

#####

Newsletter #140 September 23th 2020

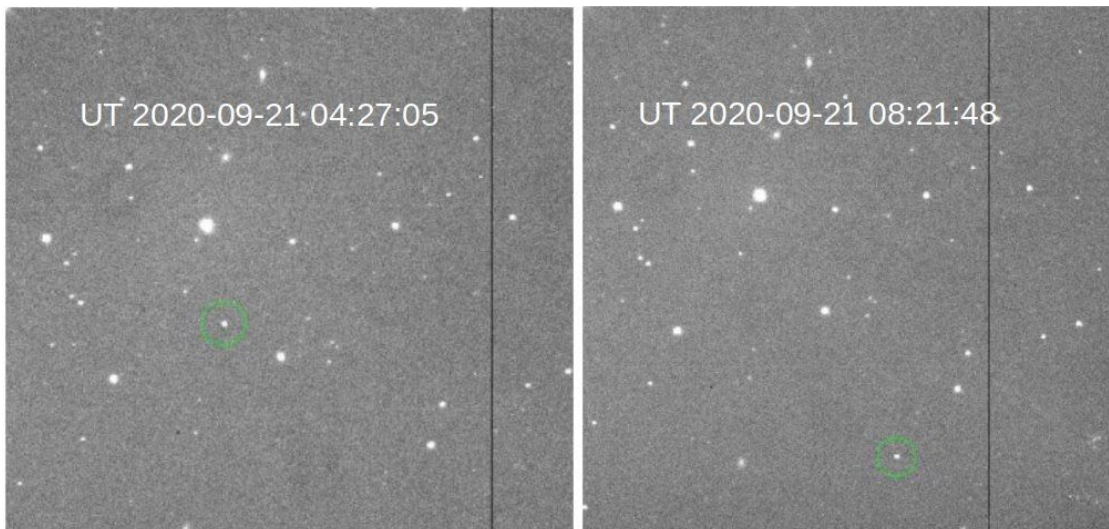
#####

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

News from working groups

Galactic and M31 Science: “We had lots of spectroscopic followup time last week. First of all, we discovered a new short period double white dwarf with an orbital period of 8 minutes (work by Kevin Burdge). In addition, we got followup data on a 5 minute period WD. We also got follow up data on a massive, rapidly rotating white dwarf, which is likely a merger product (Ilaria Caiazzo). Spectra also confirmed a new accreting short period white dwarf binary (AMCVn binary, 37minute, Jan van Roestel). Yuhan had a breakthrough with the study of the XRG source, and potentially confirmed a period for the system. We will present some of the results at the ZTF meeting next month, stay tuned!”

Solar System: “We have just completed a ~19 h observing campaign to continuously observe the episodically active asteroid (6478) Gault in order to obtain a lightcurve coverage spanning four observatories, Mount Laguna Observatory, Table Mountain Observatory, Lulin Observatory and GROWTH India. Our long time baseline spanning lightcurve will enable us to measure any potential variations in its lightcurve on short, ~1 h long time scales as well as longer time scales enabling us to detect variations due to the asteroid's rotation and possible presence of binary companions or complex rotation state. Images from MLO of Gault have been attached.”



Multimessenger: “After a long wait, we finally got another high-quality neutrino alert to follow-up. We triggered ToO observations of IC200916A for 3 consecutive nights, and identified 4 candidates. One has now been ruled out by a supernova Ia classification, and we’re working on classifying the remaining candidates.”

Physics of supernovae and relativistic explosions: “Suhail presented a cross-WG project. The objects of interest are pairs of SNe exploding in the same galaxy where one sibling is a Type II SN and the other a Type Ia SN. The idea is to apply the Expanding Photosphere Method (EPM) on the Type II SNe to find the distances to the Type Ia SNe. The EPM method is independent of the local distance ladder. Furthermore, Type II SNe can be detected at larger distances which makes the distances less dependent on peculiar velocities. The ultimate goal is to measure H0 directly. Suhail concluded that the ~10 pairs would be sufficient to measure H0 to a precision of ~3%. This accuracy would be sufficient to compare the results to other H0 measurements and shed new light on the Hubble tension.”

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 they are published. They will be kept track of [here](#).

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

“Study hard what interests you the most in the most undisciplined, irreverent and original manner possible.” - Richard Feynman

Have a good and productive week!

Erik and Igor