

Newsletter #94, August 14th 2019

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

Updates from the GROWTH Marshal (Ashot Bagdasaryan)

This week: i) Inside volume autoannotations have been added to sources in Electromagnetic Counterparts to Gravitational Waves, Electromagnetic Counterparts to Neutrinos, Afterglows of Fermi Gamma Ray Bursts. ii) The assignments list has been corrected on the Reports Page as it had previously incorrect values.

News from working groups

Machine Learning: "Work continues on 10 fields selected from different parts of the sky for variability (Jan, Michael). Periodicity work done. Gauging how long it will take for all fields. Before that determining if other algorithms to be incorporated. A new internal Zooniverse campaign is being started to look at (relatively) fainter transients (Richard). A light curve is included. If you are interested in helping, please get in touch."

Galactic and M31 science: "Starting from August 1st, we have started additional ZTF observations of the low galactic plane TESS fields. For TESS-sector 14 (which ends on August 15th), we are observing 16 ZTF fields in with 2 times R and 2 times G per night). This is a Caltech program, but data policy is the same as for the MSIP-TESS observations; alerts are available nightly, and science photometry will be released monthly, together with the MSIP-TESS observations. Recently, the discovery of a new type of pulsating hotdwarf star by ZTF was <u>published</u> (Kupfer et al. 2019), which was picked up by quite a few news <u>websites</u>."

Solar System: "ZTF found object A/2019 O3 -- it has "hybrid" designation (cometary designation, but A/ means it might be an asteroid) and a very unique orbit (perihelion distance a 9 au, near Saturn's orbit, plus a hyperbolic orbit almost perpendicular to the ecliptic plane). This object could be as large as 60 km in size -- would be the largest solar system object that ZTF has discovered (NEAs that we found are mostly a few hundred meters in sizes). Solar system community is now called to monitor for its possible cometary activity."

SNe and relativistic explosion: "At last week's telecon Ido Irani gave an update on the modelling of early light curves of infant Type II SNe. This project aims to constrain physical parameters, such as mass and radius, of the progenitors. Since the launch of ZTF, Weizmann has collected suitable data sets of several objects which will enable them to study not only individual objects but also, for the first time, ensemble properties."

EM/GW and Neutrino counterparts: "On August 8th, we received a trigger from LIGO that, if confirmed to be astrophysical, would have been classified as binary neutron star merger. The trigger was retracted as non-astrophysical a few hours later. ZTF and Gattini were ready to follow up the event."

The papers corner:

Please keep us updated about your submitted/published papers, they will be advertised here. Please send Joy Painter, the Astronomy Librarian at Caltech, links to papers as soon as soon as they are published. They will be kept track of <u>here</u>.

September 3-5: ZTF fall collaboration meeting, registration closing soon

Please register at your earliest convenience:

Registration will close August 15.

The meeting website is <u>here</u>; please visit it for travel and hotel information. Please let Eric Bellm know if you have any questions.

Reminders:

- PublicAlerts:There is a <u>link</u> to the alerts archive on the <u>website</u>!

- 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: 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! <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 ZTF.communication.coordinators@gmail.com

"Code never lies, comments sometimes do." - Ron Jeffires

Have a great and productive week!

Thomas and Maayane