# The NASA Science Explorer: ADS for all of NASA Science

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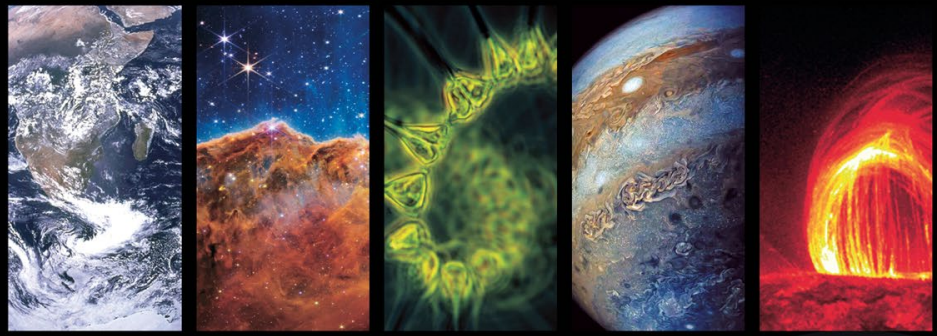
*aaccomazzi@cfa.harvard.edu*

astrophysics data system

CENTER FOR ASTROPHYSICS
HARVARD & SMITHSONIAN

SciX
[ SciXplorer.org ]

