



智能天文望远镜在公众科学中的案例分享

ZWO Seestar 的公众科学实践

演讲人：产品经理 朱沁虞 博士

日期：2025. 08. 01





- ▶ 基于LAMOST中分辨率光谱研究昴星...
- ▶ 研究人员利用LAMOST光谱数据开展...
- ▶ NADC毕业论文专题 | 人工智能助...
- ▶ 14.5米光学红外望远镜招工艺师啦



- LAMOST光谱巡天第十三次数据发布第〇版
- LAMOST光谱巡天第十三次数据发布第〇版...
- 暗能量光谱巡天第一次数据释放 (DESI D...)
- 中国天文底片数字化数据：单次曝光底片测光星...



- FAST第十五批科学数据
- DESI遗珍成像巡天第十次数据发布
- LAMOST光谱巡天第九次数据发布第2.0版
- 南极AST3-2数据发布



ESASky



Microsoft Research World Wide Telescope
WWT Community Beijing
北京

体验 万维望远镜，在无限的星空中畅游

2022 第五届 宇宙漫游 创作大赛
征程·能力·宇宙·科学·美丽

万维望远镜 正式发布
2021.10.27

软件下载:
[万维望远镜个人版](#)
[下载历史版本](#)
[网页版](#)

可能需要的组件:
[.net Framework 4.8](#)
[.net Framework 3.5](#)
[.net Framework 2.0\(XP, Vista\)](#)
[VSTOR2010](#)
[DirectX 9](#)
[万维望远镜 自启动 一直弹窗“GPU error”的处理](#)

辅助工具:
[图片拼接 32位 64位](#)
[WWTSdk](#)

15天内 颁奖/入围数 排名

杜鹏皓	0.03%	杜鹏皓	1190 张	毕春朋	813004 张
陈政	0.07%	梁明海	450 张	葛迎宾	691334 张
周朝海	0.16%	卢相祥	279 张	徐建林	662036 张
张朝涛	0.18%	陈政	229 张	梁明海	505017 张
侯忠远	0.19%	王学	146 张	阮高高	50036 张
马士卓	0.25%	王晨阳	53 张	高伟	463508 张

PSP系统发现目标列表
公众超新星搜寻项目 (PSP) 奖项获奖者名单
操作说明
误判图例
项目简介



欢迎加入 公众超新星搜寻项目

开始您的超新星搜寻之旅

项目简介 PSP已知目标 旧图试看 开始搜寻

15天内 颁奖/入围数 排名	24小时内 有图新手	搜寻大神			
杜鹏皓	0.03%	杜鹏皓	1190 张	毕春朋	813004 张
陈政	0.07%	梁明海	450 张	葛迎宾	691334 张
周朝海	0.16%	卢相祥	279 张	徐建林	662036 张
张朝涛	0.18%	陈政	229 张	梁明海	505017 张
侯忠远	0.19%	王学	146 张	阮高高	50036 张
马士卓	0.25%	王晨阳	53 张	高伟	463508 张

PSP新闻
2022年9月9日发现UGC12341超新星候选
公众超新星搜寻项目 (PSP) 奖项第三次调整的通告
星高高 ——2021年10月25日公众超新星搜寻...
2021年10月25日发现一颗M31新星候选体...
2021年10月14日至19日发现八颗超新星候选体

MicroObservatory Robotic Telescope Network



Welcome to the MicroObservatory Robotic Telescope Network
operated by Center for Astrophysics | Harvard & Smithsonian.

Telescope Full Description: Maksutov reflector

Aperture (mm) : 152

Focal length (MM) : 550

Filters: BVRI (Bessell), clear, ND4, or opaque

Camera:KAF 1402ME, 6.8 um 1317 x 1035

Pixel Size (arcsec) : 5.1, 5.1

Field-of-View (arcmin) : 55.25, 42.5

Finder Optical: multi-element lens f/4.5, 28mm EFL

Finder Camera: KAF-0402ME, 9 um

Explore
the Universe with
telescopes you
control over the
internet!

Follow Us





为了让每个人都有机会
仰望星空

要设计便携、易用、一体化的智能天文望远镜



振旺 ☆ Seestar

S50

口径 50mm

焦距 250mm

传感器 长焦：IMX462 (1/2.8")

广角：无

分辨率 1920*1080

长焦：1.47°

视场角 广角：无

售价 ￥2999



S30

口径 30mm

焦距 150mm

传感器 长焦：IMX662 (1/2.8")

广角：GC2083 (横画幅)

