

It's also a useful teaching tool for undergraduate labs!



**SEDDBYS**  
SED Builder for Young Stars  
Davies (2021, SoftwareX, 14, 100687)  
[gitlab.com/clairedavies/sedbys](https://gitlab.com/clairedavies/sedbys)

### Spectral Energy Distributions (SEDs) are a really useful primary and complementary tool for studying young stellar objects.

But SED compilation for young stars is time consuming as:

- VizieR, VOSA & other virtual observatory tools are not complete. There are tons of published photometry tables missing from these databases and no repository of fluxes published in the text of papers / single-line tables (which is particularly problematic for submm to radio wavelength data);
- Young stars are inherently variable and you may need to sift through lots of papers to quantify how this affects your target of interest at different wavelengths or ensure you obtain bright epoch photometry for your science.

This is also limiting the legacy value of archival data!



### SEDDBYS is a python-based git repository of command-line tools designed for the rapid collation, flux calibration, & visual inspection of archival multi-wavelength photometry and infrared spectra.

- It combines the astroquery.vizier tool with a local database of archival photometry and fluxes which do not exist in online catalogs.
- It retains the observation date, where available, and the telescope/beam resolution to aid data inspection for variable stars and multiple systems.
- It creates LaTeX format, fully referenced data tables, with a corresponding bibTeX file.
- The command-line operation makes it simple to run in batch mode when dealing with large numbers of targets.

