

Newsletter #29, May 10th 2018
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Help needed with ZTF monitoring:

We would like to reestablish system monitoring through the night again for the next few weeks at least. There have been a few nights recently where issues have arisen in the second half of the night after the US has gone to bed that could have been caught and addressed earlier if we had had monitoring in the second half. The monitoring procedure is described here:

http://noir.caltech.edu/twiki_ptf/bin/view/ZTF/WatchingP48

If you are available to participate and be included in the schedule, please sign up at the Doodle:

<https://doodle.com/poll/fticdw8zihkmr46a>

For further discussions, there is now a Slack channel: #monitoring-ztf

MSIP alert usage:

We intend to start the public stream of alerts from MSIP programmed survey fields on June 4, Monday. Prior to this date, MSIP alerts can be reviewed for QA purposes (verifying alert quality, tuning marshal filters, defining training sets for RB, etc.). If a MSIP alert is rated as scientifically interesting during this period (deserving of followup) then it needs to be made public via TNS or ATEL before any followup observations can be taken. The date on which the alerts will start will be confirmed as we get closer to this date. Once the stream goes public the partnership may use MSIP alerts without restriction.

News from GROWTH: Tuning your marshal filer

There has been a request for tools to help tune filters for science programs. Since the marshal framework applies the filter in real-time at the time of ingest, it is best for the tuning to be done externally.

Sjoert Van Velzen has kindly written and shared some code on the ZTF github to allow you to copy-paste your marshal filter and apply to a set of test avro packets. Sjoert's code is here:

<https://github.com/ZwickyTransientFacility/marshal-playground>

There is a readme file that explains how you can loop over alerts, apply the GROWTH marshal filter and see the results in a prospectus.

For your test set of avro packets, here are the alerts from the night of May 10th for you to run the testing of the filters: <https://skipper.caltech.edu:5001/s/ipmaf8WMyZqTzFB>

Overview papers: invitation to join and send comments by the 16th!

Matthew Graham and Eric Belm are preparing a pair of instrument papers: one describing the overall ZTF system, and one describing the expected science returns. (These parallel the Law+2009 and Rau+2009 PTF papers.) *They invite all interested members of the ZTF collaboration to join the author list for these two papers.*

By May 16, please add yourself (if you are not already listed) here :

<https://www.overleaf.com/16064156jmymzmzpmxtv#/61347954/>

The System Overview paper (Bellm et al.) is drafted; **they would welcome your comments by May 16:**

<https://www.overleaf.com/read/thtcbvyjtjgc>

The Science Overview paper (Graham et al.) is in progress; see

<https://www.overleaf.com/15421423zmnzpgggkzhz> for its current state. If you would like to contribute additional text please contact Matthew.

These two papers will be supplemented by more technical papers focusing on various instrument subsystems.

You can keep track of progress on all of the instrument papers here:

http://noir.caltech.edu/twiki_ptf/bin/view/ZTF/ZtfPapers

Please sign up to the next collaboration meeting:

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>

Reminder: 2018 ZTF summer school:

The registration is now open for the 2018 ZTF Summer School. Please advertise at your institutes.

<http://www.ztf.caltech.edu/page/summer-school>

News from working groups

Machine learning: "Cuts on parameters based on all detections for vetted real and bogus objects are being implemented in the pipeline. This should reduce the false alerts significantly (not all are artifacts, some are bad subtractions of variables, and other likely bad galaxy subtractions). We do need more eyes on zooniverse campaigns though. **Last week there were under 150 classifications posted for CCD4. That is less than 1 per person per day (= less than a minute per week per person).** CCD 5 data are now in. **Please classify.** Let us know if there are any issues."

SN Ia cosmology "The Cosmology SWG has a new telecon time slot: we are now meeting every other Wednesday at 16:00 CET, starting next week."

AGNs and TDEs: "The ZTFbh SWG is trying to understand and abide by new MSIP data policies that are being implemented in this transition stage between "alert commissioning" and "public alerts". We are VERY eager for the alerts to be fully distributed to the public, as soon as possible, so we can have unrestricted access to the MSIP alerts stream. Given the large impact that these policies have on our SWG, we hope for better communication from the ZTF project in the future. However, we are hopeful that soon (June 1st?) the MSIP alert stream will be public, and these issues will go away. On a more positive note, we discovered another CLAGN, and are continuing daily scanning of the nuclear transients that pass our GROWTH filter. We are still searching for our next TDE ("Jon Snow")."

SNe and relativistic explosions: "The Supernovae and Relativistic Explosions group have been working on our contributions to the ZTF Science objectives paper, and continue to search the alert stream for interesting transients. This week we found our very first superluminous supernova, ZTF18aaisyyp. We

have also started publishing bright transients from the MSIP stream to the TNS -- see ATel #11615 for details.”

Solar system: “<https://zwicky.tf/1ux> This movie shows the impressive ion tail of comet C/2016 R2 acquired with ZTF g'. Four nights, each repeated 5 times: 2017 Nov 11, 2017 Dec 23, 2018 Jan 13, 2018 Feb 19. Changes in the morphology of the ion tail reflect temporal variations in the comet's activity and in the local solar wind conditions.”

Reminders:

- 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

“We are monitoring. That’s our duty” (Generoso Senga)

Have a great and productive week!
Thomas and Maayane