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Newsletter #126, May 6th 2020

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News from working groups

AGNs and TDEs:"We generated some good press for TDEs from ZTF in this popular article. Meanwhile the search continues and the latest TDE candidate is ZTF20aaunsze, UV detected with Swift this week."

Cosmology with SNe Ia: "Martin Briday and Mickael Rigault are working towards a study on measuring stellar masses and star formation rates of ZTF SN Ia hosts using LePHARE."

Machine Learning: "The ML group has started looking at the SEDM data with the aim of separating SN Ia quickly. We will also be working on obtaining the phase and redshifts.

The work on variability continues, as we add more binary classifiers, and move towards the catalog of variables from the initially selected 20 fields."

Physics of supernovae and relativistic explosions: "Yuhan Yao presented her paper on the ultra-stripped Type Ib SN 2019dge/ZTF18abfcmjw. Her team collected a series of photometry and spectra of this fast-evolving transient, even with HST. Her team used these data to measure the ejecta mass, kinetic energy, and, thanks to flash spectroscopy, also the extent of the circumstellar material around the ex-star. She concludes that the progenitor is an ultra-stripped star, which originates from a close binary system consisting of a mass-losing helium star and a compact object (i.e., a white dwarf, a neutron star, or a black hole). The remnants of this class of objects are probably binary-neutron star systems which could merge within the Hubble time.

Adam Miller presented his paper on the Type Ia SN 2019yvq/ZTF19adcecwu. It is the second-ever Type Ia SN that displayed an early flash in the UV and optical. Even after the initial flash, SN 2019yvq is a most unusual Type Ia SN. It showed a moderate faint peak in the optical, a fast-optical decline, red colours at all epochs, no iron-group elements in early spectra and high photospheric velocities. His team tried to model these mesmerizing properties with various models. Each of the models has its short-comings. Although rare, objects like these are vital for testing progenitor models of Type Ia SN."

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 keeping 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

"We are probably nearing the limit of all we can know about astronomy."
Simon Newcomb (1888)

Have a great and productive week!
Igor and Erik