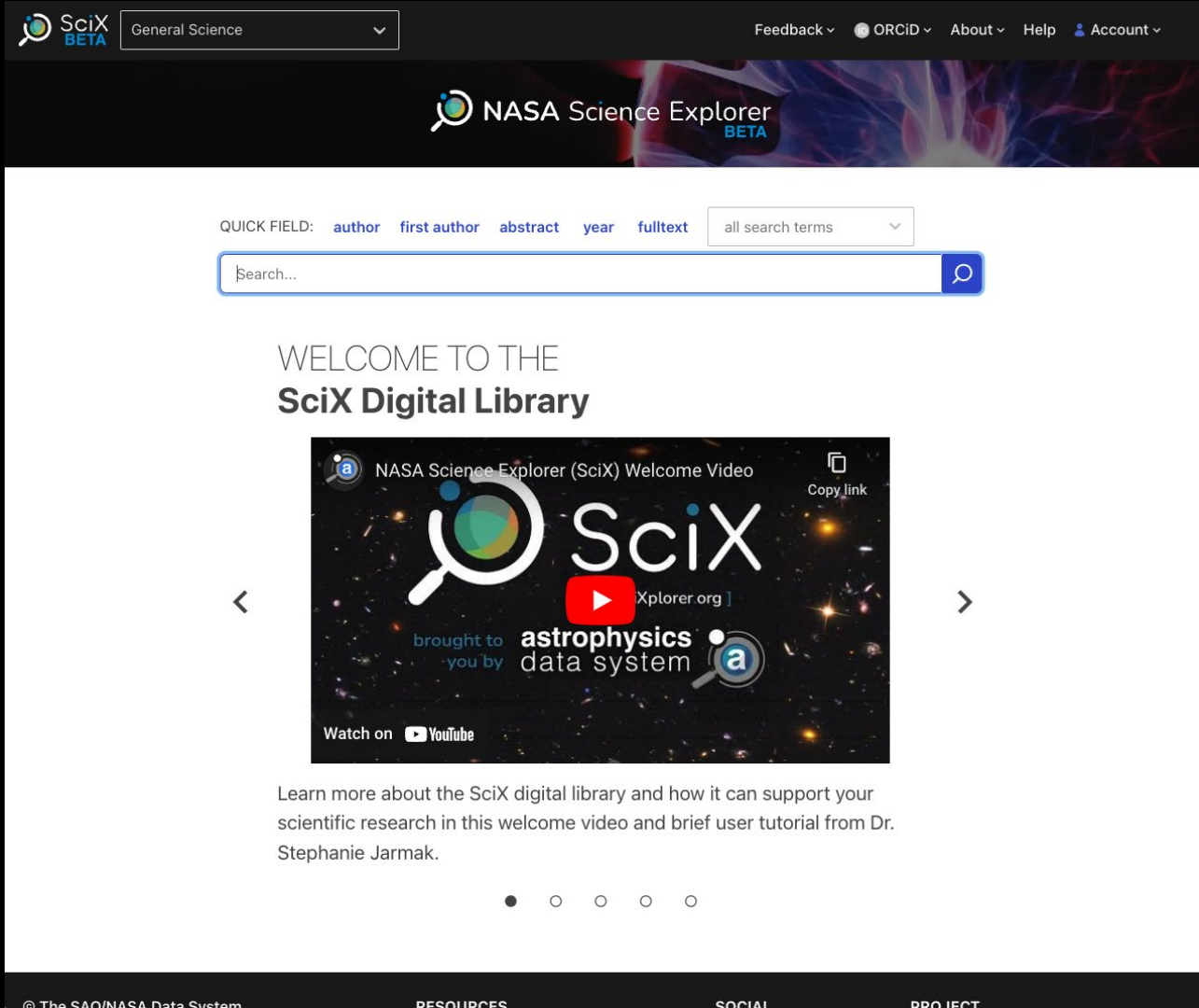


NASA Science Explorer

*Accelerating the discovery of NASA Science.*

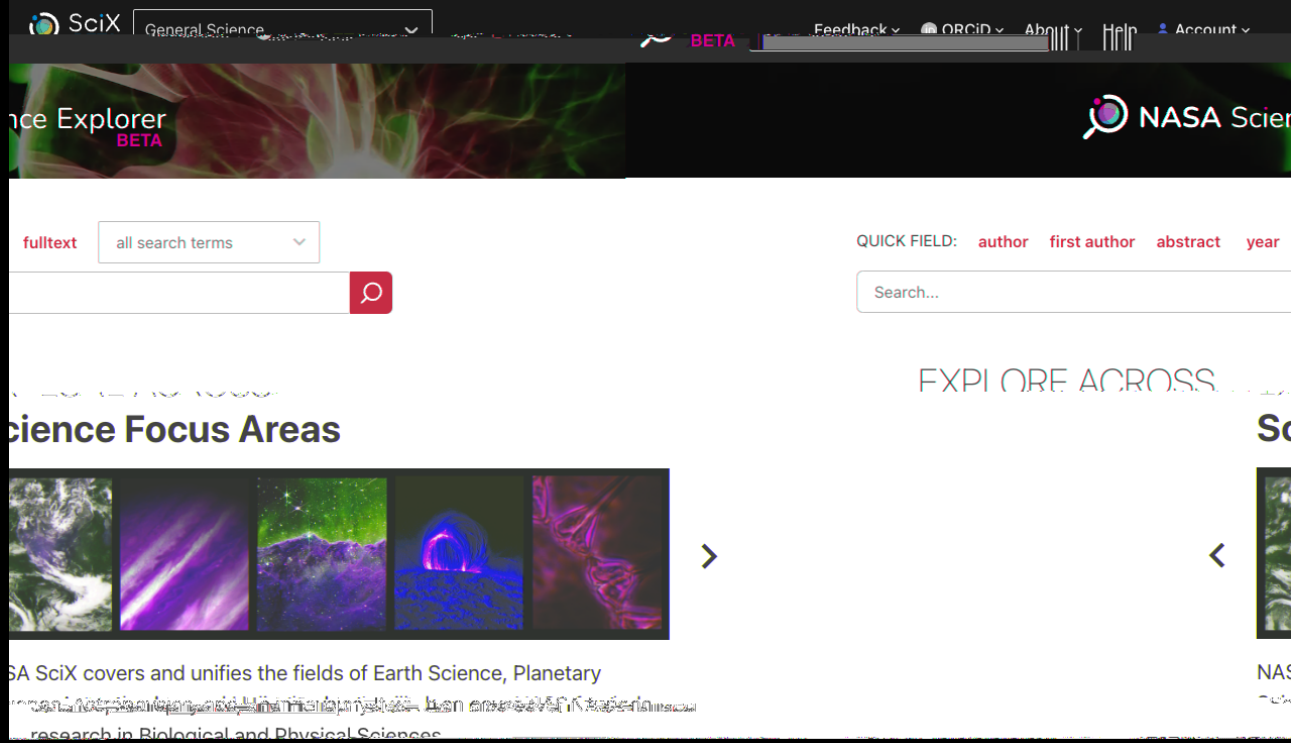
# What is the NASA Science Explorer?

