

# Classifying infinity... and beyond!

Library and Information Services in Astronomy VII, June 19 2014. Presented by Katie Frey.

## Goals of the Unified Astronomy Thesaurus

*The Unified Astronomy Thesaurus is an open, interoperable, and community-supported project that unifies the existing astronomy and astrophysics vocabulary into a freely-available thesaurus.*

**Open:** Anyone in the community can contribute by suggesting term additions, refinements, and revisions. The thesaurus is released under a Creative Commons license.

**Interoperable:** The thesaurus is maintained in SKOS and will be exportable in other formats. It can be used freely as an authority or reference to help define terms and understand how these terms are related to other concepts in astronomy and astrophysics.

**Community-supported:** The UAT is supported by major stakeholders in the astronomical community (including journal publishers, professional societies, and libraries, such as AIP, IoP, IAU, AAS, ADS, and the Wolbach Library).

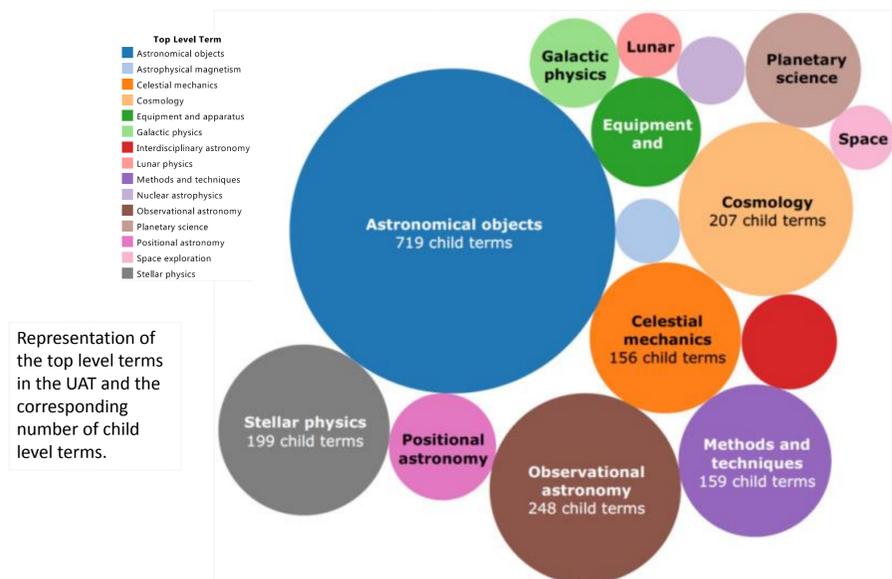
## Why Create a Unified Astronomy Thesaurus?

The main driver behind the creation of a single thesaurus is the wish to support semantic enrichment of the literature, but we anticipate broader use of the UAT in data and service discovery applications. We also believe that the UAT will underpin and inspire a new range of cross-system data-sharing applications.

## Data Sources for the Unified Astronomy Thesaurus

The UAT builds upon several pre-existing thesauri, including the IVOA Thesaurus (which evolved from the 1992 IAU Thesaurus), the Physics Astronomy Classification Scheme (PACS), and the astronomy journal keywords. The UAT will be further enhanced and updated through a collaborative effort involving broad community participation. Towards that goal, we have already incorporated the astronomy branch from the SPIE thesaurus.

## Structure of the Unified Astronomy Thesaurus

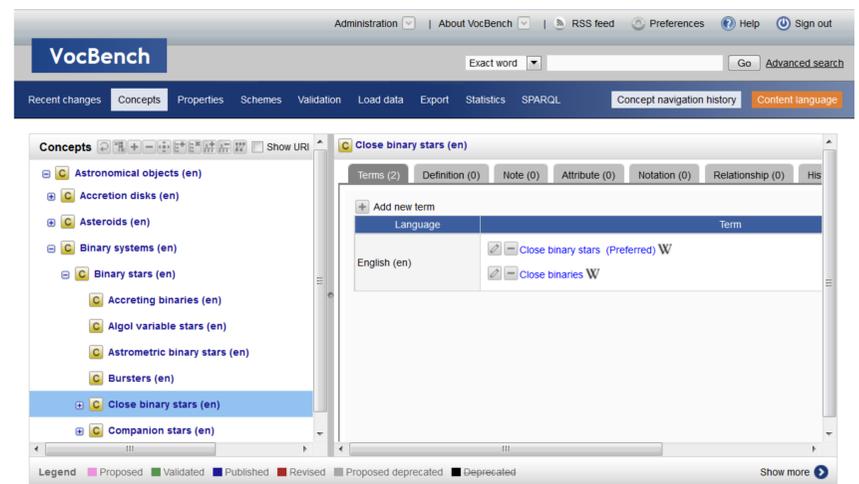


Representation of the top level terms in the UAT and the corresponding number of child level terms.

Total number of concepts: 1906 | Top-level concepts: 15 | Depth: 12 levels

The majority of the terms in the UAT are currently located under the "Astronomical objects" top level concept. The distribution of terms may change as we refine and update the thesaurus.

## Thesaurus Management Tool: VocBench



Using VocBench, users will suggest changes and updates to the UAT which are then reviewed by a team of editors. The editors will approve or reject each suggestion, and approved changes are then released by the stewarding librarian at regular intervals as new versions of the thesaurus. This platform also captures a detailed history of changes and updates, maintaining the provenance of each term individually and the thesaurus as a whole.

## Browsing the Unified Astronomy Thesaurus

### Hierarchical Browser

This shows the thesaurus terms in context. Clicking on a specific term will bring up information such as broader, narrower, and related terms. You can also view the details for each term, like scope notes and synonyms.

### Visual Browser

The relationships between terms in the UAT are easily visible in this view. Clicking on a term will expand or collapse its child terms, allowing you to drill down through the UAT.



## Acknowledgements

The UAT is based on the 1992 IAU Thesaurus of Shobbrook and Shobbrook, with additions from Helen Knudsen, Marlene Cummins and Liz Bryson, influence from the consensus list of journal keywords, and, in the late-2000s, updating work by Rick Hessman under the auspices of the IVOA.

Get the Thesaurus: <http://astrothesaurus.org>

## Get Involved!

The thesaurus is currently in beta while we finalize how the work will be managed and distributed (this will include a SKOS thesaurus). To express your interest in contributing to the UAT or using the UAT for development purposes, join the Google Group.

Google Group: <https://groups.google.com/d/forum/uat-users>