If the newsletter does not look good in your email, check the pdf [here](#)!

Try your luck with the ROS observations betting pool!

We are coming into the longest nights of the year, when ROS has the chance to observe the maximum number of targets it can do in the course of one night. The max that we can do theoretically is easy to calculate, as ROS takes about 40s to observe a field adjacent to the previous one. The system doesn't always observe adjacent fields though, and there are filter changes, weather delays, and longer observations that whittle away the possible number of completed observations in a night. And, we will likely have plenty of nights where we only get a little bit of observing in due to the weather.

For the second year, **a betting pool is now open for everyone to guess at how ROS observing will work during the winter.** There will be two competition categories this year to guess at the performance of ROS between December 10 and January 7 (dates in UT):

- Maximum number of completed observations by ROS in a single night

- Minimum number of observations completed by ROS when it opened the dome and took at least one observation

The first item is straightforward, guess the most science observations in one night (hint: ROS completed 975 science observations in a night near the end of November). The second is a bigger challenge, as it will really depend on weather allowing ROS to open and observe a little but then shut the system down…it could be anything from 1 to a few hundred. Note that 0 is not an option, we will have nights we are completely closed so picking 0 would make this too easy.

These are for observations that ROS completes successfully, not for data processed through IPAC (as IPAC includes calibrations), and the people with the closest guess (above or below) to the two categories will win. **Send your guesses to Reed** (riddle@caltech.edu) **by December 18th**; he will announce the winner after the holiday season (and he will not be participating in the pool to keep it fair). The winner will receive **bragging rights** for their ability to anticipate how much data ROS can take in…Thomas Kupfer came within 9 of the maximum observations last year, see if you can do better!

News from Fritz (Ari Crellin-Quick):

This week we have completed updates related to spectra normalization, adding an in-browser modal table of source photometry, expanding news feed categories, improvements to source page data rendering, making the default scanning page date range the past 24 hours (& using UTC), data permissions fixes, emoji parsing in comments, paginated & filterable group user tables, and streamlining API responses for improved performance, among many others. Among the many in-progress items are further improvements to plotting, scanning page filtering, and the news feed.

ZTF Data Release 4 (Frank Masci)

ZTF will have its fourth Public Data Release on December 9, 2020. This release builds upon the third data release to include products from (i) an additional 6 months of survey operations from the public portion of the survey, giving a total observation span of March 2018 - June 2020, and (ii) data acquired under private survey time during the first ~15.4 months of the survey, spanning March 2018 - June 2019. The private surveys include observational programs awarded by Caltech and performed by the ZTF collaboration.

The products include ~18.5 million single-exposure images, ~144,000 co-added images, accompanying source catalog files containing ~296 billion sources extracted from those images, and ~2.7 billion lightcurves constructed from the single-exposure extractions. Note: transient alerts extracted from difference-images commenced public distribution on June 4, 2018. These alerts continue to be generated and distributed as the public survey proceeds.

A guide to ZTF Data Release 4, with data access instructions and supporting documentation is available at https://www.ztf.caltech.edu/page/dr4

News from working groups

Multimessenger: "We followed up last week's high-energy neutrino IC201130A, but unfortunately did not find anything interesting after two nights of consecutive observations."

Galactic and M31 Science: "Christoffer gave a hands-on tutorial of Fritz during our meeting, and we are gearing up to use Fritz more seriously. People are using the ML classifications, and we are working on identifying any variable classifiers for which are not working good enough. ZTF DR4 is out now, as well as Gaia eDR3. The Gaia update has in some cases been quite useful. We are checking DR4 at the moment, more news next week."

Physics of supernovae and relativistic explosions: "Maxime works on the progenitors of Type Ia SNe and what mechanism leads to their explosion. To address these questions, she uses the ZTF Year-1 sample presented in Yuhan's 2019 paper and models developed by Mark Magee. Among the 87 objects in her final sample, ~75% are well fit by the Chandrasekhar models where the nickel distribution is extended and not localized to a small region in the white dwarf. About 15% of the 87 Type Ia SNe show evidence for an excess of radiation at early times. It is difficult to connect this feature with a single process or mechanism. Stay tuned for her paper."

Reminders:

- PublicAlerts:There is a link to the alerts archive on the website!

- Please help us keep 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's all for fun, but don't get me wrong -- it's about bragging rights for 364 days a year."
- Randy Moore

Have a good and productive week!

Erik and Igor