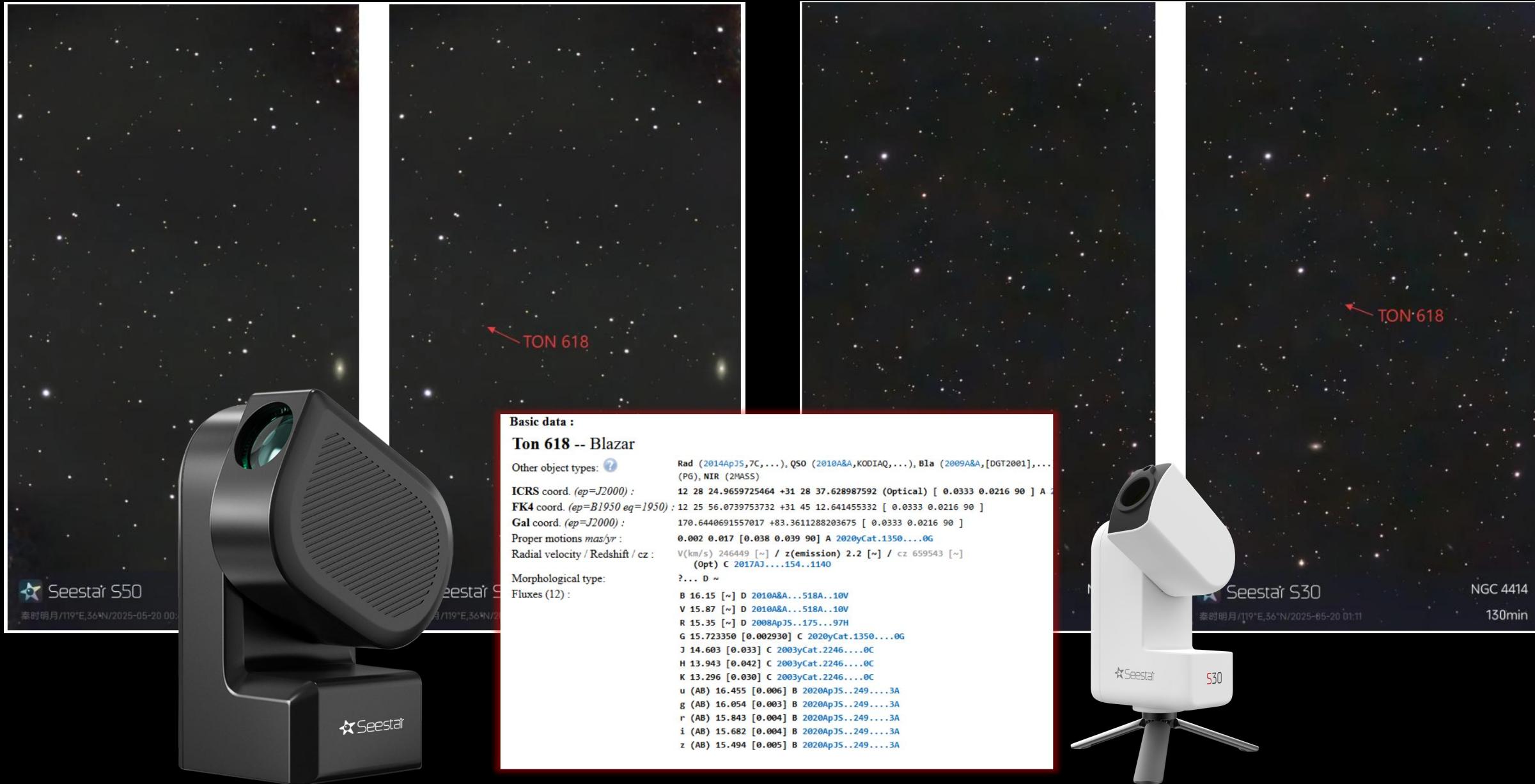
分辨率 双摄 1920*1080

长焦 2.46°

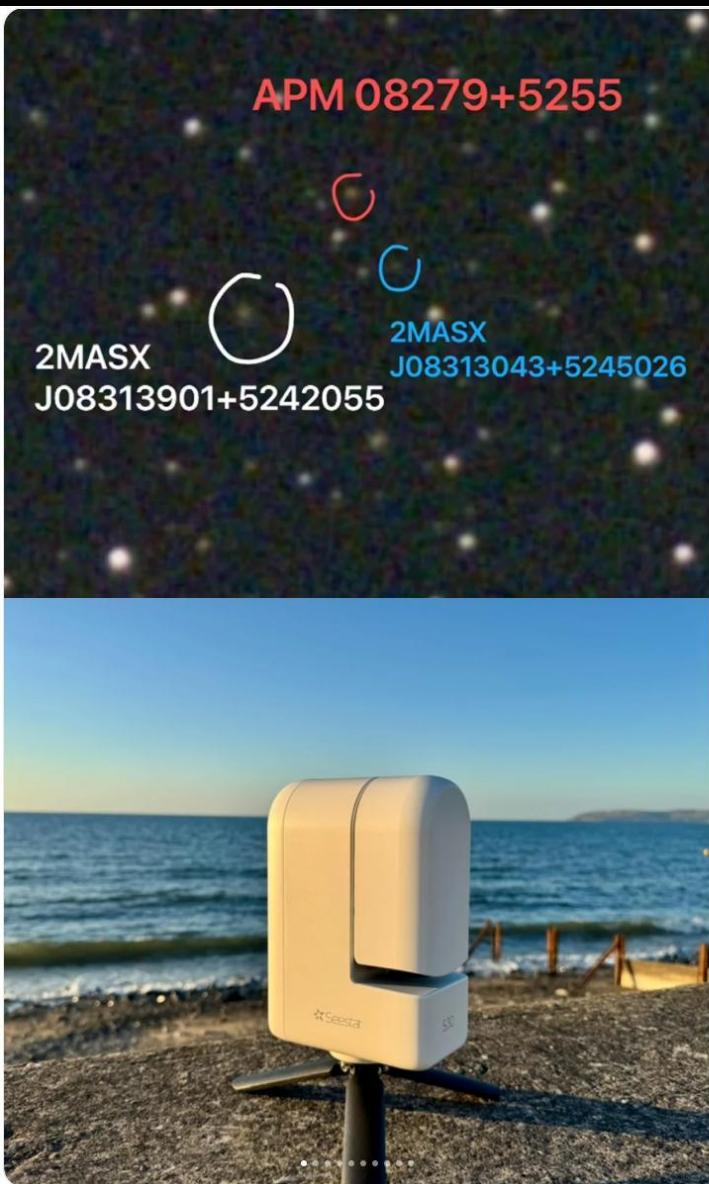
广角 23.2°

售价 ￥1999

用户“秦时明月”使用Seestar S50/S30观测遥远天体



伦敦国王学院理论物理博士生使用Seestar S30观测遥远天体



天体物理博士生Lucien

关注

APM 08279+5255

我用千元级望远镜捕获了121亿年前的光！

总有人问我，你这望远镜可以看多远啊？那么，一台千元级的智能望远镜，可以望多远？我在英国威尔士北岸再一次刷新的纪录！答案是：约17.8星等，约121亿光年！

这次选择的目标名为APM 08279+5255类星体，她极其高能，光度达到了太阳的约 10^{15} 倍。在前景一个倾斜的漩涡星系的引力透镜作用下，该类星体的亮度达到了约15.2，因为宇宙膨胀，她的红移值达到了恐怖的 $z=3.911$ ，推算出距离我们大约121亿光年！（仅仅宇宙诞生后约16亿年），在可见光波段也因为宇宙膨胀而比周围恒星更红（图6很明显）。

④科学薯

5月22日，我使用Seestar S30的经纬仪模式，在光害4级区的威尔士北岸，对该天区进行2.5小时的曝光。当宇宙早期类星体的光线，在宇宙中漫游了121亿年，来到了我智能望远镜的小小感光元件上，实在是件非常浪漫的事情！

此行我同样想根据这张照片来测试s30可以看到多暗的星体，所以用远我在青海远程台托管的8寸RC望远镜对该天区进行了2小时曝光，以此来进行对比。对于附近两个视星等为17.8的星系，s30的照片也呈现出其光点。对于恒星，我选了照片中噪点之外的最小星点，在r通道也约为17.8。所以千元级望远镜在经纬仪和4级光害环境，2.5小时能看到17.8星等的目标，真的是非常令人震惊！

@ZWO @Seestar

图2: s30经纬仪2.5小时曝光原图

图3,4: s30照片中暗星系和恒星标注

图5: 深度曝光的该天区目标

图6: s30在威尔士北岸

图7: 我的8寸RC的2小时曝光图以及星体标注

图8: 钱德拉望远镜对该类星体的成像

图9: 提及的暗星系和恒星信息

图10: 我的8寸RC捕获该类星体的艺术图

#天文 #科学回音壁 #天文望远镜 #seestar #zwo振旺 #深空摄影 #类星体 #宇宙 #威尔士 #英国留学生

编辑于 05-24

共 10+ 条评论

梦原しづく

登录后评论

10+ 10+ 10+



Basic data :

2MASS J08320595+5244560 — Star

Other object types: ②
ICRS coord. (*epvJ2000*) : 08 32 05.9116042132 +52 44 56.099054969 (Optical) [0.0953 0.0790 90] A 2020yCat. 1550...
FK4 coord. (*epvB1950 eqv1950*) : 08 28 22.3043814374 +52 55 07.130914434 [0.0953 0.0790 90]
Gal coord. (*epvJ2000*) : 165.7399051447783 +36.301708976511 [0.0953 0.0790 90]
Proper motions *mas/yr* : 2.361 -4.828 [0.112 0.113 90] A 2020yCat. 1550...
Parallaxes (*mas*) : 0.2431 [0.1295] A 2020yCat. 1550...
Fluxes (9) :
G 17.838826 [0.0693417] C 2020yCat. 1550...
J 16.395 [0.12] C 2020yCat. 2246...
H 15.777 [0.177] C 2020yCat. 2246...
K 15.843 [0.255] D 2020yCat. 2246...
u (AB) 20.325 [0.073] C 2020yCat. 182...
g (AB) 18.600 [0.069] B 2020yCat. 182...
r (AB) 17.832 [0.067] B 2020yCat. 182...
i (AB) 17.524 [0.067] B 2020yCat. 182...
z (AB) 17.332 [0.067] C 2020yCat. 182...
s (AB) 17.332 [0.067] C 2020yCat. 182...

Basic data :

2MASX J08313043+5245026 — LINER-type Active Galaxy Nucleus

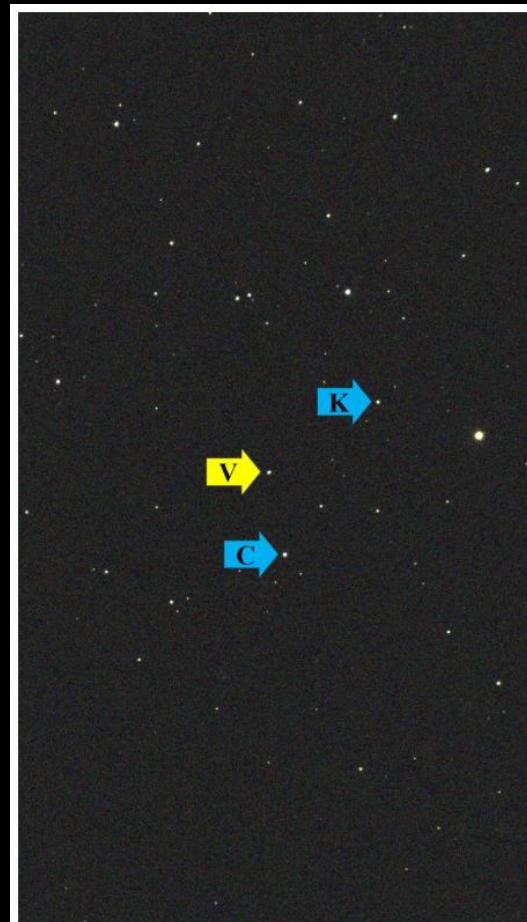
Other object types: ②
ICRS coord. (*epvJ2000*) : 08 31 30.434460784 +52 45 02.725661340 (Optical) [16.9781 11.2272 90] C 2020yCat. 1550...
FK4 coord. (*epvB1950 eqv1950*) : 08 27 46.6978997362 +52 35 11.485900532 [16.9781 11.2272 90]
Gal coord. (*epvJ2000*) : 165.7608827499461 +36.2122176211385 [16.9781 11.2272 90]
Radial velocity / Redshift / cz : 30150 [0.121] z (spectroscopic) 0.1403 [0.0094] / cz 42084.9 [12.0]
Angular size (arcmin): 0.183 0.117 70 (NIR) C 2020yCat. 1550...
Fluxes (9) :
C 21.769939 [0.042516] C 2020yCat. 1550...
J 14.906 [0.104] C 2020yCat. 1550...
H 14.150 [0.117] C 2020yCat. 1550...
K 13.849 [0.161] C 2020yCat. 1550...
u (AB) 20.031 [0.123] D 2015yCat. 1550...
g (AB) 17.876 [0.016] B 2015yCat. 1550...
r (AB) 16.742 [0.006] B 2015yCat. 1550...
i (AB) 16.211 [0.006] B 2015yCat. 1550...
z (AB) 15.826 [0.015] C 2015yCat. 1550...

