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Newsletter #36, June 29th 2018

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If the newsletter does not look good in your email, check the pdf here!

Time lapse video of ZTF in action:

COO engineer Justin Belicki has been working at Palomar this week and had the opportunity last night (UT20180629) to capture an ~ 5-hour time lapse of ZTF in action. Find the video here (on the twiki in ZTF PR): http://noir.caltech.edu/twiki_ptf/pub/ZTF/ZtfPR/DSC_8860.mp4

News from the front (engineering and QA):

The shutter controller has been moved to reduced RFI. More focuser tests are under way. The upgrade to the filter exchanger latches has been postponed to around full moon in August - this may involve running in single filter mode for one or more nights. More details nearer the time.

Low Galactic latitude Zooniverse campaign is on (HELP needed):

Richard Walters has set up a low Galactic latitude campaign so that the training sample there can be improved, Please classify!:
https://zooniverse.org/projects/rswcit/ztf-rb-project/
This is still an internal (to ZTF) campaign. We have not had time to change the tutorial, so ignore the extragalactic examples there.
Constraints used (in addition to Frank's stringent MSIP cuts) are:
|b| < 10, Mix of RB scores:
~500 with RB < 0.2 (should be really bogus)
~500 with RB > 0.8 (should be really real)
~3000 with RB between 0.3 and 0.65) (this is where we need more discrimination)

News on AMPEL:

There will now be a consistent stream of candidates ingested into the AMPEL test program in the Marshal. Briefly, this is the CLEAN_HU Ampel channel aiming at providing a sample of trustable transients with little stellar contamination. To be accepted by the Ampel filter, an alert must have at least one previous detection and be a positive subtraction. Mild requirements on image quality, real-bogus value and SGcore are also in place (for the latter very high sgscore1 and small distpsnr1). Rejection of likely stellar transient is done using the GAIA DR2 catalog (via catsHTM) to inspect proper motion and parallax of objects in the vicinity of the transients. Let us know if you wish to be added to this program. Tests on public alerts from recent nights show an acceptance rate of roughly 0.5%.

ZTF summer school:

A preliminary agenda and local details are now up for the summer school. Please continue to advertise it at your local institute or among collaborators, colleagues, etc.

Reminder: Last chance to sign up to the next collaboration meeting (deadline is 1st of July!)

We would like all of you who are planning to attend the meeting in August to sign up ASAP. Directions to near-by hotels have now been added to the registration page by the organisers:
http://agenda.albanova.se/confRegistrantsDisplay.py/list?confId=6506

In preparation of the collaboration meeting, send us the questions you would like to discuss:

To help the organisers manage the discussion on the most important topics, please let us know if you have the answer to/have been investigating already one of the above questions, and if there are other important subjects you find particularly important to discuss:

1. What is the RB distribution of transients saved by scanners.Where can we put the Cut?
2. How good is the Photometry? Comparisons to other pipelines or other surveys, for different magnitudes slots.
3. How complete are we? Do we find all/some/most of the SNe reported in ATELs?

News from working groups

SNIa cosmology: "We are currently collecting the statistics for all SNe Ia that we have found so far to assess our selection effects and a first (very preliminary) Hubble diagram."

SNe and relativistic explosions: "The Supernovae and Relativistic Explosions group continue to improve our filters, and again had multiple triggers for young supernovae this week. Otherwise we are busy working on our first round of science papers."

Galactic/M31: "We continue our quality assessment at low Galactic latitudes and find very positive results, relative photometry is very stable."

Reminder: Zooniverse field guide: Help us help you

We are in the process of building a field guide that non-experts can use to help us improve RB scores. Based on reals and bogus candidates marked so far, Richard has created two webpages:
http://skyvision.caltech.edu/ztf/zoo/rb/?type=real
http://skyvision.caltech.edu/ztf/zoo/rb/?type=bogus
We need only a few examples from each science group.
On the right hand side of each candidate you will find a "Send Message" button. If you find candidates representative of your science working group, please click the corresponding "Send Message" button. It will pop-up a dialogue box - please annotate it saying if it is a good/bad example of your science case, a line or two of why you think so, and your name.
If this helps us get twenty good reals, and twenty good bogus examples, we will be in business soon to get help from outside to create a good/large training set for the ML classifiers. If you have questions, email us at aam@astro.caltech.edu
For those of you who already sent some examples, thank you very much!
Note: In some cases we may need to zoom in to just the central few pixels to improve contrast, and we are exploring that possibility. For now, ignore all the bad ones, and just pick a few good ones per science case.

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

-**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

"It was really smooth night. I wish all my nights were like that" (R. Ramirez)

Have a great and productive week!
Thomas and Maayane