



# ExoClock Newsletter

Dear ExoClock participants,

Hope you are all doing well!

***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](http://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](mailto:exoclockproject@gmail.com).*

**In this newsletter, we discuss:**

## **1. Announcements**

**1.1. Paper IV - Data Release D (Sept 2023) – Preliminary list of contributing observers**

**1.2. Remote Observing workshop – open to all!**

**1.3. Summer School for PhD students**

**1.4. Outreach events**

**2. Synchronous observations campaigns**

**3. Highlighted Observations**

## 1. Announcements

### 1.1 Paper IV - Data Release D (Sept 2023) –Preliminary list of co-authors

As the ExoClock community expands, the number of observers becoming co-authors also increases. This is of course great but big numbers take a lot of time. In order to be more prepared for our next publication we have released a preliminary list of the observers that will be co-authors. The list can be found here:

[https://www.exoclock.space/users/material/data\\_release\\_d\\_observers](https://www.exoclock.space/users/material/data_release_d_observers)

If you are an observer and you have contributed with observations in **2022**, please check if your name and affiliation are correct. You can change this information here:

[https://www.exoclock.space/users/my\\_author\\_information/](https://www.exoclock.space/users/my_author_information/)

We remind you that you can request co-observers to be added in the list. However, **remember that the rule is that each observer should have at least one observation.**

The list will be finalised in May 2023.

### 1.2 Remote Observing Workshop– open to all!

On Sunday the **26<sup>th</sup> of February at 16:00 UTC** we will hold a workshop for the use of remote observatories for exoplanet transits. The seminar will last maximum 2 hours and it is open to all interested people. Registration is needed through this link:

<https://www.eventbrite.com/e/exoclock-workshop-using-remote-observatories-for-exoplanet-transits-tickets-537888658457>

The workshop is introductory, and the following topics will be covered:

- Remote observatories: how they work and their costs
- How to write a proposal
- How to choose targets for remote observatories
- How to schedule the transits
- Brief demo of some platforms (e.g., Telescope Live, Las Cumbres Observatory)

### 1.3 Summer School for PhD students

Between the **12<sup>th</sup> and 16<sup>th</sup> of June 2023**, the Lake Como School of Advanced Studies will take place at the Lake Como, Italy. The school “Brave New Worlds II” is aimed to PhD students or postdoctoral researchers, and it will cover several aspects of exoplanets from observations to data analysis and interpretation. Giovanna Tinetti and Angelos Tsiaras are among the lecturers at the school. The applications are open until the **20<sup>th</sup> of March**. More information can be found at:

<https://gatr2023.lakecomoschool.org/>

## 1.4 Outreach events

In the ExoClock project, outreach and education play an important role in order to bring wider audiences closer to the field of exoplanets. Recently, we had the opportunity to visit the University of Siena where we interacted with the students, and we also gave a talk to the general community about ExoClock. It was a great event, and we always enjoy meeting in person members of ExoClock. Many thanks to Alessandro Marchini for his kind invitation at the University of Siena!



*Photos from our recent visit to Siena University where we were hosted by Alessandro Marchini, director of the Astronomical Observatory of the University of Siena. Alessandro is on the first from the right at the bottom photo.*

Let us know if you are interested in doing or plan to do an outreach activity related to ExoClock! We can support you with the organisation and provide some slides.

## 2. Submitting observations from public archives

In the previous newsletter we noted that we faced a challenge with the submission of data to ExoClock from public archives. We highlight again that the submission of multiple analyses of the same observation can cause confusion and bias the final ephemerides. After a dedicated discussion with the community, to handle this issue from now on, we decided to follow a special policy that includes the following points:

1. We will no longer accept observations from the *MicroObservatory* through the usual uploading page. If someone would like to submit their analysis of data from *MicroObservatory*, please upload them to AAVSO and/or ETD. If in the future we need some of the *MicroObservatory* datasets we will be able to access those through the NASA/Exoplanet Watch project or the ETD.

2. For other archives, like LCO, we will create dedicated teams, in collaboration with those archives in the future.
3. If someone don't have equipment and would like to contribute to the project, there are other ways through the working groups.
4. If someone would like to train with data, they are welcome to use the already available data on [www.exoworldsspies.com](http://www.exoworldsspies.com). We plan to upload and share more datasets from LCO and Telescope Live, which can be used by anyone interested in training with exoplanet data analysis. We will keep you updated!

### 3. Synchronous observations campaigns

Our previous open campaign was about TOI-2076b but due to bad weather conditions there were only a couple of observations. Thank you everyone for joining the efforts of the campaigns, we will continue this month with another challenging target. The next campaign is about the **high priority** target K2-198b

<https://www.exoclock.space/database/planets/K2-198b/>

which will happen **between Thursday the 23rd of February 23:43 UTC and Friday the 24th of February 04:40 UTC.**

(The observation occurs **the night between Thursday the 23rd and Friday the 24th of February**).

If you have a telescope between 8 and 16 inches, you can give it a try and observe the transit. Note that this transit will NOT appear in your scheduler so you will need to organise your observation yourselves. You can check the ExoworldsSpies scheduler to see if the transit is observable from your location (you should use a telescope aperture of 20 inches, otherwise the planet will not appear).

<https://www.exoworldsspies.com/en/scheduler/>

Remember that the exposure time should be longer than your overheads (dead time between exposures). To be able to have a decent exposure time you may need to use a filter -preferably Red Cousins- or to defocus your telescope.

