

#####

Newsletter #55,, November 11th 2018

#####

**If the newsletter does not look good in your email, check the pdf [here!](#)**

**News from the front (Engineering) (by Roger Smith):**

ZTF cooling continues to work well after the recent refurbishment. Vacuum pressure is low and stable. Shimming of CCDs has been successful. Maybe S16 could have been a little better but overall it was a good result. We have been experimenting with using the hexapod to re-center the instrument as opposed to just tilting it, to see if we can improve the image quality at the edges of the field a little. Some modest progress has been made with 50% of field now falling within  $\pm 24\mu\text{m}$  so that surface height is now a small term in overall DIQ budget.

Recalibration and tuning of the focus and tilt feedback loop remains our biggest challenge for DIQ improvement. Recall that some time back direct measurements confirmed that the flexure induced translation and tilt were as predicted by the mechanical model and not the source of our problems. Progress had slowed on this topic due to absences of key personnel (Jury duty, grant proposals) and of course the down time for cooling system repair. The development of the independent guider mounted on the finder telescope is progressing well.

The number of pre-scan pixels was discovered to be one greater than the number we were discarding causing the last prescan column to show up as the first image column and the last image column to be moved to the first column of the overscan. The fix was simple and has been tested in the daytime. It will be offered in the next software release, perhaps as soon as Monday Nov 12.

Apart from the DIQ saga, there remain some opportunities to reduce overheads that we can pursue now that operations are back to normal.

**Caltech TDA postdoc positions**

Please find below ad for Caltech TDA postdoc positions:

<https://jobregister.aas.org/ad/cc922cca>

Mansi is the contact person if you have any question.

**News from AMPEL**

We have now initiated automatic propagation of good candidates from the extragalactic MSIP survey to the TNS. These can be found through the ZTF\_AMPEL\_MSIP bot.

**ZTF at EWASS**

Jakob Nordin, Kate Maguire, Mickael Rigault, Nadia Blagorodnova, and Steve Schulze submitted a bid for a symposium about transients at the EWASS 2019 (<https://eas.unige.ch/EWASS2019/>), which will take place in Lyon (France) from 24 to 28 June 2019. In total, they were awarded 6 x 1.5 hours, distributed over two days, which will be dedicated to infant SNe, rare transients, statistical samples of

transients, non-exploding transients (Galactic plane surveys, variable stars) and alert brokers. 1.5 hours are dedicated to the IAU Supernova Working Group.

### **News from working groups**

**EM/GW and Neutrino Counterparts:** “We are preparing for O3. Engineering runs in December/January and O3 begins February 2019.”

**Physics of Supernovae and Relativistic Explosions:** “The Supernovae and Relativistic Explosions working group are happy the alert streams are flowing again, and are trying to make the best out of the last week of high-cadence data for a while. This week we had another infant supernova discovery, ZTF18acebssa, where the same-night SEDM spectrum showed flash features. Followup with Swift and Gemini is underway”

**Solar System:** “(1)Hanjie Tan and Ting-Shuo Yeh, grad students from NCU, are joining the scanning team. Hanjie found not one but TWO NEOs in his debut week (2018VP1, 2018 VV3). Well done Hanjie! (2)As a result, ZTF's NEO counts for the calendar year of 2018 has just passed 50 even though we just started around mid-year. In September alone we had ~30 discoveries. Who'd like to take a bet whether we can pass 100 before the New Year?

(3)We have been working with the ML group to develop a deep-learning based approach to identify streaks, and a test version has just been put online this week, running in parallel with the current framework. It seems to work well so far, and we expect it to get better over time.”

### **Reminder: Mark your calendars, next team meeting is coming up:**

The Weizmann Institute is happy to invite everyone to the next ZTF collaboration meeting, which will be held at the Weizmann Institute for Science in Rehovot, Israel - March 12-15, 2019.

Please have a look at the [meeting website here](#), and please begin registering (no costs involved) at your earliest convenience so that they can have a head count estimate ASAP.

### **Reminder: IMPORTANT: We (still) need your help for the ZTF FAQs page! (and would love to remove this item from the newsletter)**

During several weeks, we have listed the questions that people across the collaboration would like to have in the [FAQs](#) page. Now it is time to add answers. Please help us fill the voids (and elaborate on the answers already there).

### **More reminders:**

- Public Alerts: There is a [link](#) to the alerts archive on the [website](#)!
- Please help us keeping track of all the available softwares! A preliminary list is available on the [twiki](#). Let us know if you are building a software which you think could benefit (or be relevant to) a large portion of the collaboration.
- **ZTF general slack channel:** Please join through this [link](#)!

- If you want to get access to the **ZTF data** via the IRSA interface, please request data access to the communication coordinators: [ztf.communication.coordinators@gmail.com](mailto:ztf.communication.coordinators@gmail.com)
- **Archive GUI** now ready! The interactive image search, filtering and visualization tool is now ready ().
- The **ZTF Twitter account** is now active! <https://twitter.com/ztfsurvey> Re-tweet @ztfsurvey!
- To use the **url shortener** (e.g. during telecons, talks, in emails), navigate to <http://zwicky.tf/shorten> (username: ztf password:16chips) and type in the URL you want shortened.
- The **Wiki page** is active! Check it out at <http://zwicky.tf/wiki> . To request access, please email us at [ZTF.communication.coordinators@gmail.com](mailto:ZTF.communication.coordinators@gmail.com)

*“Oh good, everything was back to normal - I was talking to myself again” Stephanie Klein*

Have a great and productive week!  
Thomas and Maayane