Basic data :

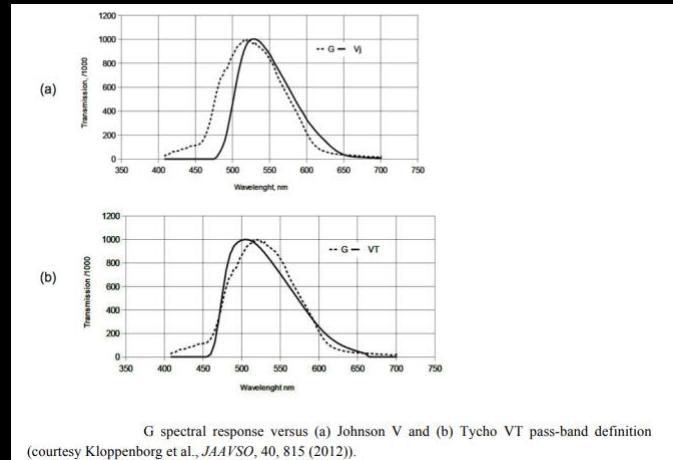
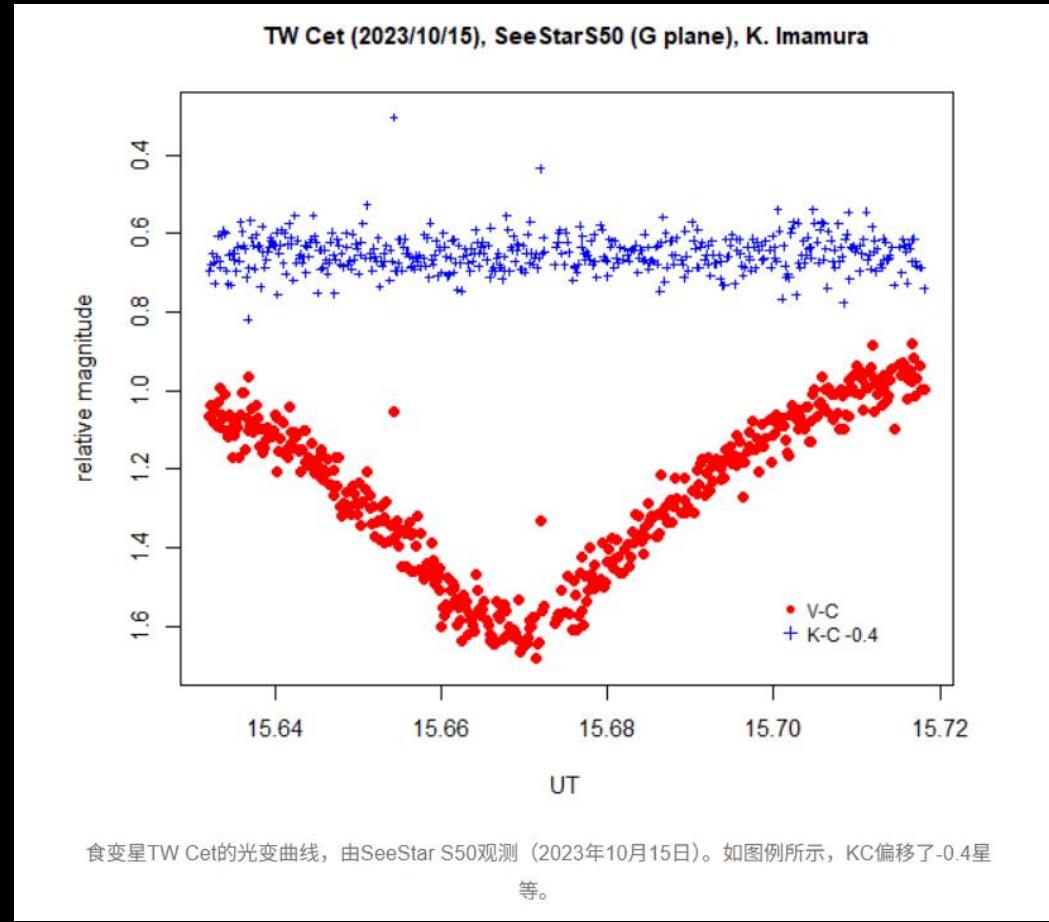
2MASX J08313901+5242055 — Seyfert 2 Galaxy

Other object types: ②
ICRS coord. (*epvJ2000*) : 08 31 39.066051736 +52 42 05.505067984 (Optical) [1.9163 1.4925 90] A 2020yCat. 1550...
FK4 coord. (*epvB1950 eqv1950*) : 08 27 55.0079811379 +52 14.799641632 [1.9163 1.4925 90]
Gal coord. (*epvJ2000*) : 165.8210741003165 +36.23547622224437 [1.9163 1.4925 90]
Radial velocity / Redshift / cz : 17095 [1] z (spectroscopic) 0.0564 [0.0001] / cz 17379.8 [3.0]
Angular size (arcmin): 0.203 0.167 115 (NIR) C 2020yCat. 1550...
Fluxes (11) :
B 18.52 [1] D 2010yCat. 1550...
V 17.91 [1] D 2010yCat. 1550...
G 20.094709 [0.017033] C 2020yCat. 1550...
J 13.925 [0.059] C 2020yCat. 1550...
H 13.322 [0.072] C 2020yCat. 1550...
K 13.085 [0.100] C 2020yCat. 1550...
u (AB) 17.976 [0.024] C 2020yCat. 1550...
g (AB) 16.511 [0.004] B 2012yCat. 1550...
r (AB) 15.814 [0.004] B 2012yCat. 1550...
i (AB) 15.398 [0.004] B 2012yCat. 1550...
z (AB) 15.100 [0.009] B 2012yCat. 1550...

日本Imamura 今村和義博士使用Seestar S50进行变星测光



2023年10月15日（世界时）拍摄的鲸鱼座TW（TW Cet）图像（去拜耳化后的彩色图像）。曝光时间为10秒。V=鲸鱼座TW，C=比较星（Vmag=9.44），K=对照星（Vmag=10.42）。由于这张照片拍摄于正午附近，因此照片顶部几乎指向正北方向。有关对照星和对照星的亮度，请参阅UCAC4。



さいごに（まとめと課題）

今回の検証を以下のようにまとめる。

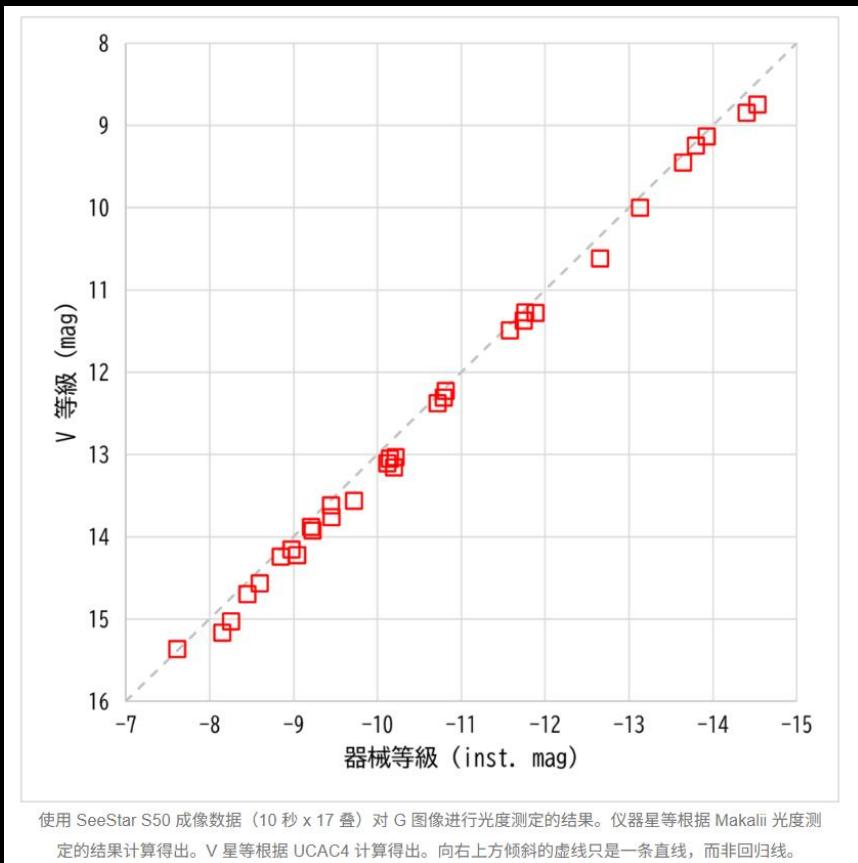
- SeeStar S50 で短周期の食変光星（TW Cet）の連続測光観測を行った（約2時間）。
- AIP4Win V2 でG画像について測光した（アパチャーメート、差測光）。
- その結果、観測開始の明るさから約0.6等暗くなったあと、再び明るくなる副極小を捉えることができた。

