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Newsletter #23, March 30th 2018  
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**ZTF summer school:**

We will have our first ZTF summer school between July 18th - 20th. Help is urgently needed. Please email Matthew Graham ([mjg@caltech.edu](mailto:mjg@caltech.edu)) if you can and want to help.

**ZTF webpage:**

The ZTF webpage is now online. Some information and news can be found on the webpage, though some sections like publications and outreach are still under construction.

<http://www.ztf.caltech.edu/>

**News from working groups**

**Machine learning:** "Alerts are now being generated with  $\text{SNR} \geq 5$ . That will lead to more bogus candidates besides good younger transients. Members are starting to mark bogus transients through transient marshal. We are starting specific campaigns through zooniverse as well. The current set, for instance, has  $5 < \text{SNR} < 15$  candidates with only positive difference images. The SG separation should get included next week. We still need to improve the tutorial, and for that we need, from each Science Group their examples of reals and bogus. Please send those to Ashish Mahabal [aam@astro.caltech.edu](mailto:aam@astro.caltech.edu)"

**Physics of Supernovae and Relativistic Explosions:** "In addition to working on our telescope proposals for the upcoming deadlines, the Supernovae and Relativistic Explosions group are working on our various marshal filters, scanning the general science validation stream with the new lowered S/N threshold to help the ML, and searching for interesting transients to follow-up. Ofer and Jesper are coordinating the scanning; please get in touch with them if you are not a member of our working group but interested in helping out."

**Solar system:** "IPAC pipeline now tags comets, we are testing ZMODE to see how many comets get detected. Keep working on measuring the known asteroid recovery rate of findStreaks. Just for some weekend fun, below is the new hyperbolic comet C/2018 C2 (Lemmon) detected by ZTF on 2018 Mar 28."



**Multi-messenger:** "The group revised their ToO proposals on short GRB and neutrino follow-up aiming to reduce the requested ToO time. 5 triggers are granted to both the neutrino and GRB follow-up programs for a pilot study. After follow-up of three triggers the programs will be reviewed and the impact on other science programs will be evaluated. The group is planning to submit 3 NOAO proposals for follow-up with LCO, Gemini and DECam".

**AGN & TDEs:** "The ZTFbh SWG have a schedule for daily scanning of alerts that pass our "Nuclear Transients" filter in the GROWTH Marshal. \*\*Note that no alerts have come through our filter or the ZTF Science Validation filter since the team meeting at Caltech last week.\*\* We would really like a daily IPAC alerts statistics report, so we know if this is an issue with the Marshal, our filter, or if simply no alerts were generated on a night due to poor weather or lack of references. On a more positive note, we have our first TDE candidate

independently discovered by ZTF on March 6, 2018 and classified with SEDM. We have triggered multiwavelength follow-up programs with Swift, HST, Gemini, XMM, and VLA. This TDE was also discovered by the PS1 survey, and spectroscopically classified by the SCAT survey.“

**Galactic/M31:** “The Galactic group is finalizing observing proposals for various facilities. We continue our effort to provide feedback to IPAC on the commissioning matchfiles. Additionally, we have started to work on filters for Galactic transients. A filter has been setup for young stellar object outbursts and we currently work on a filter for dwarf nova outbursts.”

### **Reminders:**

- 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](mailto:ZTF.communication coordinators@gmail.com)

**Special Easter and Passover quotes!**

*“Create each day a new”* (Morihei Ueshiba)

*“I prefer dangerous freedom over peaceful slavery”* (Thomas Jefferson)

Have a great and productive week!

Thomas and Maayane