEPSI	0.16hr/0.08h r	D300/CD 1-CD4	S/N=44,133 on CD1,CD4, we doubled the exp

					time due to clouds
Bragaglia_2	Gaia DR3 3451180838527642 496	PEPSI	0.16hr/0.08hr	D300/CD 1-CD4	S/N=41,147 on CD1,CD4, we doubled the exp time due to clouds
Bragaglia_2	Gaia DR3 3451204615466584 832	PEPSI	0.2hr/0.2hr	D300/CD 1-CD4	S/N=66,126 on CD1,CD4, we doubled the exp time due to clouds
Ceccarelli_7	Gaia DR3 3988972909366682 88	PEPSI	0.56/0.56hr	D300/CD 3-CD6	S/N=67,91 on CD3,CD6
Ceccarelli_7	Gaia DR3 3160714468040914 816	PEPSI	0.05/0.05hr	D300/CD 3-CD6	S/N=149,224 on CD3,CD6
Ceccarelli_7	Gaia DR3 1084559472229804 928	PEPSI	0.025/0.05hr	D300/CD 3-CD6	S/N=71,110 on CD3,CD6, reduced exp time since the S/N was already fine
Ceccarelli_7	Gaia DR3 3457623740445063 808	PEPSI	0.07/0.14hr	D300/CD 3-CD6	S/N=60,97 on CD3,CD6, reduced exp time since the S/N was already fine
Telluric	HIP9690	PEPSI		D300/all CDs	
Ceccarelli_7	Gaia DR3 6995609102155438 08	PEPSI	0.07/0.14hr	D300/CD 3-CD6	S/N=60,82 on CD3,CD6, reduced exp time since the S/N was already fine
Ceccarelli_7	Gaia DR3 5920335478049918 72	PEPSI	0.07/0.14hr	D300/CD 3-CD6	S/N=68,103 in CD3, CD6, reduced exp time since the

					S/N was already fine
Bragaglia_2	Gaia DR3 3451204718546726 784	PEPSI	0.1/0.1hr	D300/CD 1-CD4	S/N=57,116 on CD1,CD4
Bragaglia_2	Gaia DR3 3451206887508541 184	PEPSI	0.1/0.1hr	D300/CD 1-CD4	S/N=45,85 in CD1 and CD4
Ceccarelli_7	Gaia DR3 8340560587414144 00	PEPSI	0.02/0.06hr	D300/CD 3-CD6	S/N=49,55 in CD3, CD6, stopped earlier due to fire alarm, but S/N acceptable
Bragaglia_2	Gaia DR3 3451201974065974 400	PEPSI	0.08/0.1hr	D300/CD 1-CD4	S/N=44, 121 in CD1 and CD4
Bragaglia_2	Gaia DR3 3450980525550635 264	PEPSI	0.06/0.06hr	D300/CD 1-CD4	S/N=43,139 in CD1 and CD4
Bragaglia_2	Gaia DR3 3451009727031458 560	PEPSI		D300/CD 1-CD4	stopped earlier for high background, <b>need to re-observe this target</b>
CALIBRATI ON		MODS1			

Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1HepoJf22LnrD7ojWZc-P\\_CPWR69fXt-6/view?usp=sharing](https://drive.google.com/file/d/1HepoJf22LnrD7ojWZc-P_CPWR69fXt-6/view?usp=sharing)

and log from O. Kuhn at :

<https://drive.google.com/file/d/1eWgtJQMd94D2cUI2ncb7DcDwr3TIBk9d/view?usp=sharing>

Summary of MODS calib files:

<https://drive.google.com/file/d/1mQQj86LhPuGt3vshrdWvovm8m1hqYv-n/view?usp=sharing>

Summary of LBC science file:

<https://drive.google.com/file/d/1MkLcJu0eQBAfUyd07c6CtDqEABtERQOz/view?usp=sharing>

Summary of LBC calib file:

[https://drive.google.com/file/d/1hG7cQXuKxw\\_S7bvQFPZs1-xOBisRW8lx/view?usp=sharing](https://drive.google.com/file/d/1hG7cQXuKxw_S7bvQFPZs1-xOBisRW8lx/view?usp=sharing)

**INAF queue observing, 2024 October 28 - October 29**

Observer: Felice Cusano, Andrea Rossi

Support: Jennifer Power  
Telescope operator: Riccardo Ansaldi  
Instrument: LBC

## Summary

These observations have been performed in C-19 mode by Felice Cusano and Andrea Rossi.  
At sunset sky is clear. We start with LBC. For the gregorian instruments, we can use only the left side due to delay in the installation of the DX adSec.