本次验证结果总结如下：

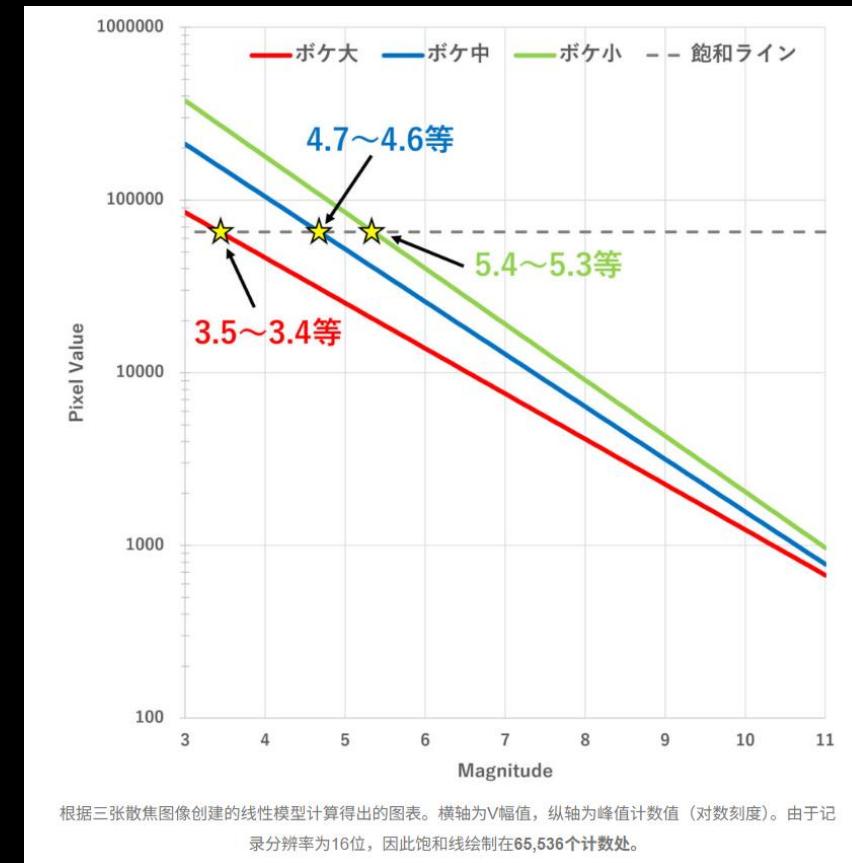
- 使用 SeeStar S50 对短周期食变星 (TW Cet) 进行了连续测光观测 (约 2 小时)。
- G 通道使用 AIP4Win V2 (孔径测光、相对测光) 进行测光。
- 结果，我们捕捉到了亮度从初始亮度下降约 0.6 个星等，然后再次变亮的亚最小值。

日本Imamura 今村和義博士使用Seestar S50进行变星测光

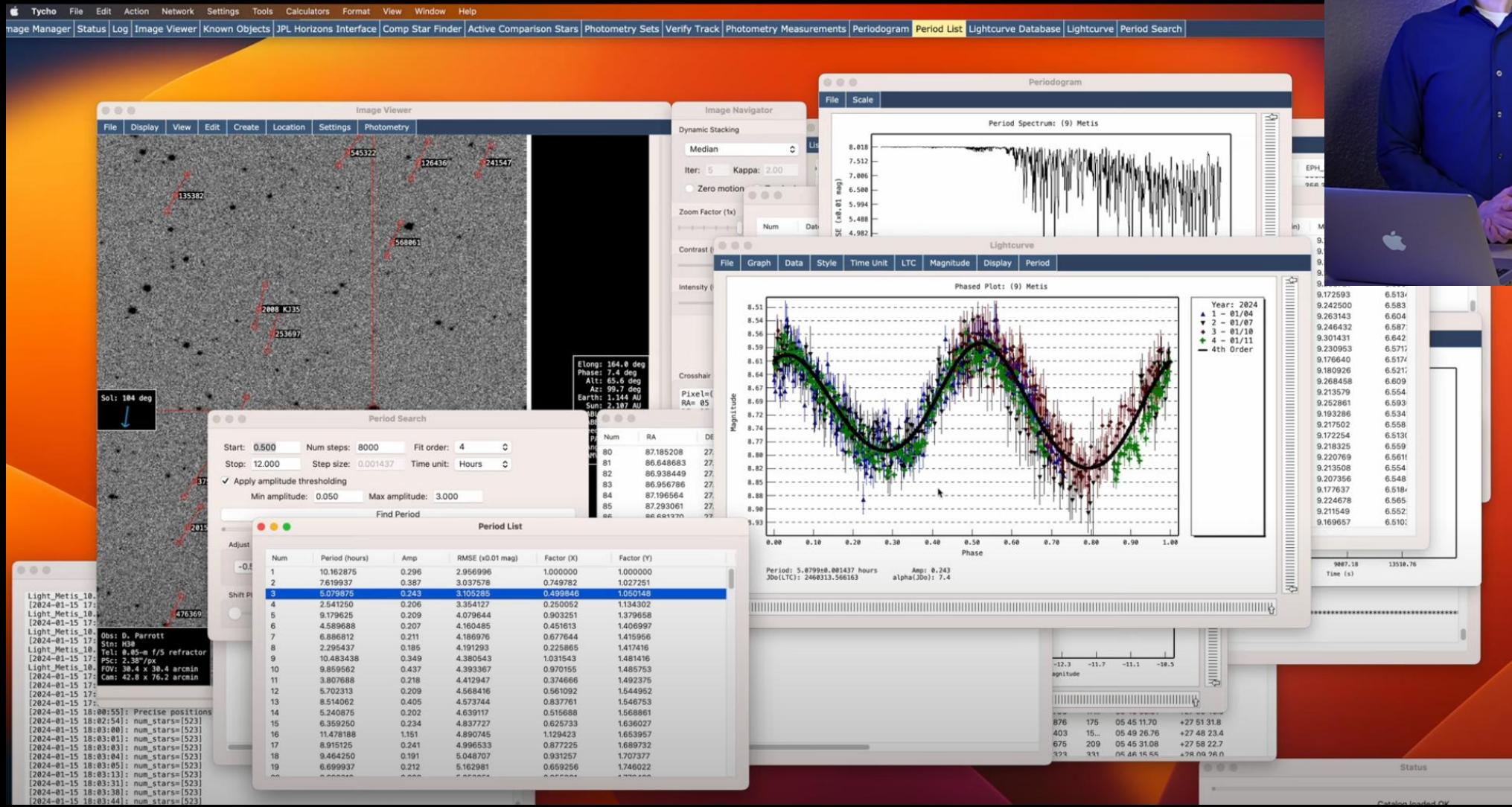
星点合焦测光 (8-16mag)



轻微离焦测光 (可扩展至约4-11mag)



Tycho Tracker作者使用Seestar S50进行Metis自转测光测量（环境Bortle 6）



通过S50间隔4晚观测Metis光度，测得自转周期为 5.0799 ± 0.001437 小时，与官方数值5.08小时非常接近！



Parrott, D. Tycho Tracker

美国和约旦用户小组使用Seestar S50进行系外行星观测

"
Dear ZWO team

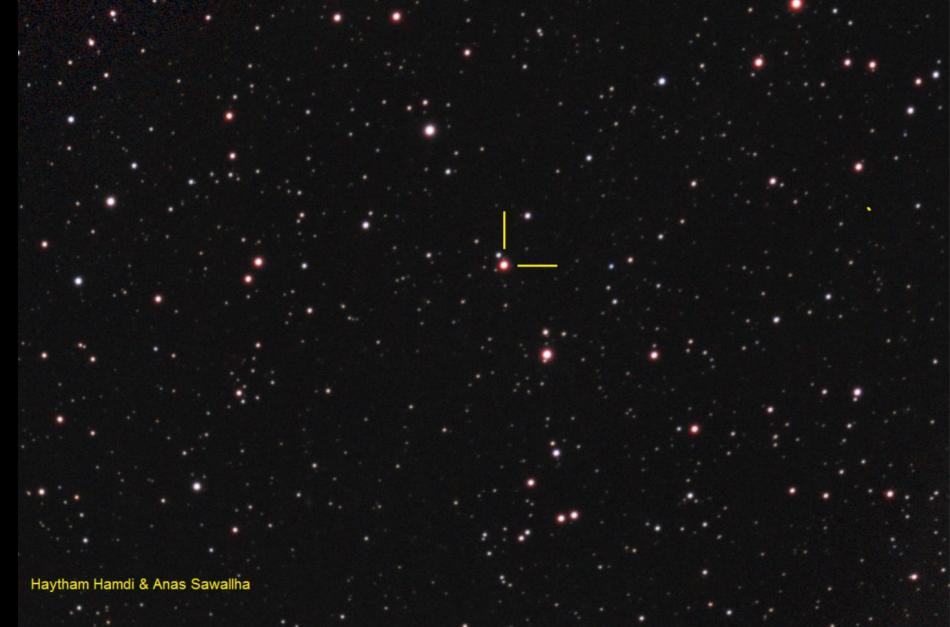
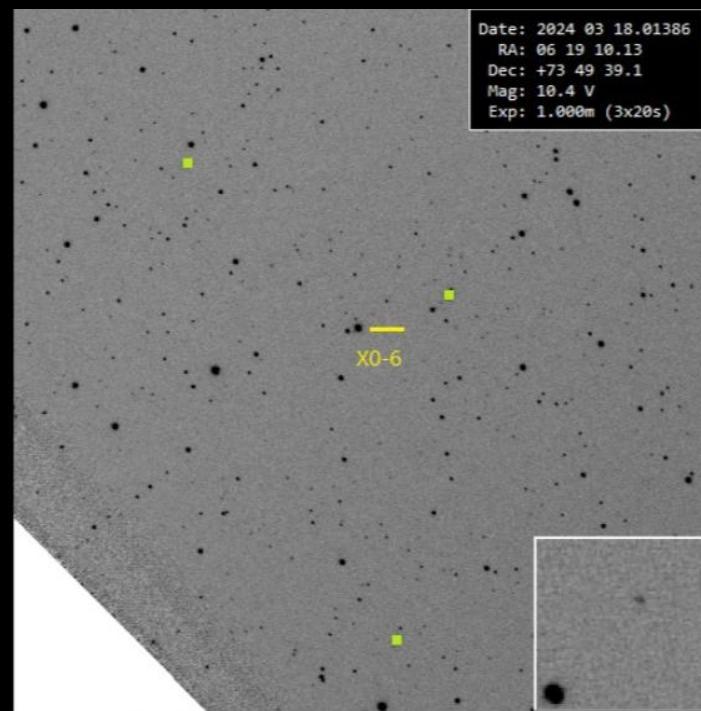
We made an attempt to test whether we can observe an exoplanet with **Seestar S50**. And we have succeeded in observing the **Exoplanet X0-6 b in Camelopardalis** by detecting the small dip in the star's light made by the transiting of the exoplanet in front of the star from our perspective here on earth. We took a series of **20 sec exposures for 4 hours** then we entered the data into a photometric analysis software (Tycho Tracker). A light curve was generated based on the analyzed data shows the small dip in the light emitted by the star.

