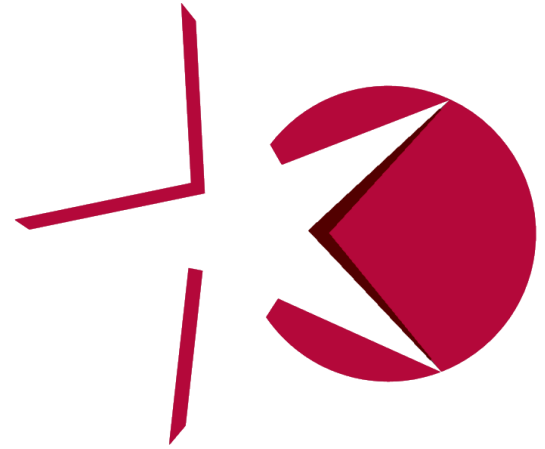


UNIFIED ASTRONOMY THESAURUS



Katie Frey
kfrey@cfa.harvard.edu
UAT Webinar
December 8, 2020

What is the UAT?



- Open and community supported AAS project
- Roots in PACS, the IAU & IVOA Thesauri, and, of course, the Astronomy Subject Keywords
- Formalizes concepts and their relationships into a hierarchical structure
- Thesauri standards (ANSI/NISO z39.19 & ISO 25964)

Fast novae
Magnetars
Comets
S-process
CMBR detectors
Nuclear abundances
Sunspot cycle
Solar coronal holes
Cosmic abundance
Ephemerides
Mass spectrometers
Hydroxyl masers
Galaxy dynamics
Recurrent novae
Bipolar sunspot groups
Radio loud quasars
Astrodynamics
Stellar nucleosynthesis
Radio observatories

Why was the UAT developed?



- The Astronomy Subject Keyword list was developed in the 1970s and hadn't been revised since 2013
- PACS was last updated in 2010
- Newer disciplines were underserved by ASK
- Growth of Semantic Web

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How is the UAT Updated?



- Regular updates, mid to late December.
- Influence the UAT via feedback
- Feedback vetted by astronomers, astrophysicists, and astronomy journal editors
- Feedback is synthesized into thesaurus

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How is the UAT being used?



most common concepts,
(as of Sept 2020)

**1400+ unique
concepts!**

Interstellar medium	277
Star formation	245
Galaxy evolution	225
Active galactic nuclei	216
Neutron stars	186
Exoplanets	180
Solar wind	180
Exoplanet atmospheres	149
Solar flares	145
Magnetohydrodynamics	140
Quasars	139
Protoplanetary disks	135
Solar magnetic fields	134
Space plasmas	133
Supermassive black holes	130



Where can I find the UAT?



- Integrated into a variety of tools and systems

- Search and browse on the UAT website

<http://astrothesaurus.org>

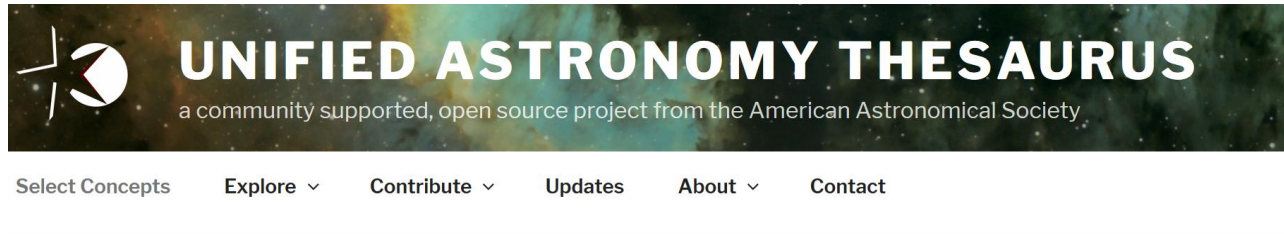
- Machine readable files at GitHub

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

Where can I find the UAT? (searching)



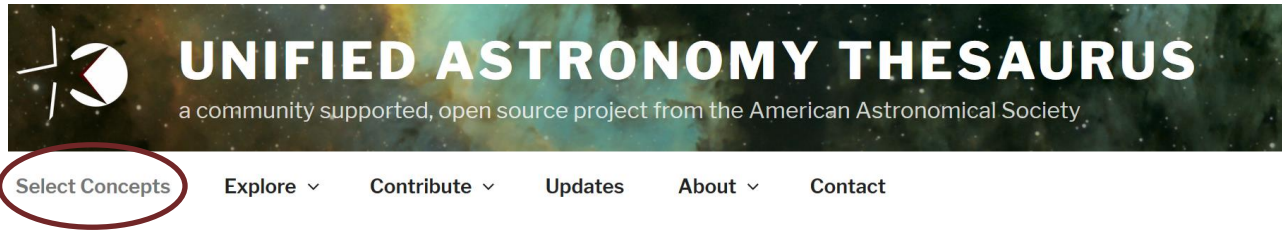
UAT Website:
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Where can I find the UAT? (searching)