Observed the DDT of Carbognani, then closed at 03:24 for high wind.

Night duration (12 degree - twilight) 1:30 - 12:39 UT = \* 11h\* \* 09m\*

Observing time: 1 h 20 min (12%)\*

Weather time loss: 9h 29min (85%)\*

Technical time loss: 0h 20min (3%)\*

Shark-NIR time loss: 0 h 0min (%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Carbognani	2024PT5	LBC-Bino	B,V - R, I		3x18x5s, sidereal tracking

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1SFYeE4pWrrwYkNDaSC9H1b9b6ETjGk4f/view?usp=sharing>  
log from J. Power :

[https://drive.google.com/file/d/131\\_SvE5rI7oDuAYg\\_-8Y93by612RokrC/view?usp=sharing](https://drive.google.com/file/d/131_SvE5rI7oDuAYg_-8Y93by612RokrC/view?usp=sharing)

Summary of LBC calibrations files:

<https://drive.google.com/file/d/1yemJjNs44CZpdDvxabiJSQunnRJifENN/view?usp=sharing>

Summary of LBC science files:

[https://drive.google.com/file/d/1wbPKk\\_nbOVd28pATpQcygPOG8dbi6rTk/view?usp=sharing](https://drive.google.com/file/d/1wbPKk_nbOVd28pATpQcygPOG8dbi6rTk/view?usp=sharing)

## INAF queue observing, 2024 November 08 - November 09

Observer: Felice Cusano, Ester Marini  
Support: Alexander Backer  
Telescope operator: Steve Allanson  
Instrument: LBC

## Summary

These observations have been performed in C-19 mode by Felice Cusano and Ester Marini.  
At sunset sky is clear. We start with LBC. For the gregorian instruments, we can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:20 - 12:49 UT = \* 11h\* \* 29m\*

Observing time: 11h 7min (96.8%)\*

Weather time loss: 0h 0min (%)\*

Technical time loss: 0h 22min (3.2%)\*

Shark-NIR time loss: 0 h 0min (%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
calibration	sky flats	LBC-Bino			U, Y; r, r; g, i
Giunta	Search_field	LBC-Bino	g, i-z	0.1h + 0.1h	13-10° elevation
Savaglio	<b>FRB20240114A</b>	LBC-Bino	g,z; r, i	0.2h + 0.2h	completed
Rossi	GW241102br	LBC-Bino	r, z	0.25h + 0.25h	completed
Maiorano	<b>GRB240825A</b>	LBC-Bino	r, z	0.83h + 0.83h	completed
Maiorano	EP241026b	LBC-Bino	g, r	0.67h +0.67h	completed
Vito	J030331	LBC-Bino	r, Y	0.5+0.5h r	r_Y_1.xml, r_Y_2.xml done, <b>target completed</b>
Cusano	1P/Halley	LBC-Bino	r, r	0.3+0.3h r	<b>FWHM out of spec 1.5-1.7"</b>
Vito	J0535	LBC-Bino	r, i	0.5+0.5h r	r_i_1.xml done, FWHM varying between 0.7-1.1", out of spec only in the last 2 images
Vito	J0535	LBC-Bino	r, i	0.5+0.5h r	r_i_2_short_1.xml, <b>FWHM out of spec, need to re-take this</b>
calibration	sky flats	LBC-Bino			Bz pa0, pa180, gi pa0, pa180