Imaging was done By me **Haytham Hamdi from Newbury, New Hampshire** and the data analysis was done by **Anas Sawallha from Irbid, Jordan**.

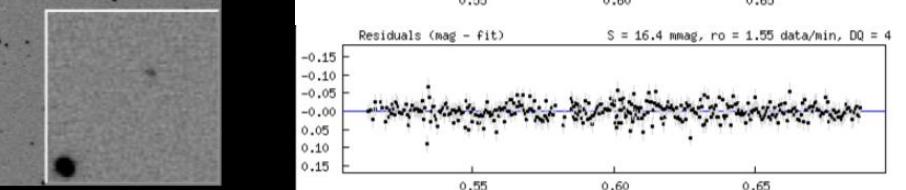
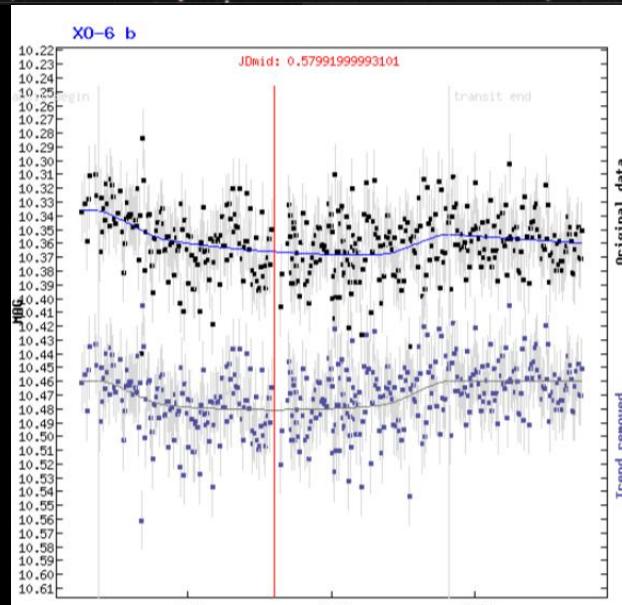
"

我们尝试用 **Seestar S50** 观测系外行星。我们成功地观测到了位于 **鹿豹座的系外行星 X0-6 b**，从地球的视角看，这颗行星在凌经恒星前方时，恒星亮度出现了微小的下降。我们连续 4 小时拍摄了一系列 20 秒的曝光照片，然后将数据输入光度分析软件 (Tycho Tracker) 中。根据分析数据生成的光变曲线显示了恒星亮度的微小下降。

成像工作由我，来自新罕布什尔州纽伯里的 Haytham Hamdi 完成，数据分析工作由来自约旦伊尔比德的 Anas Sawallha 完成。



Haytham Hamdi & Anas Sawallha



新西兰用户Rob Glassey使用S50进行小行星掩星观测

Rob Glassey
2024年6月12日 · 🌙

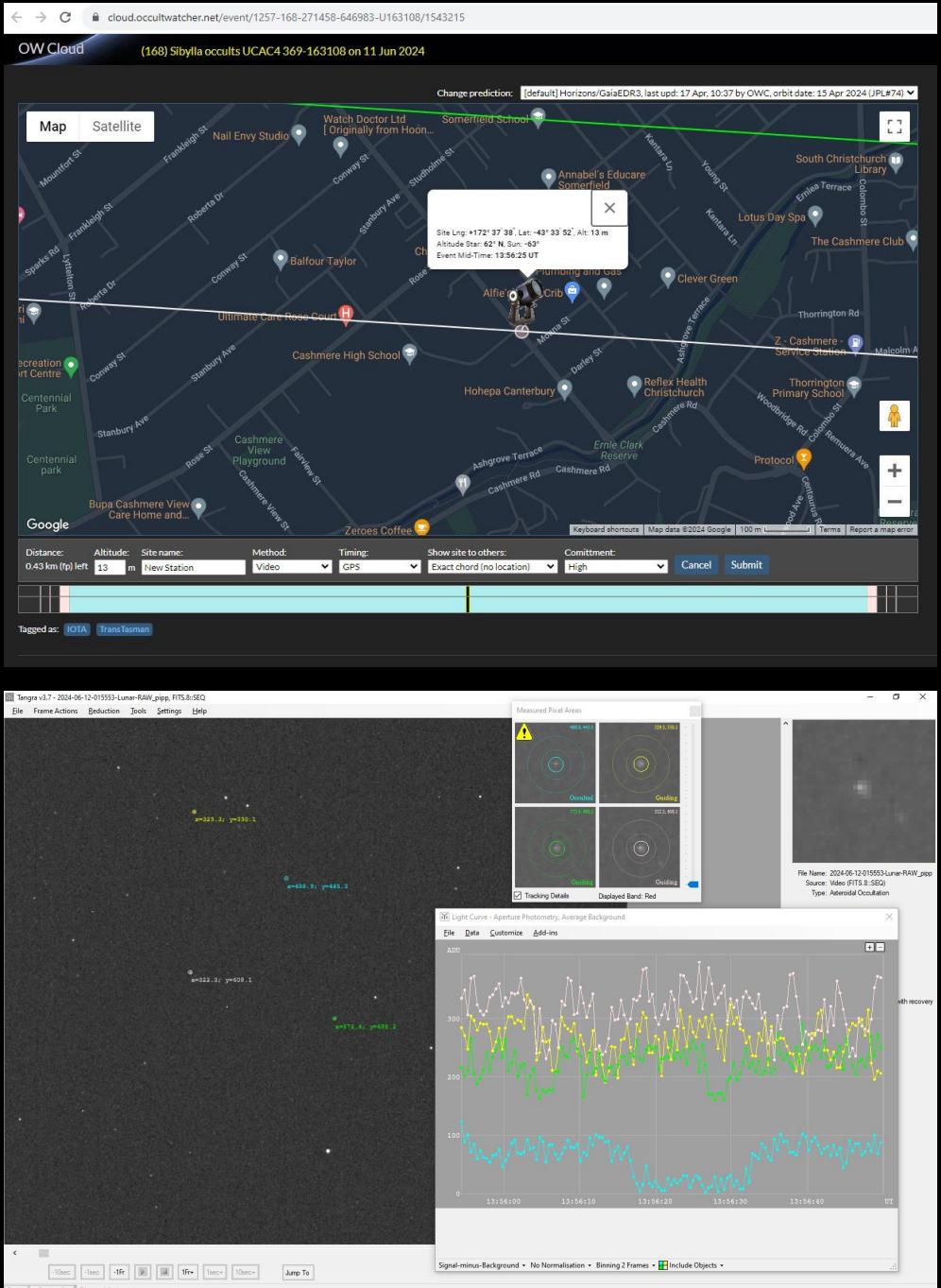
Occultation of star by asteroid (168) Sibylla

Taken with Seestar S50 as raw lunar AVI, 200ms exposures, max gain. Processed using PIPP and Tangra to produce the light curve. Timing came from the start and end times of the video as recorded by the Seestar, taken from the tablet time (GPS). In the light curve I averaged 2 frames to reduce noise.

