

Newsletter #65, January 20th 2019

If the newsletter does not look good in your email, check the pdf here!

AAS talks

If you gave a talk at AAS last week on ZTF results, please send Matthew Graham a copy of your slides.

News from working groups

Machine Learning: "The Zooniverse project has gone through all the changes that they suggested and is ready for official launch. They will be announcing it to their volunteers, and simultaneously ZTF will tweet about it. A lot of discussion boards have been created to engage the volunteers. This is where they will pose questions if they are stuck, or if they find something noteworthy. It will be great if ZTF members keep an eye on things and respond on any of the boards that are of interest to them. We will know the official URL soon and will convey it."

Solar System: "- To kick off the new year -- we found a very rare near-Earth asteroid, 2019 AQ3, on Jan 3. The orbit of AQ3 is almost entirely within the orbit of Venus -- among 800,000 known asteroids, only 2 or 3 have orbits like this! It also turns out that AQ3 breaks a record -- it is now the asteroid with shortest orbital period. So, a good way to start a year.

- ZTF detected what is likely a collision in the asteroid belt -- a km-sized asteroid known as (6478) Gault suddenly turns into a comet some time in mid-November. Please take a look at a very cool animation made by Frank Masci: <u>http://web.ipac.caltech.edu/staff/fmasci/ztf/movies/6478Gault_movie.gif</u> The Solar System SWG is mobilizing resources to follow up this event. Also, a cool connection to Palomar: this asteroid was initially discovered by Carolyn and Eugene Shoemaker at Palomar back in 1988.

- We are migrating the Solar System marshal to a new server ("private") and testing out a new framework that features the new Deep Learning model for the streaks (thanks to the ML group, especially Dima and Ashish). Tests show that the new DL model suppress the false positives by 20-50x, and we are looking forward to having it in formal operation."

Supernovae and relativistic explosions: "The Supernova and Relativistic Explosions group had our first proper telecon of the year this week, where we discussed AAS, potential changes to the observing strategy for year 2, and ongoing projects and transients. Attention was called to ZTF18aceqrrs, which has an interesting multi-peaked light curve and seems to be present in reference images taken nearly a year ago, making it a very long-lived supernova."

Galactic/M31: "The Galactic/M31 group had their first telecon after the Christmas/AAS break. We discussed the Winter Galactic Plane survey and survey strategies for ZTF year 2. Also, several members of the working group presented results at that AAS. "

The papers corner:

March collaboration meeting in Israel:

Please register ASAP, here if you have not done so yet and are planning to attend.

Please also sen Ofer Yaron by email the title of what you would like to present (full abstracts can be provided later on). We currently noted down contributions from only 5-6 people, and we want to have an idea of the meeting program by mid February at the latest. The plan is to have most talks around 20+5 min, with longer review talks (survey operations, WGs summaries etc...) around 35/40+5.

As for **accommodation**, please refer to Ofer Yaron's email from this week to book accomodation.

Finally, we plan to have the short guided tour in Jaffa/Tel Aviv followed by dinner at a restaurant on the evening of **Wednesday**, **Mar 13th**, so please plan your stay accordingly.

<u>Reminder: IMPORTANT: We (still) need your help for the ZTF FAQs page! (and would love to</u> <u>remove this item from the newsletter)</u>

During several weeks, we have listed the questions that people across the collaboration would like to have in the <u>FAQs</u> page. Now it is time to add answers. Please help us fill the voids (and elaborate on the answers already there).

More 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 <u>twiki</u>. 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: <u>ztf.communication.coordinators@gmail.com</u>

-Archive GUI now ready! The interactive image search, filtering and visualization tool is now ready ().

- The **ZTF Twitter account** is now active! <u>https://twitter.com/ztfsurvey</u> Re-tweet @ztfsurvey!

- To use the **url shortener** (e.g. during telecons, talks, in emails), navigate to <u>http://zwicky.tf/shorten</u> (username: ztf password:16chips) and type in the URL you want shortened.

- The **Wiki page** is active! Check it out at <u>http://zwicky.tf/wiki</u>. To request access, please email us at <u>ZTF.communication.coordinators@gmail.com</u>

"I felt like I might as well have been living in another part of the solar system" Bob Dylan.

Have a great and productive week! Thomas and Maayane