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1Yicveposh4Qzm7o6SoCeT2GTJfYmVhUf/view?usp=sharing>

log from A. Becker :

<https://drive.google.com/file/d/1WiWkE1XrmUV3KN1gzxFIVfu-50UXSYkQ/view?usp=sharing>

Summary of LBC calibrations files:

[https://drive.google.com/file/d/1bnXOvQ4cCKsTlvs2Ku8xMPH5HWJZ97\\_/view?usp=sharing](https://drive.google.com/file/d/1bnXOvQ4cCKsTlvs2Ku8xMPH5HWJZ97_/view?usp=sharing)

Summary of LBC science files:

[https://drive.google.com/file/d/1MNxlfKRABpg\\_iZizuY9wHJWYN8GHrKQ3/view?usp=sharing](https://drive.google.com/file/d/1MNxlfKRABpg_iZizuY9wHJWYN8GHrKQ3/view?usp=sharing)

Summary of MODS calibrations files:

<https://drive.google.com/file/d/1F2mEQWUwIB8kTFQOPf60auwxWrDMD5cl/view?usp=sharing>

## INAF queue observing, 2024 November 09 - November 10

Observer: Ester Marini, Felice Cusano,  
Support: ALexander Backer  
Telescope operator: Steve Allanson  
Instrument: MODS1, LBC, PEPSI-SX

### Summary

These observations have been performed in C-19 mode by Felice Cusano and Ester Marini. At sunset sky is clear. We start with MODS. After two hours we switch to LBC and observed for about 2 hours. Then the temperature was too unstable to keep going all the night with LBC, so we decided to switch to PEPSI.

For the Gregorian instruments, we can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:20 - 12:49 UT = \* 11h \* 29m\*

Observing time: 10h 9min (89%)\*

Weather time loss: 0h 0min (%)\*

Technical time loss: 1h 20min (11%)\*

Shark-NIR time loss: 0 h 0min (%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
calibration	dual flat slitless	MODS			
Savaglio_30	FRB20240114A	MODS1	dual grating	1hr/1hr	seeing ~0.7"
STD	Feige110	MODS1	dual grating, red grating		
Savaglio_30	FRB20240114A	LBC bino	r, i	0.3+0.3hr	FWHM ~1.1", done the script 3 times
Maiorano_23	241030Aforchina	LBC bino	r,z	0.4hr+0.4hr	done *_1 and *_2 script, FWHM ~1", but during the last images DIMM had a jump up to 2.5"

Rainer	Gaia 2	PEPSI-SX	D200, CD14-CD25- CD36	0.625h	<b>completed</b>
Ripepi	341869793644495667 2	PEPSI-SX	D300, CD2-CD46	0.37h	<b>completed</b>
Ripepi	457599392117044224	PEPSI-SX	D300, CD2-CD46	0.5h	<b>completed</b>
Rainer	TOI 4145	PEPSI-SX	D200, CD1-CD5	0.41h	<b>completed</b>
Rainer	TOI 2154	PEPSI-SX	D200, CD123-CD45 6	0.62h	<b>completed</b>
Rainer	HAT-P-39	PEPSI-SX	D200, CD123-CD45 6	2h	<b>completed</b>
Bragaglia_2	345100972703145856 0	PEPSI-SX	D300, CD1-CD4	0.13h	<b>completed</b>
Rainer	TOI-1268	PEPSI-SX	D200, CD123-CD45 6	0.9h	seeing 1.5"-2", increased exp time for bad seeing, to check with PI

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/14yE7efreXLV0nJgbfmWEsd1tsTvWi4Qu/view?usp=sharing>

log from A. Becker :

[https://drive.google.com/file/d/1mO1wfPFyJJuA7qhHafbDJ\\_4kKu2gY2ZT/view?usp=sharing](https://drive.google.com/file/d/1mO1wfPFyJJuA7qhHafbDJ_4kKu2gY2ZT/view?usp=sharing)

Summary of MODS calibrations files:

[https://drive.google.com/file/d/1jp9zwWBjwM4tjs\\_Ke4bHD5aMDVdoU\\_vB/view?usp=sharing](https://drive.google.com/file/d/1jp9zwWBjwM4tjs_Ke4bHD5aMDVdoU_vB/view?usp=sharing)

Summary of MODS science files:

<https://drive.google.com/file/d/1JQpLMeVpu6Nn3uIH3nSSxoT-GTQped/view?usp=sharing>

Summary of LBC science files:

<https://drive.google.com/file/d/1HvWxJFGhXUvWb3MCG2yY4iIBxFEtz8Su/view?usp=sharing>

Summary of LBC calibrations files:

[https://drive.google.com/file/d/1\\_QrAuShdVH9FbMqAez7qxlyZAcFcq5Eh/view?usp=sharing](https://drive.google.com/file/d/1_QrAuShdVH9FbMqAez7qxlyZAcFcq5Eh/view?usp=sharing)

**INAF queue observing, 2024 November 10 - November 11**

Observer: Ester Marini, Felice Cusano,

Support: ALlexander Backer

Telescope operator: Steve Allanson  
Instrument: PEPSI

## Summary

These observations have been performed in C-19 mode by Andrea Rossi and Ester Marini.

At sunset some cirrus are passing by, but we can open and start with PEPSI.

For the gregorian instruments, we can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:20 - 12:49 UT = \* 11h\* \* 29m\*

Observing time: 7h 48min (67.9%)\*

Weather time loss: 3h 2min (26.4%)\*

Technical time loss: 0h 39min (5.7%)\*

Shark-NIR time loss: 0 h 0min (%)\*

### Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
STD	HR 7950	PEPSI PFU	CD36		
Ceccarelli_7	176628502823484057 6	PEPSI PFU	CD36	0.36h/0.36 h	SNR 62/83 w cirrus
Ceccarelli_7	177204887864164748 8	PEPSI PFU	CD36	0.06h/0.06 h	SNR 68/83 w cirrus
Ceccarelli_7	179508598370605696 0	PEPSI PFU	CD36	0.06h/0.06 h	SNR 57/67 w cirrus
Ceccarelli_7	179930264515909376 0	PEPSI PFU	CD36	0.36h/0.36 h	SNR 61/90 w cirrus
Ceccarelli_7	185216867175449088 0	PEPSI PFU	CD36	0.14/0.14h	SNR 80/100 w cirrus
Ceccarelli_7	195129569661607104 0	PEPSI PFU	CD36	0.27/0.36h	SNR 60/80 w cirrus
Ceccarelli_7	184081910041621491 2	PEPSI PFU	CD36	0.05/0.06h	SNR 70/80 w cirrus
Ceccarelli_7	197409424202307084 8	PEPSI PFU	CD36	0.45/0.9h	SNR 50/80 w cirrus

Ceccarelli_7	196704424217978470 4	PEPSI PFU	CD36	0.27/0.36h	SNR 65/90 w cirrus
Ceccarelli_7	223721531163821657 6	PEPSI PFU	CD36	0.14/0.14h	SNR 70/80 w cirrus
Ceccarelli_7	195925426671141721 6	PEPSI PFU	CD36	0.9/0.9h	SNR 50/70 w cirrus
STD	HR 718	PEPSI PFU	CD36		
Ceccarelli_7	403925323252033920	PEPSI PFU	CD3-CD6	0.7/0.9hr	S/N 74/103 w cirrus
Ceccarelli_7	218993686573781504	PEPSI PFU	CD3-CD6	0.7/0.9hr	S/N 61/93 w cirrus
Ceccarelli_7	286355163367453312	PEPSI PFU	CD3-CD6	0.45/0.9hr	S/N 61/88 w cirrus
Ripepi	845159992310748672	PEPSI PFU	CD2-CD4	0.5hr/0.6hr	stoppe d earlier due to clouds (we lost the star), S/N 53/42. Still have to do CD2-C D6
Ceccarelli_7	993573343139591936	PEPSI PFU	CD3-CD6	0.45/0.9 hr	S/N 56/67 w clouds
Ceccarelli_7	781931511003780096	PEPSI PFU	CD3-CD6	0.02/0.05 hr	S/N 61/72

					w clouds
Ceccarelli_7	397165734496189427 2	PEPSI PFU	CD3-CD6	0.05/0.05 hr	S/N 61/68 w clouds
Ceccarelli_7	779616592350301952	PEPSI PFU	CD3-CD6	0.55/1.1 hr	S/N 73/104 w clouds

