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Newsletter #15, 2nd of February 2018
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Last news from the front (Engineering and Data Quality status):

- The instrument went back to the telescope and we are collecting photons again.

- First images suggest that the image quality has improved and the contamination is gone, close monitoring is ongoing

- Filter exchanger was successfully installed but more testing is needed

- A minor change has been implemented in the flat-field acquisition procedure. Individual monochromatic flats are now being taken and combined digitally into a master, multi-color flat.

Help with Real-bogus training:

The ML group continues to collect real-bogus classifications from volunteers. This is a very important task for the real-bogus training and we need as many participants as possible. So if you would like to have some fun clicking beautiful "reals" and "beautiful" boguses, please sign in and start the fun!
https://www.zooniverse.org/projects/rswcit/ztf-rb-project

European-friendly machine learning meetings (Reminder)

The ML group are planning a bi-weekly telecon at an hour that suits the European and Israeli members, so that everybody can join! The meetings will be hold alternatively at the time that will get selected and at 2 PM on Thursdays. Please fill in the doodle that they have made available.
https://doodle.com/poll/yvt23xv2p99b797z

News from University of Washington

"The UW alert processing team has implemented a prototype alert stream based on the Kafka technology and using some of the commissioning data. We are starting to investiThe gate how users might be able to filter this stream. Our team has also started working on a database tool to run offline analyses on the accumulated ZTF dataset (efficient clustering, light-curve classification, cross-matching, etc.); those who have used LSD on PTF data will recognize some similarities."

News from working groups

Physics of Supernovae and Relativistic Explosions: "The Supernova and Relativistic Explosions working group is gearing up for the ZTF transient "test run" starting next week once the camera is back on sky, and look forward to testing all the machinery with real data!"

Solar system: "Quan-Zhi attended the ML weekly meeting and reported the progress in streaks real-bogus training. A new streak ML model has been implemented as ZTF is back on sky. We submitted two abstracts to the meeting of the Asia Oceania Geosciences Society (Honolulu June 2018) highlighting ZTFs solar system surveys and its early results on comet observations"

Stellar: We started to discuss filters for Galactic transients such as CV outbursts. We will join the mini-survey with a focus on Galactic transients.

GWs and neutrinos: "The ToO marshal is being tested with injected GCN alerts. Two neutrino doublets (=two events within 100sec) were detected by IceCube in January. One triggered Swift observations, but no obvious counterpart was found. Progress is made in iPTF rate studies based on injection of fake transients."

AGNs and TDEs: "The ZTFbh SWG had a productive telecon this week. We discussed the Science Validation PSF and aperture catalog photometry in the Stripe 82 fields, and also looked at some examples of difference imaging from the IPAC pipeline for an extended galaxy with a known AGN in the field. We heard a presentation from Umaa on the Real/Bogus Machine Learning Classifier, and gave some suggestions for improving the training set for nuclear transients by including variable AGN. We heard about the mini-survey for transients starting next week, and are excited to vet and follow-up transients, and examine the R/B scores. Our next telecon will be on Valentine's day, and we hope to be discussing ZTF transients from the week before!"

Machine Learning group and zooniverse: "The ZTF ML group is preparing for science operations to resume next week. We are in the processing of collecting more training data (both real and bogus examples) for a new classifier that we plan to deploy on Tuesday. As we deploy new classifiers, we will be suggesting a detection threshold that science teams can use to help filter out from their streams those objects we are confident are not astronomical sources."

Reminders:
- The registration for our ZTF team meeting (Caltech, March 19-21, 2018) is now open! Please use the link below: https://goo.gl/forms/TCYa5rhFFdxv07rk2
- Archive GUI now ready! The interactive image search, filtering and visualization tool is now ready (see previous newsletters).
- 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 to the wiki page: please email us at ZTF.communication.coordinators@gmail.com

"to infinity and beyond" (Buzz Lightyear)

Have a great and productive week!
Thomas and Maayane