Title: Open Catalogs for Astronomical Data

The Open Supernova Catalog is a new webpage with a collection of published observations and metadata for presently 36,000+ supernovae (SNe) and SNe candidates. The catalog is freely available on the web (http://sne.space), with its main interface having been designed to be a user-friendly, rapidly-searchable table accessible on desktop and mobile devices. In addition to the primary table which contains SNe metadata, an individual page is generated for each SN which displays its metadata, light curves, and spectra. The data presented in the catalog is automatically rebuilt on a daily basis and is constructed by parsing several dozen sources, including the data presented in the supernova literature, i.e. “primary” sources, and from “secondary” sources such as other web-based catalogs. Individual SN data is stored in the hierarchical, human- and machine-readable JSON format, with the entirety of each SN’s data being contained within a single JSON file bearing its name. The setup I’ll present, which is based upon open source software maintained via git repositories hosted on GitHub, enables anyone to download the entirety of the supernova dataset to their home computer in minutes, and to easily make contributions of their own data back to the catalog. I'll describe how the catalog framework we have developed will be an important pillar for supporting upcoming transient surveys.