Star plus asteroid combined magnitude 11.6, dropping to 13.5 during occultation (asteroid only). This is pushing the limit of what the Seestar can do from Bortle 5/6. Occultation lasted about 15 seconds but it's hard to tell exactly due to noise. Darker skies would help.

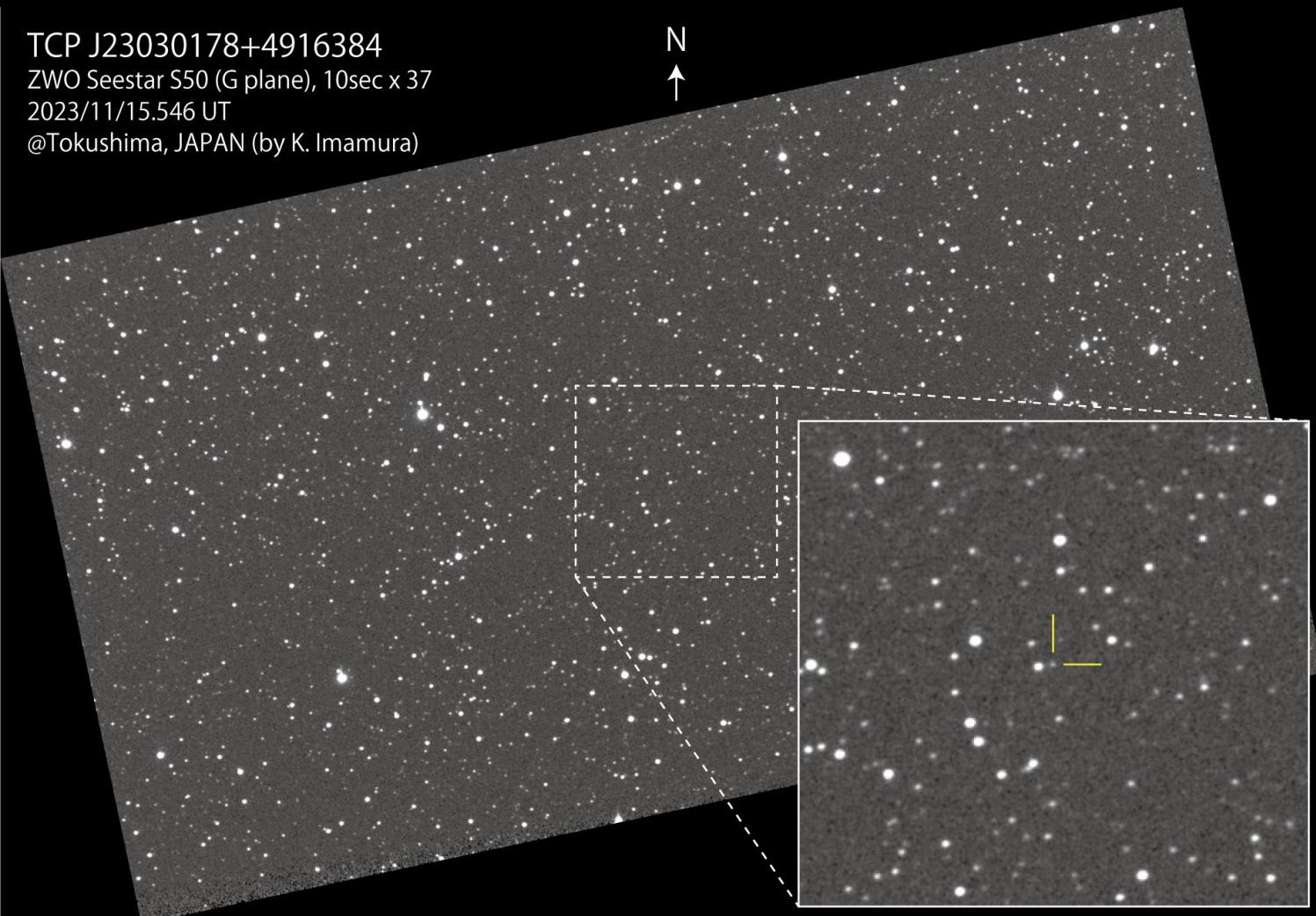
The animation is 3 stacks of 50 frames, before, during and after the occultation. The motion is from the Seestar drift. There are a lot of hot pixels since darks are not used for video. I could have taken a dark video to reduce this.

主带小行星168 Sibylla掩星，观测地点基督城，光害Bortle 5/6级。
曝光时间200ms，增益最大，GPS信号来源于主控平板电脑，录制视频观测。
小行星与背景星最亮11.6等，掩星极大为13.5等（仅小行星），掩星时长约15秒。



日本Imamura 今村和義博士使用Seestar S50上报瞬变源 (AT2023xni) 后随观测

TCP J23030178+4916384
ZWO Seestar S50 (G plane), 10sec x 37
2023/11/15.546 UT
@Tokushima, JAPAN (by K. Imamura)



Search CBAT

Central Bureau for Astronomical Telegrams

Publications & Services

- Subscriptions
- On-line IAUCs
- On-line CBETs
- IAUC/CBET RSS Feeds
- TOCP RSS Feeds
- MPC RSS Feeds
- Search IAUCs/CBETs

Discoveries

- Astronomical Headlines
- TOCP
- Press Information Sheets
- What to Report
- How to Report

Lists

- Supernovae List
- Nova List
- Comet magnitudes
- Comets
- Edgar Wilson Award
- Minor-Planet Satellites

Links

- CBAT
- IAU Commission 6
- Cometary Science Center
- Minor Planet Center
- Origins/Harvard
- EPS/Harvard

CBAT "Transient Object Followup Reports"

TCP J23030178+4916384

TCP J23030178+4916384 2023 11 11.6469* 23 03 01.78 +49 16 38.4 14.6 C And R 9

2023 11 11.6469
UG candidate classified by XROSS. Details can be found at <http://xjltl.china-vo.org/xm125mz.html>

2023 11 13.1608
Photometry results were B=14.94, V=15.06 and Rc=15.11 with 0.43m reflector at iTelescope.NET, Utah Desert Remote Observatory, Utah, USA. https://meineko.com/ccd/TCP_J23030178+4916384.jpg - Seiichiro Kiyota (Kamagaya, Japan)

2023 11 15.546
I have performed follow up observation for this object on Nov. 15.546UT using ZWO Seestar S50. My photometric result is 15.49 +/- 0.04 mag. Measured for separated G-plane from RGB image (magnitude references: UCAC4 V mag). The observed image can be seen in the following (Tokushima, JAPAN / Kazuyoshi Imamura): http://imako-iak.boo.jp/wp-content/uploads/2023/11/TCP_J2303_20231115_seestar.jpg

澳大利亚Pearce和日本Yusa对新星V615 Vul的观测 (CBET: 5423)



V615 Vul = Nova Vulpeculae 2024. 1 Aug. 2024, 20:54 UTC.

This image comes from a single 120-second exposure, remotely taken with the "Elena" (PlaneWave 17"+ Software Bisque Paramount MEII + SBIG STL-6303E) robotic unit part of the Virtual Telescope Project. As for the brightness, we've found Nova Vul 2024 on R-filtered images at mag. 9.3 (R mags for the reference stars from UCAC4). Image scale: 1.26"/pixel.

Image by G. Masi & P. Catalano, Manciano (GR), Italy - MPC code: M50 - The Virtual Telescope Project - www.virtualtelescope.eu



Electronic Telegram No. 5423
Central Bureau for Astronomical Telegrams
Mailing address: Hoffman Lab 209; Harvard University;
20 Oxford St.; Cambridge, MA 02138; U.S.A.
e-mail: cbatiau@eps.harvard.edu (alternate cbat@iau.org)
URL <http://www.cbat.eps.harvard.edu/index.html>
Prepared using the Tamkin Foundation Computer Network

V615 VULPECULAE = NOVA VULPECULAE 2024 = PNV J19430751+2100204
K. Sokolovsky, University of Illinois and Sternberg Astronomical Institute; together with S. Korotkiy, N.Potapov, and S. Ostapenko, report the discovery of an apparent nova (mag 11.2) on wide-field unfiltered CCD images obtained with a 135-mm-f.1. f/2.0 telephoto lens in the course of the "New Milky Way" (NMW) survey operating at the Astrovert astrofarm in Nizhnii Arkhyz, Karachay-Cherkessia, Russia, on July 29.832 UT; the position was given as R.A. = 19h43m07s.51, Decl. = +21d00'20".4 (equinox J2000.0), which yielded the assignment of the preliminary designation PNV J19430751+2100204 when the variable was posted to the Central Bureau's TOCP webpage. Nothing was visible at this location on an NMW survey image taken on July 28.840 (limiting mag 14.5), and Sokolovsky et al. note that no previous outbursts are present in ASAS-SN data (previous observation on July 27.492 showing nothing to limiting mag 16.5). The discovery images are available at the following URL: <http://scan.sai.msu.ru/~kirkz/img/PNVJ19430751+2100204/>.