You wouldn't need to do anything special in terms of the analysis, just upload the observations to ExoClock in the normal fashion. Please indicate in the comment section that the observation is "part of the synchronous observations campaign". Note also that your observation will not be published immediately as it will undergo a combined analysis with other data.

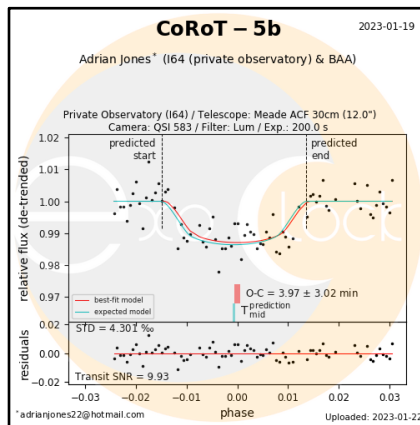
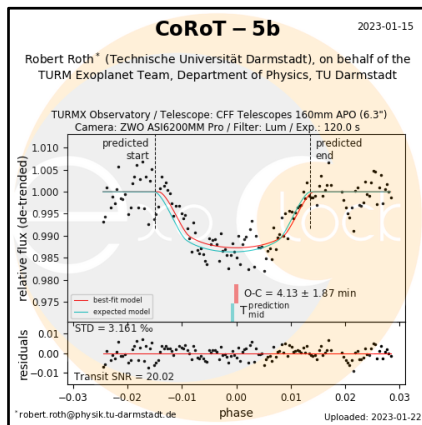
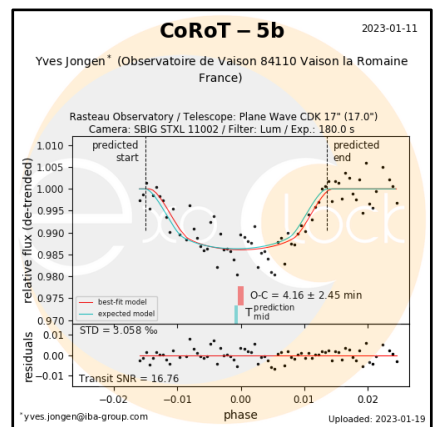
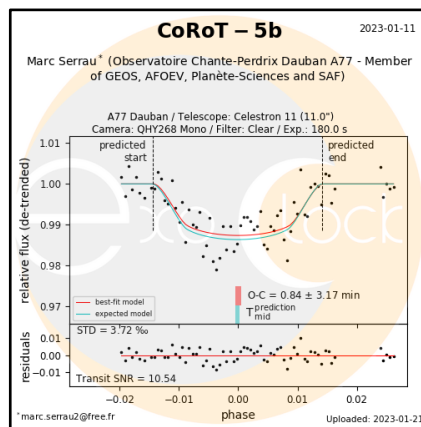
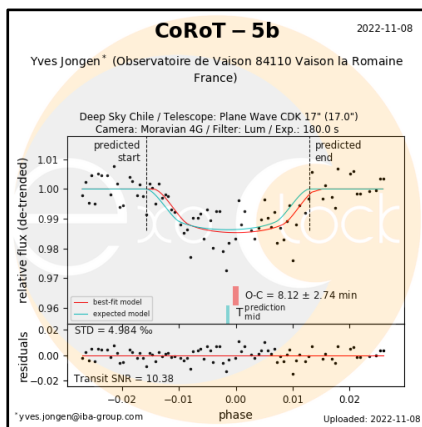
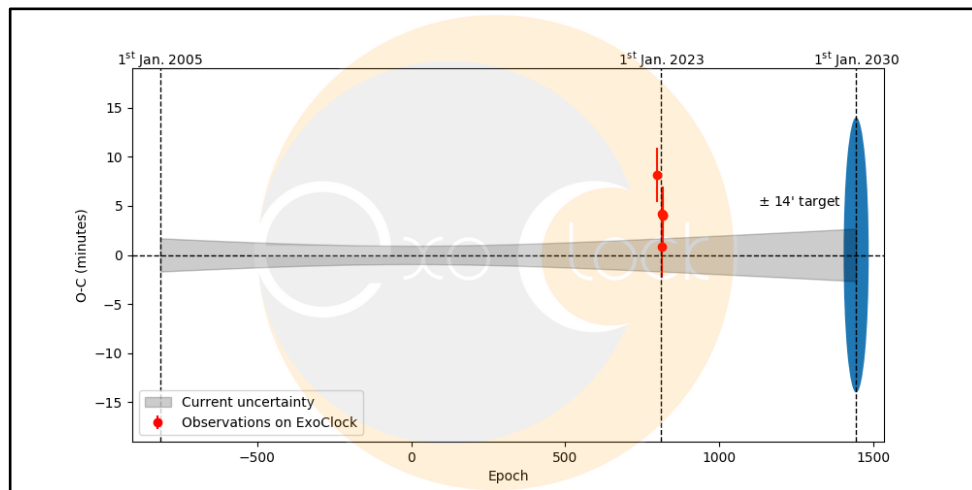
In the meantime, let us know if there are any questions.

### 4. Highlighted Observations

We would like to thank you all for the observations you contributed to the previous months!

We have selected **CoRoT-5b**, a target that has been flagged as high priority as it had no observations before. The first observation was submitted by Yves Jongen on the 8<sup>th</sup> of November 2022 and showed

a shift of -8 minutes. Thanks to more recent observations during January 2023, by Marc Serrau, Yves Jongen, Robert Roth and Adrian Jones, the planet is now low priority!



Many thanks to everyone for your efforts so far!

Clear Skies,  
the ExoClock team