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Where can I find the UAT? (searching)



UAT Website
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Select Concepts Explore ▾ Contribute ▾ Updates About ▾ Contact

SELECT UAT CONCEPTS

Edit

AAS uses the [Unified Astronomy Thesaurus \(UAT\)](#) to define keywords. Please use the entry box and drop down menu below to auto-complete, search for, and obtain UAT concepts for your manuscript submission to AAS Publishing (*The Astronomical Journal*, *The Astrophysical Journal*, *The Astrophysical Journal Letters*, *The Astrophysical Journal Supplements*, *Research Notes of the AAS*):

- Astrometric **exopla**net detection ⓘ
- Exoplanet** astronomy ⓘ
- Exoplanet** atmospheres ⓘ
- Exoplanet** atmospheric composition ⓘ
- Exoplanet** atmospheric variability ⓘ
- Exoplanet** catalogs ⓘ
- Exoplanet** detection methods ⓘ

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Where can I find the UAT? (searching)



UAT Website
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Added Concepts	
Exoplanet atmospheric composition (2021)	Remove ✖
<input type="text"/>	

[Cut/Paste Text](#)

Concept: Exoplanet atmospheric composition +

More General Concepts:

[Exoplanet atmospheres](#) +

More Specific Concepts:

(None)

Related Concepts:

[Atmospheric composition](#) +

Where can I find the UAT? (searching)



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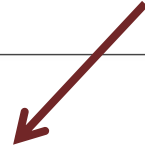
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<http://astrothesaurus.org/uat/2021>

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More Specific Concepts:

(None)

Related Concepts:

[Atmospheric composition +](#)

Where can I find the UAT? (browse)



Select Concepts Explore ▾ Contribute ▾ Updates About ▾ Contact

SELECT

Alphabetical Browse

Hierarchical Browse

UAT API

UAT on GitHub

Autocomplete Widget

TS

AAS uses the [Unified Astronomy Thesaurus \(UAT\)](#) to define keywords. Please use the entry box and drop down menu below to auto-complete, search for, and obtain UAT concepts for your manuscript submission to AAS Publishing ([7](#))

Where can I find the UAT? (implementing)

UAT's GitHub Repo:
<https://github.com/astrothesaurus/UAT>



Select Concepts Explore ▾ Contribute ▾ Updates About ▾ Contact

SELECT **TS**














- Alphabetical Browse
- Hierarchical Browse
- UAT API
- UAT on GitHub**
- Autocomplete Widget

AAS uses the Unif (7) to define keywords. Please use the entry box and drop down menu below to auto-complete, search for, and obtain UAT concepts for your manuscript submission to AAS Publishing (7)

Where can I find the UAT? (implementing)



UAT's GitHub Repo:
<https://github.com/astrothesaurus/UAT>

 katieefrey Merge branch 'master' of https://github.com/astrothesaurus/UAT	6b4f704 on Jun 2	 113 commits
 .github/ISSUE_TEMPLATE	Update issue templates	2 years ago
 Metadata Crosswalks	v.3.0.0	2 years ago
 CODE_OF_CONDUCT.md	UAT v.3.1.0	12 months ago
 CONTRIBUTING.md	UAT v.3.1.0	12 months ago
 LICENSE.md	Update LICENSE.md	2 years ago
 README.md	UAT v.3.1.0	12 months ago
 UAT.csv	UAT v.3.1.0	12 months ago
 UAT.json	added URIs to UAT.json	6 months ago
 UAT.rdf	deprecated concepts included in UAT.rdf	9 months ago
 UAT_3.1.0_release_note_full.md	fixed formatting errors	9 months ago
 UAT_3.1.0_release_note_summary.md	Update UAT_3.1.0_release_note_summary.md	12 months ago

Where can I find the UAT?



- **UAT in the IVOA**
Markus Demleitner, International Virtual Observatory Alliance
- **Implementing the UAT in the Proposal Process at STScI**
Sarah Weissman, Senior Software Engineer, Space Telescope Science Institute
Jenny Novacescu, Chief Librarian, Space Telescope Science Institute
- **UAT as a Critical Element in AAS Author Submissions**
Peter Williams, AAS Innovation Scientist, Center for Astrophysics | Harvard & Smithsonian
- **Integrating UAT into the ADS**
Alberto Accomazzi, Principal Investigator, NASA Astrophysics Data System