Additional reported magnitudes for PNV J19430751+2100204: July 29.513, [14.8 (T. Kojima, Tsumagoi, Gunma-ken, Japan, Canon EOS 6D digital camera + 300-mm-f.1. f/2.8 lens); 30.513, 9.9 (R. Kaufman, Bright, Vic., Australia; object appears quite red and highly saturated; "TG" magnitude); 30.521, V = 9.79, B = 11.51, I_c = 7.79 (K. Yoshimoto, Yamaguchi, Japan; 0.20-m f/8 reflector + CMOS; position and figures 07s.50, 21".4; image posted at URL http://orange.zero.jp/k-yoshimoto/PNV_J19430751+2100204_20240730.jpg); 30.575, V = 9.86, TB = 11.40, TR = 9.21 (A. Pearce, Nedlands, W. Australia, 0.05-m f/5 refractor + CCD; position and figures 07s.49, 21".2; Gaia DR2 reference stars); 30.893, B = 11.52 +/- 0.01, V = 9.61 +/- 0.01, R_c = 8.46 +/- 0.01, I_c = 7.30 +/- 0.01 (E. Broens, Mol, Belgium, 0.28-m Schmidt-Cassegrain telescope + CCD; Johnson-Cousins bands; position and figures 07s.52, 21".4); 31.515, V = 9.9 (T. Yusa, Osaki, Miyagi, Japan; stacked G-band images with a ZWO Seestar 50-mm f/5 All-in-One Smart Telescope, limiting mag 14.5; Hipparcos Catalogue reference stars); 31.874, B = 11.98 +/- 0.01, V = 10.24 +/- 0.01, R_c = 8.83 +/- 0.01, I_c = 7.50 +/- 0.01 (Broens). Pearce notes that his position for PNV J19430751+2100204 (above) is within 0".2 of Gaia star 1825912166611947136 (magnitude G = 19.8). A. Amorim, Florianopolis, Brazil, reports visual mag 10.6 on Aug. 1.03 as seen with a 0.09-m refractor (Tycho-2 catalogue reference stars via AAVSO). Spectroscopy indicates that this is a reddened nova that is rapidly changing (e.g., cf. <http://www.astronomerstelegram.org/?read=16746>).

E. Kazarovets writes that the permanent GCVS designation V615 Vul has been assigned to this nova.

NOTE: These 'Central Bureau Electronic Telegrams' are sometimes superseded by text appearing later in the printed IAU Circulars.

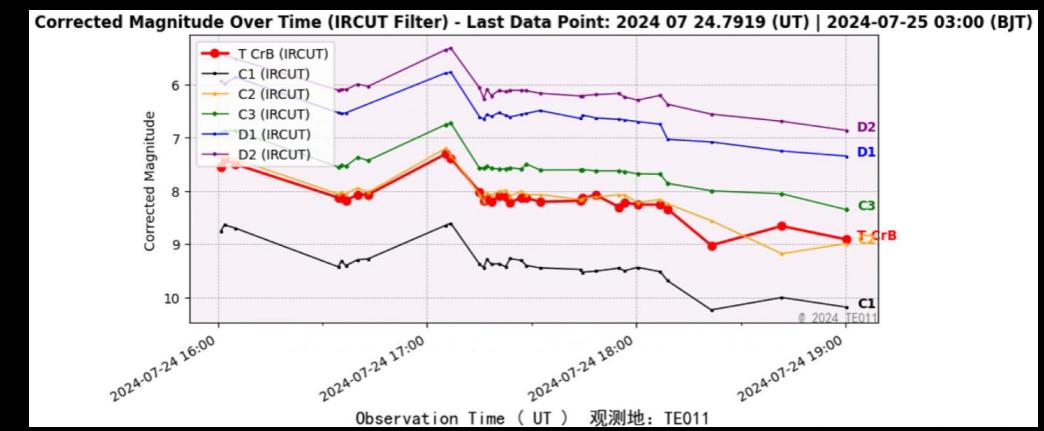
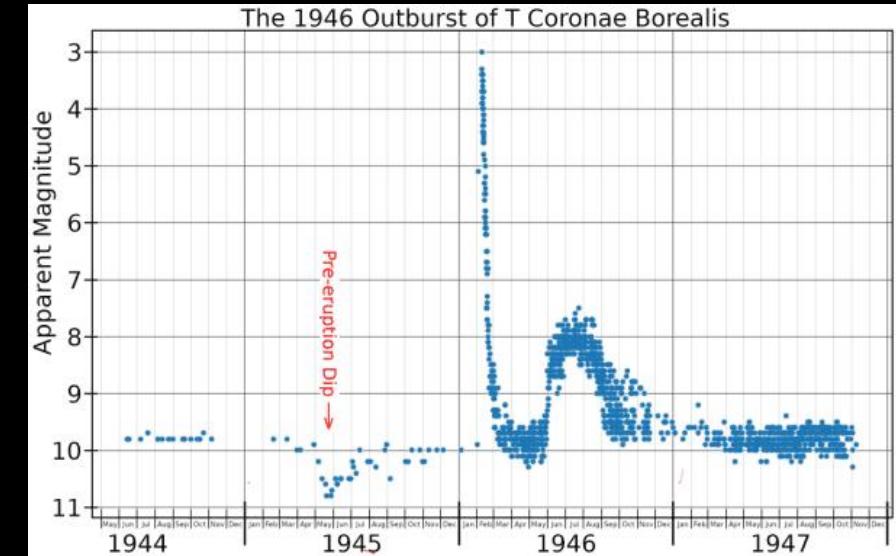
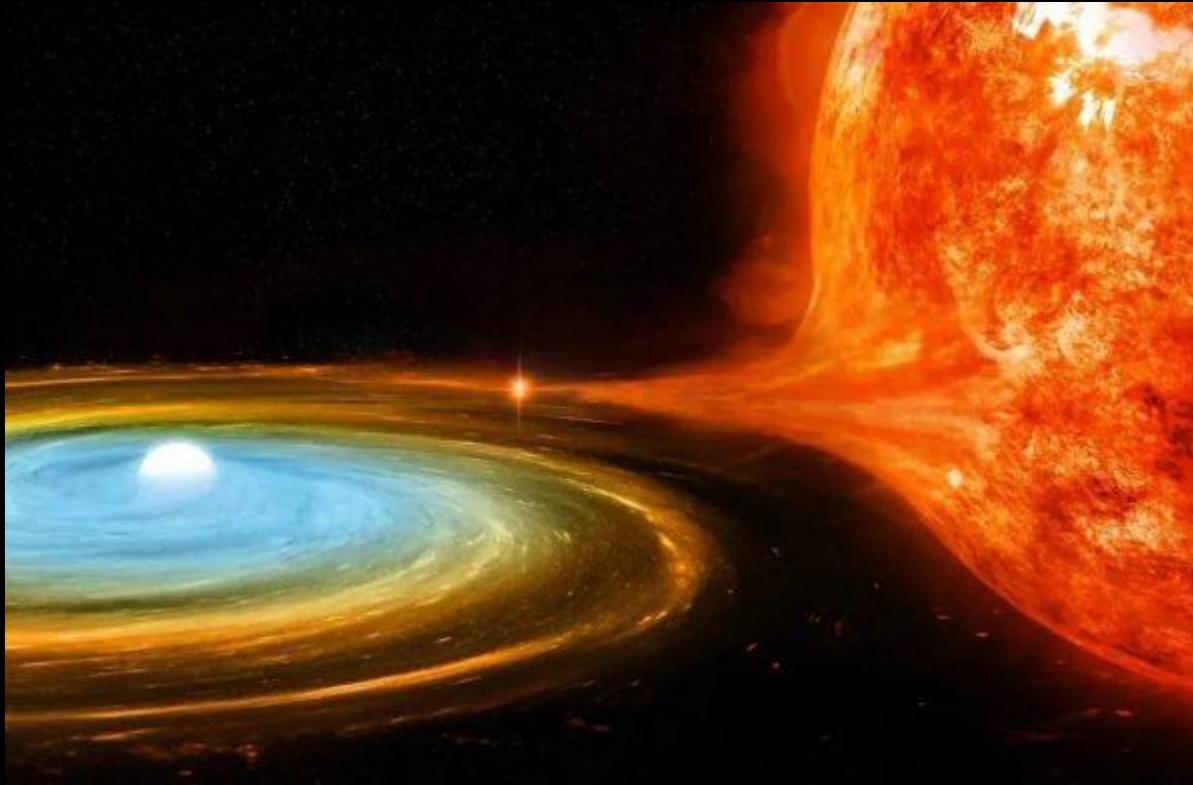
(C) Copyright 2024 CBAT
(CBET 5423)
2024 August 1

