

Newsletter #40, July 28th 2018
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If the newsletter does not look good in your email, check the pdf [here!](#)

News from QA:

The corrector was cleaned recently; analysis to determine cleaning needs/schedule is ongoing.
Also some analysis of occasional poor DIQ in one corner quadrant is ongoing.

Astrometry module update:

Starting with the 2018-07-21 night, a parameter change in the astrometry module has corrected an issue with obtaining good solutions in images with very high stellar density. Before that date, a significant fraction of images in the densest fields, particularly in programid=3 (Caltech time) Galactic deep drilling fields, were not successfully processed and were not archived or used in alert production. On nights when the highest stellar density fields were observed, as many as half of programid=3 images were affected. We are making plans to reprocess those fields observed before 2018-07-21 that were most impacted.

ATel/TNS publication policy:

Just a quick announcement that the Physics of Supernovae and Relativistic Explosions SWG has developed an ATel/TNS publication policy which has been accepted by the Publication Board. This document provides guidelines for timely yet orderly publication of SNe/explosive transient ZTF discoveries in ATels and on the TNS. The policy has been incorporated into the overall Publication Policy document as Appendix B.II: https://docs.google.com/document/d/1PhVCEVIUuqOB_W1puWi4xxuNm-LW7hNFRH-WohVlrkc/edit

List of telecons: add yours if it is not there!

Matthew constructed a master list of all regularly scheduled ZTF telecons at: http://noir.caltech.edu/twiki_ptf/bin/view/ZTF/ZtfDiary

If you run a telecon and it's not there, please put it in!

Machine learning: New Real Bogus classifier

A new RB classifier has indicated a marginal improvement in classification for low Galactic latitude objects. We have received over 3000 classifications for the current low Galactic latitude campaign (thank you!), and this should further improve the classification (next version). The MSIP campaign is almost ready with whatever examples we have received. We will announce it internally before the team meeting, and demo it during. If you have more examples, do send them to us (good examples with one-liners saying why they are good. Similarly for bogus examples). We will also have a focus ML session at the team meeting. Let us know if you want us to emphasize some aspects of ML.

News from working groups

Galactic Science/M31: “We have finalized our strategy for the upcoming high-cadence Galactic Plane observations and looking forward to see the data.”

SNe and relativistic explosions: “Now that the Supernova and Relativistic Explosions group is finding young explosions regularly, we are working on ways of becoming more efficient, including formalizing our Swift triggering policy and prioritizing improvements to our scanning routines and marshal wishlist. Otherwise we are planning for the Stockholm team meeting, and looking forward to catching up with everyone in person soon!”

Reminder: Lightcurve GUI and Partnership matchfiles are available now

The lightcurve GUI to retrieve archival lightcurves is online now. The lightcurves are based on the matchfiles and hence on reference image coverage which will gradually improve.

* go to: <https://irsa.ipac.caltech.edu/Missions/ztf.html>

* login using your IRSA registered account at top right. You need to have access rights to ZTF. If you do not have this send a request to the ZTF communication coordinators

* Click on “Catalog Search” icon.

* select the ZTF Objects Table -- this enables you to query targets ingested from the matchfiles (reference image catalogs used to seed the matchfiles); you can filter on the collapsed-lightcurve metrics if needed; you can also upload a table of RA, Decs.

* lightcurve metrics are returned with an overlay on a 2mass image (this will be replaced by the ztf ref image)

* send all these objects to the Time Series tool by clicking on the “To Time Series tool” icon.

* you will be presented with a list of all the object IDs from which you can either download all the lightcurves in one concatenated ascii table, OR, click on any objectID to send it to the Time Series viewer.

* on the Time Series viewer, you will see a sliding window of epochal image cutouts and a “Period Finder...” icon. Click on this to phase the lightcurve using a set of trial periods. You can instead click on “Calculate periodogram...” to help find the period.

* Documentation is at: <https://irsa.ipac.caltech.edu/onlinehelp/irsaviewer/#id=preoverview>; all this is shared with other projects.

*** A caveat at present is that large cone searches (>~ 5 arcmin) take a long-term to return lightcurves. This is being looked at.

In addition to the lightcurve GUI, the raw partnership only matchfiles are available too. If you would like to get access please send a request to the ZTF communication coordinators. Documentation on the matchfiles can be found in the data system document linked from: <https://www.ztf.caltech.edu/page/technical> (from the linked PDF, see Appendix C, page 92).

We would like to emphasize, that besides the matchfiles and associated documentation no additional support can be provided and we encourage the partnership to use the lightcurve GUI to retrieve archival lightcurves.

Reminder: 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)

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

"If you saw a heat wave, would you wave back?" (Stephen Wright)

Have a great and productive week!

Thomas and Maayane