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Newsletter #133 June 25th 2020

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ZTF Public Data Release 3 (Frank Masci):

The Zwicky Transient Facility (ZTF) and IPAC at the California Institute of Technology announce the third ZTF Public Data Release. This release builds upon the second 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 - December 2019, and (ii) data acquired under private survey time during the first ~9.4 months of the survey, spanning March 2018 - December 2018. The products include ~13.5 million single-exposure images, ~138,000 co-added images, accompanying source catalog files containing ~234 billion sources extracted from those images, and ~2.5 billion lightcurves constructed from the single-exposure extractions.

A guide to ZTF Data Release 3, with data access instructions and supporting documentation is available here.

Access to the data products is available via the on-line and API services of the NASA/IPAC Infrared Science Archive (IRSA).

Press release on electromagnetic counterpart to a BH-BH merger (Matthew Graham):

Today a study by Matthew Graham et al. was published in Physical Review Letters on a likely EM counterpart to a binary black hole merger, based on ZTF data. It was accompanied by a press release, which can be found here (but also popular articles here, here, here and likely many more places).

News from working groups

Cosmology with SNe Ia: “Young-Lo Kim presented a host-galaxy association code which would have wider applications beyond SNe Ia”

Physics of supernovae and relativistic explosions: “Previously, superluminous supernovae were divided into H-poor and H-rich SLSNe. Lin found a SLSN that showed clear helium absorption features. A careful re-analysis of all ZTF SLSNe revealed that there are five additional SLSNe with distinct He features. Which source of energy provides the non-thermal radiation needed to produce the He features? Is it the radioactive decay of Ni, a central engine (e.g., a magnetar), CSM interaction? Challenging for the

pure Ni model are the absence of line-blanketing and the multiple peaks observed in these SLSN light curves. While the multi-peaked light curves are also challenging for pure magnetar models, the lack of line blanketing would support the magnetar model. CSM interaction could explain both features. Or, are multiple sources of energy, maybe, at play? Solving this puzzle will have profound implications on the understanding of the progenitors of SLSNe and their sources of energy."

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

"Without big data, you are blind and deaf and in the middle of a freeway" - Geoffrey Moore

Have a good and productive week!

Erik and Igor