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1Eq1Dt8Pq6mIKRdkJgJKDAJvxEZc5DJdC/view?usp=sharing>  
log from A. Becker :

<https://drive.google.com/file/d/1ncr2LqF2xWD7QO8Pedi3hx6q5LhVSHUn/view?usp=sharing>

## INAF queue observing, 2024 November 11 - November 12

Observer: Felice Cusano, Andrea Rossi

Support: Alexander Backer

Telescope operator: Steve Allanson

Instrument: LUCI1, PEPSI-SX, MODS-1

### Summary

These observations have been performed in C-19 mode by Andrea Rossi and Ester Marini.

At sunset some cirrus are passing bye, but we can open and start with LUCI1.

Switch to PEPSI at 3:50 for bad seeing. Switch to MODS at 11 UT.

For the gregorian instruments, we can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:20 - 12:49 UT = \* 11h\* \* 29m\*

Observing time: 11h 18min (98%)\*

Weather time loss: 0h min (0%)\*

Technical time loss: 0h 11min (1.4%)\*

Shark-NIR time loss: 0 h 0min (%)\*

Data Summary

Project_RU N	Objects	Instrume nt	Configurati on	ExpTim e /Time_t ot	Notes
Nesci	XTEJ1901p014	LUCI1	K imag	0.6h	some clouds during last exposures
Telluric	BD+35 4512	LUCI1	G200,zJspec -HKspec		telluric for Trefoloni

Trefoloni	J223450	LUCI1	G200,zJspec -HKspec	0.5h	
Telluric	HIP13917	LUCI1	G210,K		telluric for Tozzi
Ripepi	2694868747315735 168	PEPSI-S X	D300, CD2-4	0.62h	<b>completed</b>
Ripepi	2694868747315735 168	PEPSI-S X	D300, CD2-6	0.62h	<b>completed</b>
Ripepi	1885629426224489 728	PEPSI-S X	D300, CD2-4	0.58h	<b>completed</b>
Ripepi	1885629426224489 728	PEPSI-S X	D300, CD2-6	0.58h	<b>completed</b>
Ripepi	2798793383782221 696	PEPSI-S X	D300, CD2-4	0.61h	<b>completed</b>
Ripepi	2798793383782221 696	PEPSI-S X	D300, CD2-6	0.64h	<b>completed</b>
Rainer	TOI-4087	PEPSI-S X	D200, CD1-4	1h	SNR 60/120 <b>completed</b>
Rainer	TOI-4087	PEPSI-S X	D200, CD2-5	1h	SNR 80/160 <b>completed</b>
Rainer	TOI-4087	PEPSI-S X	D200, CD3-6	1h	SNR 125/159 <b>completed</b>
Vietri carryover	J0747+2739	MODS1	blue grating 0.6"slit	1h	
STD	GD71	MODS1	blue grating		for Vietri

Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1G\\_g86LQ8DkJJyM8OR00M0j2kc9-doAe8/view?usp=sharing](https://drive.google.com/file/d/1G_g86LQ8DkJJyM8OR00M0j2kc9-doAe8/view?usp=sharing)  
log from A. Becker :

[https://drive.google.com/file/d/1DXFsnmmFu46yutkkglq3QW3K-LUP4\\_z1/view?usp=sharing](https://drive.google.com/file/d/1DXFsnmmFu46yutkkglq3QW3K-LUP4_z1/view?usp=sharing)  
which includes the PEPSI summary file

Summary of LUCI calibrations files:

<https://drive.google.com/file/d/1g6HDJIAz66DVEydlr3kJIYmFGqxp8MH/view?usp=sharing>

