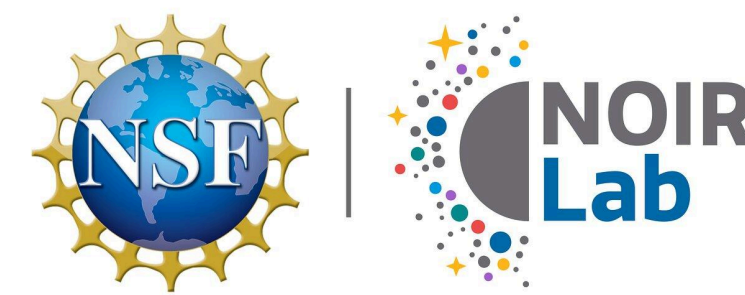


Astronomy Librarians' Roles and the Unified Astronomy Thesaurus

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<https://astrothesaurus.org/> 



What Is the UAT?

- a freely available, high-quality open thesaurus of astronomy and astrophysics terms formalizing astronomical concepts and their interrelationships
- a common vocabulary providing semantic enrichment to the scientific literature to improve how astronomical research is indexed, searched, and shared

Benefits of the UAT

- High-quality keywords make literature searches faster and more effective, improve discoverability, and assist readers in judging the suitability of a publication to their interests.
- The controlled vocabulary broadens the impact of scientific work and facilitates interoperability with other systems, aiding in cross-disciplinary research.
- For researchers, aids in identifying relevant publications, with its term normalization, concept disambiguation, and concept hierarchy.
- For publishers, provides an accurate and up-to-date vocabulary reflecting the input of subject matter experts.
- For databases, provides high-quality metadata to help with indexing for searching and automated discovery services based on AI.
- For data archives, provides an unified vocabulary to aid in interoperability between archives.

History

- The UAT is the most recent iteration of efforts to develop a keyword classification system for astronomical concepts and entities.

- The American Astronomical Society (AAS) has been owner and community steward of the UAT since 2012. The AAS provides the UAT to the astronomical community so that professional astronomers have a common, controlled vocabulary that facilitates the discovery of their research.



[UAT Working Group](#)

- Established by the AAS in June 2024, the UATWG manages, maintains, and improves the UAT.
- Activities are focused on expanding and refining the taxonomy, making technical improvements, creating staffing options, and producing informational materials.
- Collaborative effort of individuals with varied skillsets, including librarians, astronomers, publishers, and data scientists.

Using the UAT

- The UAT is designed to be a polyhierarchy, meaning that for some concepts there are multiple paths to get to it starting from top-level concepts.
- [Browse the UAT Thesaurus](#)
 - Search function for concepts
 - Alphabetical Browse
 - Hierarchical Browse
- For each concept, provides narrower and broader concepts, alternate terms, definitions, scope notes

Stellar astronomy

<https://astrothesaurus.org/uat/1583>

Narrower Concepts:

Star clusters
Stellar physics
Stellar populations
Stellar remnants
Stellar types
Circumstellar matter
Astroseismology
Galactic archaeology

Alternate Terms:

Stellar astrophysics

Definition:


The branch of astronomy that deals with the study of stars, their physical properties, formation, and evolution.
- *An Etymological Dictionary of Astronomy and Astrophysics*, by M. Heydari-Malayeri

Astronomy Librarians' Roles

- For bibliographers, the UAT provides a way to tag publications associated with a set of observations with standard astrophysical concepts, sources, and phenomena.
- SciX (ADS) has promoted the use of the UAT since 2013 and has plans to assign UAT keywords to all astronomy articles.
- SciX Keyword AI Labeler AT SciX (KAILAS) is a developmental AI algorithm that automatically assigns UAT keywords to astronomy papers.
- UAT keywords are used by the AAS journals, *Icarus*, and *PASP* well as by IVOA, STScI, and CDS.
- Astronomy Librarians' involvement
 - refining the UAT through contributions to the taxonomy and concept definitions
 - advocating for users' needs
 - publicizing the UAT
 - connecting users to the UAT within their organizations or communities
 - aiding users effectively and efficiently utilize this community resource
 - helping build an UAT community throughout the scientific community
 - serving on the WGUAT

UAT Resources

- [UAT Website](#) - www.astrothesaurus.org
 - [UAT Handbook](#)
 - [Information Flyer](#)
- [SciX Public Library of UAT Pubs](#)
- [UAT Working Group](#)
- [GitHub Issues](#) - contribute and view changes/updates

 <https://github.com/astrothesaurus/UAT>