Daniel W. E. Green

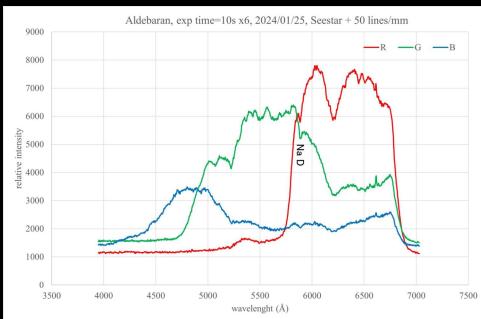
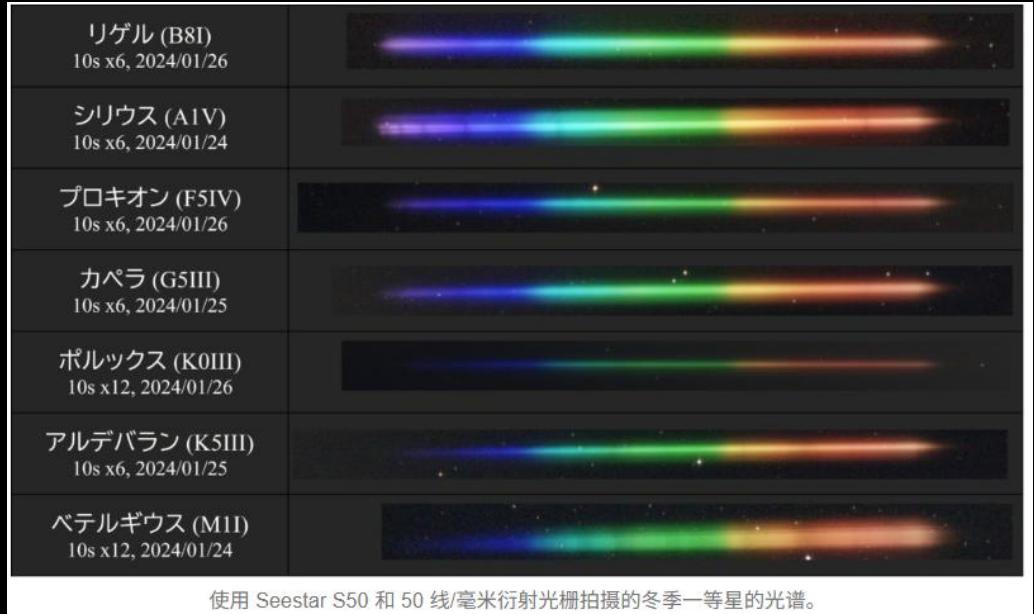
参与T Crb监测计划



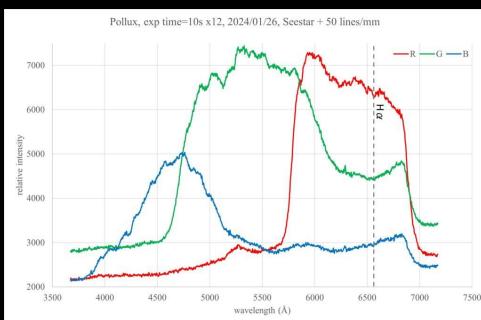
X Xingming



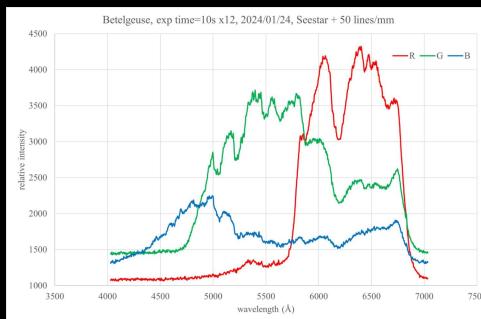
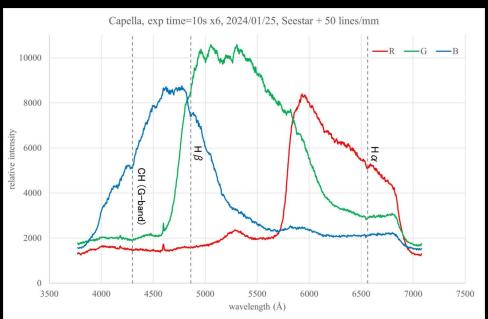
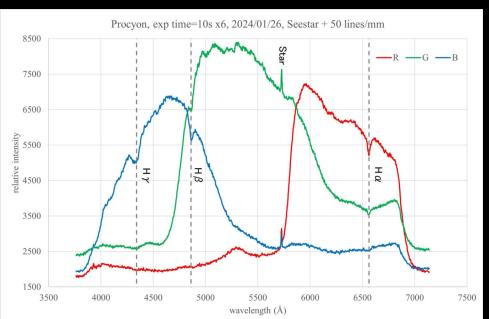
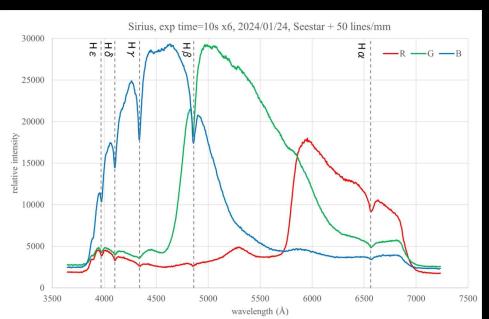
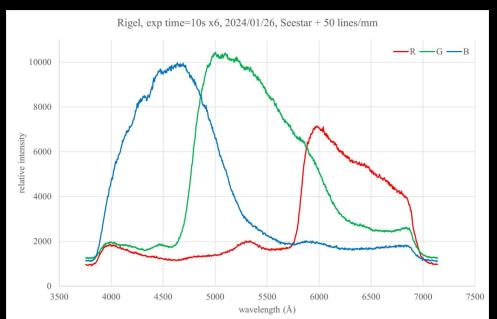
日本Imamura 今村和義博士使用Seestar S50进行光谱观测



毕宿五



北河三



参宿七

天狼星

南河三

五车二

参宿四

截至目前，全世界Seestar玩家规模已经达到约10万



天文社区
Astrolmg



天文社区 (Astrolmg) 正在建立公众科学板块

天文社区 探索 每日一图 摄影大赛 附近 评委 星球^{NEW} 体验移动端 搜索作品、帖子、星友 登录/注册

天文知识馆 · 2024-07-30

Initiative of T Crb Global Monitoring Network (Xingming Observatory)



Article from: Xingming Observatory Initiator: Xing Gao (高兴) About the Initiative To amateur astronomers with fixed observation sites, I now invite you to join the global monitoring network for the recurrent nova T Coronae Borealis (T CrB) hosted by Xingming Observatory (MPC Code: C42, N86, N88, N89). To join th... [阅读全文](#)

讨论 1 分享 ★ 2 ❤ 4

天文知识馆 · 2024-07-30

T Crb全球监测网络倡议 (星明天文台)



文章来自: 星明天文台 发起人: 高兴 关于倡议: 各位拥有固定观测设备的同好, 我现在邀请大家加入到由星明天文台主持的对再发新星北冕座T (T CrB) 的全球监测网络。对于加入的要求比较简单, 就是要求拍摄地点和拍摄设备相对固定, 能够做到对该目标的持续观测即可 (每个观测夜至少保证20张以上的图... [阅读全文](#)

讨论 5 分享 ★ 6 ❤ 9

创建于 2025-06-05 公开 13 星友 3 内容 10 讨论量

规则说明

欢迎来到这个汇聚热爱的星球! 请大家一起遵守以下规范, 共建和谐讨论空间。

- 文明交流
请友善发言, 禁止人身攻击、恶意辱骂、歧视言论或挑衅行为。理性讨论、互相尊重是我们共同的准则。
- 内容相关
请发布与本星球主题相关的内容, 避免无关广告、灌水、纯表情贴等干扰信息。保持内容质量, 共建有价值的讨论环境。
- 禁止违规内容
严禁发布以下内容:
 - 色情、暴力、血腥等违法信息
 - 虚假信息、谣言、不实宣传

回顶 ↑

Seestar 用户关于航天科学、地球科学的记录



星舰发射



火山爆发



运载火箭

Seestar S50跟随科考队远赴南极科考



南极的月亮



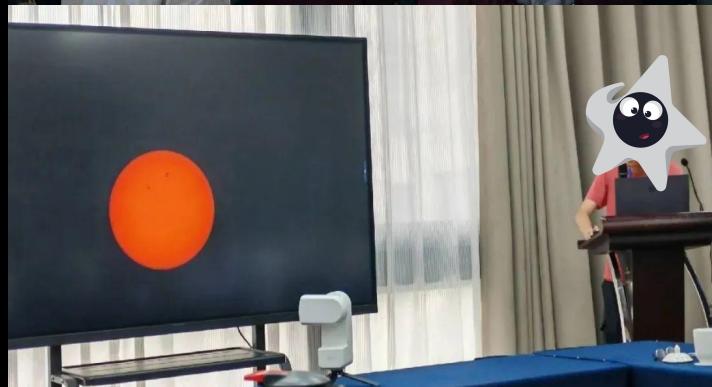
南极的太阳



俄罗斯科考船

来自常熟海虞高级中学的陈老师

用Seestar点亮学生的宇宙梦
让天文走进课堂、走进实践，也
走进每个孩子的眼睛与心灵。





仰望星空，永远不会成为过去式

哪怕世界喧嚣，我们依然向星辰出发



Craig Stocks
Seestar S50