Summary of LUCI science files:

[https://drive.google.com/file/d/1XcA4f7KpCKCRmVskkajElk\\_Rt9xgSuA2/view?usp=sharing](https://drive.google.com/file/d/1XcA4f7KpCKCRmVskkajElk_Rt9xgSuA2/view?usp=sharing)

Summary of MODS calibrations files:

<https://drive.google.com/file/d/1NRcjL0eSpTlueeYJ7q19DQbRkRM8AHX9/view?usp=sharing>

Summary of MODS science files:

<https://drive.google.com/file/d/1uhVIntoMb1ygYmGvOrlGyrUTWLhdz2ij/view?usp=sharing>

**INAF queue observing, 2024 November 12 - November 13**

Observer: Andrea Rossi, Ester Marini  
 Support: Alexander Backer  
 Telescope operator: David Gonzalez Huerta  
 Instrument: LUCI

## Summary

These observations have been performed in C-19 mode by Andrea Rossi and Ester Marini. At sunset the Sky is clear and we open, but we had to close immediately because of wind gusts above limits. We open at 5:00 UT and start with LUCI. For the gregorian instruments, we can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:20 - 12:49 UT = \* 11h\* \* 29m\*

Observing time: 7h 49min (68%)\*

Weather time loss: 3h 40min (32%)\*

Technical time loss: h min (0%)\*

Shark-NIR time loss: h min (0%)\*

### Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
Telluric	HIP 13917	LUCI 1	zJ+HK200 1"slit		for Trefoloni J014628
Trefoloni_46	J014628	LUCI1	zJ+HK200 1"slit	2hr/1hr	repeated the script twice due to bad seeing (up to 2.5")
Telluric	HIP 13917	LUCI 1	zJ+HK200 1"slit		for Trefoloni J014628, we retake this since we did 2hr of science
Telluric	HIP 43018	LUCI 1	zJ+HK200 1"slit		for Trefoloni J083157
Trefoloni_46	J083157	LUCI1	zJ+HK200 1"slit	1hr/1hr	seeing variable between 1 and 1.5"
Telluric	HIP 30155	LUCI 1	zJ+HK200 1"slit		for Signorini J074217
Signorini_45	J074217	LUCI1	zJ200 1"slit	1hr/2hr	seeing <1"
Signorini_45	J074217	LUCI1	HK200 1"slit	0.67hr/2hr	seeing <1", stopped at 8/12 exposures due to high background

Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/1I3ucwPBjIS5ligQoNCDL-zILYllap\\_yS/view?usp=sharing](https://drive.google.com/file/d/1I3ucwPBjIS5ligQoNCDL-zILYllap_yS/view?usp=sharing)

log from A. Becker :

<https://drive.google.com/file/d/1Q2kWPJGcBJl3xHnkd77p1zX4KvH13xeZ/view?usp=sharing>

Summary of LUCI calibration files:

<https://drive.google.com/file/d/1pWeqyaM10XsDPo2VeJzRq3SfUW4o-dWd/view?usp=sharing>

Summary of MODS calibration files:

[https://drive.google.com/file/d/1RHSmLQtCQfcCAr2gZvKOxx0zUdn\\_duMU/view?usp=sharing](https://drive.google.com/file/d/1RHSmLQtCQfcCAr2gZvKOxx0zUdn_duMU/view?usp=sharing)

## INAF queue observing, 2024 November 13 - November 14

Observer: Felice Cusano, Ester Marini

Support: Alexander Backer

Telescope operator: David Gonzalez Huerta

Instrument: PEPSI-SX, LUCI1

### Summary

These observations have been performed in C-19 mode by Felice Cusano and Ester Marini. At sunset the Sky is clear, but we can not open for a technical issue. Opening at 2:30, starting with PEPSI.

We switch to LUCI1 at 04:03.

