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

ZTF engineering news for week of 6/7/19 (courtesy of Reed Riddle):

The ZTF observing system continues to increase in stability, now regularly going several days without requiring human intervention. ROS continues to see improvement; the latest upgrade includes software to generate default FITS header information for all observations, to account for the rare times that a subsystem (usually the monitoring system) doesn't produce proper header information which causes IPAC processing to fail. The monitoring system is undergoing a rework to increase its robustness to hardware issues; ROS will be able to use this to better determine glitches and recover from them, as well as send out more specific alerts when the monitoring system detects values outside the normal limits.

Updates from the GROWTH Marshal (by Ashot Bagdasaryan)

"There is now a PS1 DR2 lightcurve link on the photometry tab of the source pages. It is in the form of a button at the bottom of buttons to the right of the light curve."

Avro schema update effective June 19, 2019

The alert packet Avro schema will be updated to include two new columns in the candidate block:

drb: RealBogus quality score from Deep-Learning-based classifier; range is 0 to 1 where closer to 1 is more reliable

drbversion: version of Deep-Learning-based classifier model used to assign RealBogus (drb) quality score

This will complement the existing Random-Forest-based score: rb, rbversion.

The Deep-Learning-based implementation is courtesy of Dmitry Duev of Caltech. Stay tuned for more information on how to use these scores when the new schema is deployed.

New schema files (v3.3) with an example avro packet and json equivalent reside under:

http://web.ipac.caltech.edu/staff/fmasci/ztf/avroschema_v3.3/

This update will be effective: June 19, 2019, 00hr UTC

News from working groups

Supernovae and relativistic explosions: "We continue to be at no shortage of interesting supernovae! Following our discussion on the two very long-lived stripped envelope supernovae ZTF19aalouag and ZTF19aanijpu, this week Emir Karamehmetoglu shared his results on broad-lightcurve SESNe from

(i)PTF. We are also excited that the first automatic trigger of an infant supernova directly from AMPEL to SEDM without any human intervention happened this week (for ZTF19aavotnx)."

Solar System: "Following DR1, we have been analyzing an interesting series of events at comet 240P/NEAT. The comet had been perturbed by Jupiter in 2007 to a lower perihelion distance orbit (2.5→2.1 au). This seems to have intermittently triggered new activity. The comet's intrinsic brightness has varied by a factor of ~7 in the last two orbits, with three distinct brightening events."

Galactic/M31: "We have started Caltech Galactic Plane observations (continuous cadence) this last weekend, and are gearing up to start Partnership Galactic Plane observations soon. We are also busy with planning the ZTF-TESS survey, which should start later in the summer."

The papers corner:

Please send us your published papers, they will be advertised here.

Please send Joy Painter, the Astronomy Librarian at Caltech, links to papers as soon as soon as they are published. They will be kept track of [here](#).

Reminder: Save the date! September 3-5: ZTF fall collaboration meeting

Please save the date for the fall ZTF collaboration meeting, to be held on the University of Washington campus September 3-5. Space will be available on September 6 for further breakouts and hack sessions.

Reminders:

- PublicAlerts: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
-**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 tohttp://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

"There is always a rainbow at the end of every rain" – Prince

Have a great and productive week!

Thomas and Maayane