Issue 32 – Nov 18, 2022

ExoClock Newsletter

Dear ExoClock participants,

Hope you are all doing well! October was a very productive month with November continuing to be very active, too, for the ExoClock community. In October we received almost 200 observations while November counts 110 observations so far, thank you everyone!

We would like to welcome the new members!

We send out a newsletter like this at the beginning of every month, while you can read the past newsletters, watch the past meetings, and have access to other educational material at:

www.exoclock.space/users/material

***We also organise meetings dedicated to new ExoClock members**. These meetings are held just after our regular monthly meeting. The beginner's meeting is usually held on the Friday after our regular meeting or the week after. In these meetings, newcomers have the opportunity to ask questions of any level related to the operation of the website, observations of transits, data analysis etc. Note that these meetings are not recorded.*

Finally, we have a Slack channel for more direct communication and if you want to join, please send a request at exoclockproject@gmail.com.

In this newsletter, we discuss:

1. Announcements

1.1 Remote observing call - update and page

In order to expand the project to more audiences we initiated the remote observing activity where interested participants can use remote telescopes to observe and analyse a transit. This initiative is aimed to people that don't have equipment, and priority will be given to them. We have already received a considerable number of applications, however the call is still open until the **30th of November**. This is a unique opportunity for a person that doesn't have a telescope to learn about exoplanet science!

Please share the link with interested communities:

https://www.exoclock.space/remote_observing

Schools can apply too! (Many have asked!)

1.2 Other working groups - update

This year, the efforts of the already existing working groups are continuing but we also want to initiate some further activities. The scopes of the working groups are beyond the main goal of the project, and we do our best to support them, while the main coordination is done by the ExoClock participants and partners.

Current working groups continuing in 2022-2023:

- CMOS WG
- Synchronous Observations WG
- Multi-colour Observations WG

To keep updated regarding activities related to these groups please join the dedicated slack channels. Send us an email to add you if you are interested.

Working groups starting in 2022-2023:

- Light-curve analysis WG
- Education WG

For these two working groups, registered participants will receive soon an email about the further steps. Separate meetings will be organised for these activities.

1.3 HOPS workshop - v3.1

As promised, we will hold a dedicated HOPS workshop where the software developer, Angelos Tsiaras, will present the latest version of HOPS. The workshop will be held straight after the monthly meeting at 17:00 UTC (18:00 CET) and **registration is required**.

By participating in the workshop attendees will:

- use the new version of the HOPS software to analyse exoplanet observations
- new users will have the chance to go through the analysis of an exoplanet transit and learn how to achieve the best results - the effect of reduction frames,

- experienced users will have the chance to see the new features included in this version of the software

The duration will be **around 2 hours** and at the end of the workshop, you will also have the chance to ask any questions you might have. The workshop will take place online via zoom, and the link will be circulated on the day of the event

If you plan to attend, please register at the following link:

https://www.eventbrite.com/e/exoclock-workshop-hops-v31-tickets-470067513587?fbclid=IwAR2aApbRZMEgvB1zbgwg4-vJSNABjLoad27StcY2WvFlOTuvD1kDhpg9k2I

1.4 HIP41378 f campaign

Thanks to all of you that observed the transit of HIP41378 f which was part of an international campaign organised by Alexandre Santerne (a researcher from the Laboratoire d'Astrophysique de Marseille).

The campaign was about HIP41378 f which is a planet with a very long duration transit (around 20 hours). This target has strong TTVs as it belongs to a multi-planetary system.

If you have observed the transit, please:

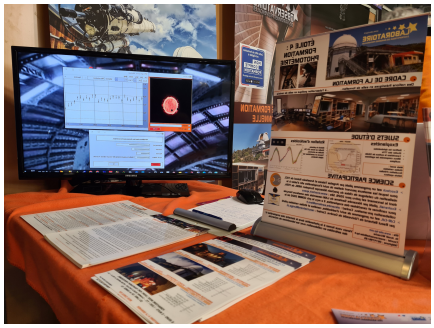
- Upload the final light curve to ExoClock, mentioning at the comments that it is part of the campaign
- It is very possible that you will not be able to upload, due to the quality of the data. In this case, please send us the lightcurve through an e-mail. Once we have some results, we will start working on them, in collaboration with Alexandre Santerne.
- Keep the raw data as they may be needed later.

We will keep you updated regarding the next steps as soon as we have updates.

1.5 Outreach activities

The ExoClock project apart from its research scope, aims to bring people together and expand the interest and knowledge on exoplanets. For this reason, it is important for our team to hold interactive sessions within the community through meetings, workshops -etc- but also to share the knowledge by giving presentations to non-ExoClock members. Recently, a few members participated in conferences and workshops by giving presentations with focus on ExoClock. Congrats to our national contact points Florence Libotte, Anaël Wünsche and Rodney Buckland for giving such presentations!

Photos by Anaël Wünsche presenting at the event “Les rencontres du ciel et de l'espace”, in France on the 13th of November.



Photos by Florence Libotte presenting on the congress "XIII Encuentros Transfronterizos de Astronomia Amateur" at Pamplona, Spain on the 15th of October.

Moreover, the BAA Exoplanet Division held an Exoplanet Online Workshop on the 12th of November. It was attended by several active ExoClock members including talks by Anastasia Kokori (ExoClock coordinator), Rodney Buckland (UK ExoClock national contact) and Roger Dymock (responsible for the BAA Exoplanet Division).

All recordings of the talks are available here:

https://britastro.org/2022/exoplanet-workshop-2022-videos

Upcoming activity!