For the gregorian instruments, we can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:20 - 12:49 UT = \* 11h\* \* 29m\*

Observing time: 10h 14min (89.1%)\*

Weather time loss: 0h 0min (0%)\*

Technical time loss: 1h 15min (10.9%)\*

Shark-NIR time loss: 0h 0min (0%)\*

Data Summary

Project_R UN	Objects	Instrument	Configuration	ExpTime/Time_tot	Notes
Bragaglia_14	2051105101578548 480	PEPSI-S X	D300, CD3-5	0.5h/0.5 h	<b>completed</b>
Bragaglia_14	2051105101578548 480	PEPSI-S X	D300, CD1-4	0.5h/0.5 h	<b>completed</b>
Tozzi	HIP13917	LUCI1	G210,K		
Tozzi	9io9	LUCI1	G210, K	4h/4h	fwhm=0.6" <b>completed</b>
Tozzi	HIP13917	LUCI1	G210,K		we took the telluric again since the observation of the target lasted more that 4 hours

Signorini_4 5	HIP 30155	LUCI 1	zJ+HK200 1"slit		Telluric for J074217
Signorini_4 5	J074217	LUCI1	zJ200 1"slit	1hr/2hr	images rotated by 90degrees (#0083-#0094) due to an issue in the readout software, but data are good. Seeing ~0.5". <b>zJspec completed</b> (we took 1hr during the previous night)
Signorini_4 5	J074217	LUCI1	HK200 1"slit	1.4hr/2hr	seeing on average ~0.8". <b>HKspec completed</b> (we took 0.67hr during the previous night)
Signorini_4 5	HIP 30155	LUCI 1	zJ+HK200 1"slit		Telluric for J074217, took again since the observation lasted more than 2hours

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1I2JpeXKHeDw3gmc3zx6x5qcGFGAGVJGP/view?usp=sharing>  
log from A. Becker :

<https://drive.google.com/file/d/1jPJSKqis7nP65dXA52U-bz-HDi96FEZI/view?usp=sharing>

Summary of LUCI science files:

<https://drive.google.com/file/d/1AG3r2sZ9xsAHI134rBZxhMXyzmrr8OhE/view?usp=sharing>

Summary of LBC calibraton files:

[https://drive.google.com/file/d/1XJb9sYnRTOjqByJnkRk9C\\_yEeguMxn/view?usp=sharing](https://drive.google.com/file/d/1XJb9sYnRTOjqByJnkRk9C_yEeguMxn/view?usp=sharing)

## INAF queue observing, 2024 November 14 - November 15

Observer: Felice Cusano, Andrea Rossi

Support: Alexander Backer

Telescope operator: David Gonzalez Huerta

Instrument: PEPSI-SX, LBC

### Summary

These observations have been performed in C-19 mode by Felice Cusano and Andrea Rossi.

At sunset the Sky is clear, we open and we start with PEPSI. Good conditions. We switch to LBC at 04:25.

We close for high wind at

For the gregorian instruments, we can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:20 - 12:49 UT = \* 11h\* \* 29m\*

Observing time: 6 h 9 min (54%)\*

Weather time loss: 4 h 10 min (36%)\*

Technical time loss: 1 h 10 min (10%)\*

Shark-NIR time loss: 0h 0min (0%)\*

#### Data Summary

Project_RU N	Objects	Instrume nt	Configurati on	ExpTim e /Time_t ot	Notes
Ceccarelli_ 9	4267678864855546 368	PEPSI-S X	D300, CD3-6	0.72h	<b>completed</b> S/N=55 CD3
Bragaglia_1 4	2051105239017444 992	PEPSI-S X	D300, CD3-5	0.5h	<b>completed</b> S/N=55 CD3
Bragaglia_1 4	2051105239017444 992	PEPSI-S X	D300, CD1-4	0.5h	<b>completed</b> S/N=35 CD1
Bragaglia_1 4	HD192281	PEPSI-S X	D300, CD123-456		standard
Bragaglia_1 4	2051105307736990 336	PEPSI-S X	D300, CD3-5	0.5h	<b>completed</b> S/N=68 CD3
Bragaglia_1 4	2051105307736990 336	PEPSI-S X	D300, CD1-4	0.5h	
Maiorano	EP241026b	LBC-Bino	r-r	1h	DIMM~1"
Maiorano	EP241113a	LBC-Bino	r-r	0.4h	DIMM~1.3"
CALIB	dome flats and arcs	LUCI1			for Tozzi and Signorini

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1PTGMI5wGVhW1UAXpoqs6fKBxcAjt7pGr/view?usp=sharing>

log from A. Becker :

<https://drive.google.com/file/d/1MypAe6x80W-Q-URA1aCVWgZ4P9ExqZZF/view?usp=sharing>

Summary of LBC science files:

<https://drive.google.com/file/d/1Uo0OTUH4YKJ4SZBkIUoZSTI5nwkiNuNk/view?usp=sharing>

Summary of LUCI calibration files:

[https://drive.google.com/file/d/1lvzOfxH6ufnks\\_N6dT7ngwfM83WgKr70/view?usp=sharing](https://drive.google.com/file/d/1lvzOfxH6ufnks_N6dT7ngwfM83WgKr70/view?usp=sharing)

## INAF queue observing, 2024 November 15 - November 16

Observer: Ester Marini, Felice Cusano

Support: Dave Thompson

Telescope operator: David Gonzalez Huerta

Instrument: PEPSI-SX, LBC

## Summary

These observations have been performed in C-19 mode by Ester Marini and Felice Cusano .  
At sunset there are some thin cirrus in the sky and there are wind gusts > 22m/s. We stay closed all the night for high wind and humidity.

For the gregorian instruments, we can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:20 - 12:49 UT = \* 11h\* \* 29m\*

Observing time: 0 h 0 min (0%)\*

Weather time loss: 11 h 29 min (100%)\*

Technical time loss: 0 h 0 min (%)\*

Shark-NIR time loss: 0h 0min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
calibrations	flat imag	LUC11	J, H		Imag flats

Further details in the log by LBT-Italia at this link:

<https://drive.google.com/file/d/1IUdCJF8-S6-nuEwipsTLsC--yE2vrXTe/view?usp=sharing>

log from D. Thompson :

[https://drive.google.com/file/d/1Q9-loVec\\_pvRm6J2B5-rKIGcUS2vrjVF/view?usp=sharing](https://drive.google.com/file/d/1Q9-loVec_pvRm6J2B5-rKIGcUS2vrjVF/view?usp=sharing)

## INAF queue observing, 2024 November 16 - November 17

Observer: Andrea Rossi, Ester Marini

Support: Dave Thompson

Telescope operator: David Gonzalez Huerta

Instrument: MODS

## Summary

These observations have been performed in C-19 mode by Ester Marini and Felice Cusano .  
At sunset the sky is cloudy and Humidity is > 95%, we stay closed. David called the night at 10:14UT, due to sufficient ice on enclosure and high humidity.

For the gregorian instruments, we can use only the left side due to delay in the installation of the DX adSec.

Night duration (12 degree - twilight) 1:20 - 12:49 UT = \* 11h\* \* 29m\*

Observing time: 0 h 0 min (0%)\*

Weather time loss: 11 h 29 min (100%)\*

Technical time loss: 0 h 0 min (0%)\*

Shark-NIR time loss: 0 h 0 min (0%)\*

Data Summary

Project_RUN	Objects	Instrument	Configuration	ExpTime /Time_tot	Notes
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Further details in the log by LBT-Italia at this link:

[https://drive.google.com/file/d/11IJDDmYUcC1DDIWHLRSb8jqOq1g\\_Li7t/view?usp=sharing](https://drive.google.com/file/d/11IJDDmYUcC1DDIWHLRSb8jqOq1g_Li7t/view?usp=sharing)

And in the log by D. Thompson:

[https://drive.google.com/file/d/1bkc8HbrsYE30hGa\\_rHLBLHEKKWmZxncl/view?usp=sharing](https://drive.google.com/file/d/1bkc8HbrsYE30hGa_rHLBLHEKKWmZxncl/view?usp=sharing)