Between the **25th and 27th of November** the Czech Astronomical Society (the operator of ETD - Exoplanet Transit Database) is organising the annual meeting of Variable Star and Exoplanet Section in a hybrid form. There are some talks in English presentations on **Saturday 26th at 12:30 UT.** The registration for both ONLINE and IN-PERSON (passive) participants is still open. Angelos Tsiaras (ExoClock coordinator) and Yves Jongen (active ExoClock observer) are invited speakers.

The program can be found here:

https://sites.google.com/view/54variablestarresearchmeeting/homepage

Register at the following link:

https://forms.gle/jGKBXhP1FqnMnBKD9

Planning to do or having done an ExoClock related outreach activity?

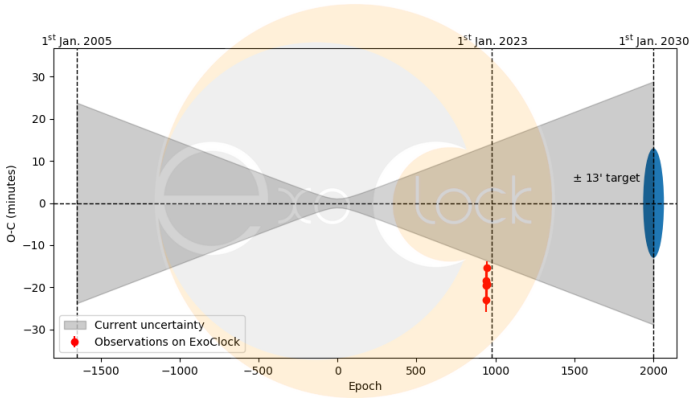
Please share it with us! We would love to know if you have done or plan to do an outreach activity related to ExoClock as we can both support you with material and share this with the rest of the community. Just send an email to keep us informed at: **exoclock.project@gmail.com**

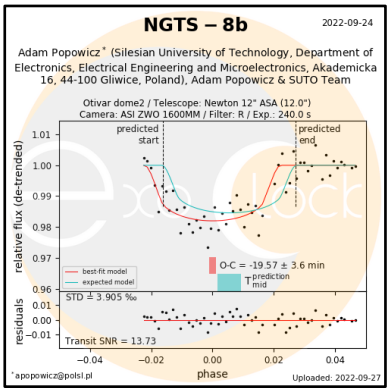
2. Highlighted Observations

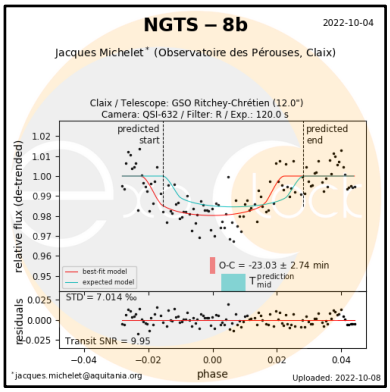
We would like to thank you all for the observations you contributed in October!

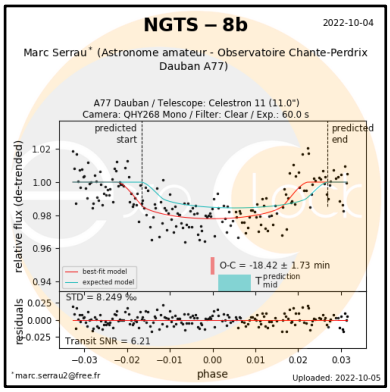
We have selected **NGTS-8b,** an **ALERT** target for which a shift of ~20 minutes was initially identified by Adam Popowicz, in September 2022. This drift was confirmed recently by five more observations by Jacques Michelet, Marc Serrau, Adam Popowicz (again!), Robert Roth and Vincent Boucher.

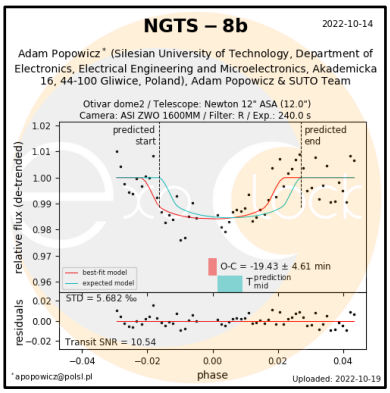
Congratulations for your efforts!

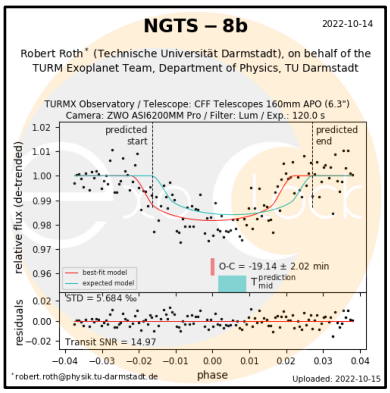


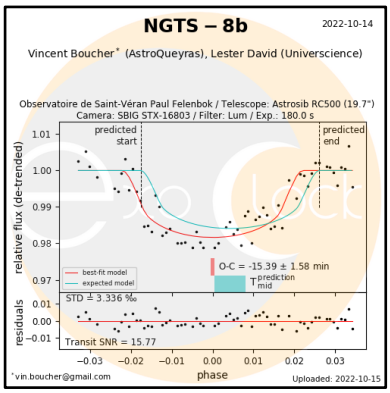












3. ALERTS

Thank you all for observing the alert targets! Please check your personalised alert schedule at:

www.exoclock.space/schedule/alerts

for the **ALERT** planets and if you get a clear sky and a long-enough night, you can try observing them! Currently for the upcoming month there are not many alert targets, however there is several **medium** and **high priority** targets, including new ones! The two following targets remain in the Alert page:

- TOI-1130c
- WASP-33b

Please remember that many targets were not in the alert list, before an unexpected shift was identified by you, the ExoClock participants. This highlights the importance of observing targets that are also of low and medium priorities.

Clear Skies,
the ExoClock team