SciX is a new literature portal that we just launched as part of the expansion of the NASA Astrophysics Data System (ADS), a digital library focusing on Space Science research.



# What is the NASA Science Explorer?

NASA SciX is a literature-based, open digital information system covering and unifying the research disciplines funded by the NASA Science Mission Directorate.



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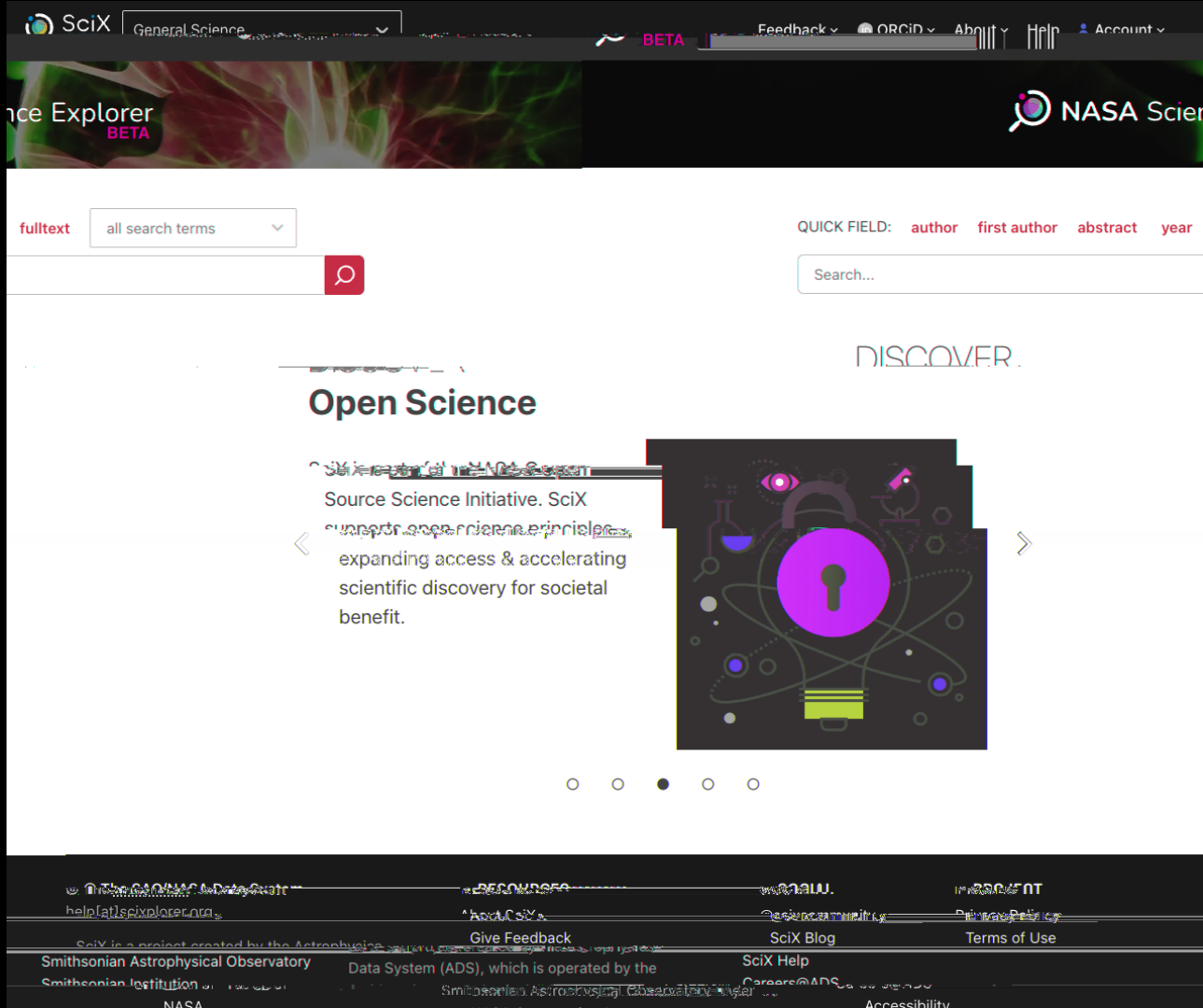
SciX supports NASA's Open Science efforts and enables interdisciplinary research and collaboration.

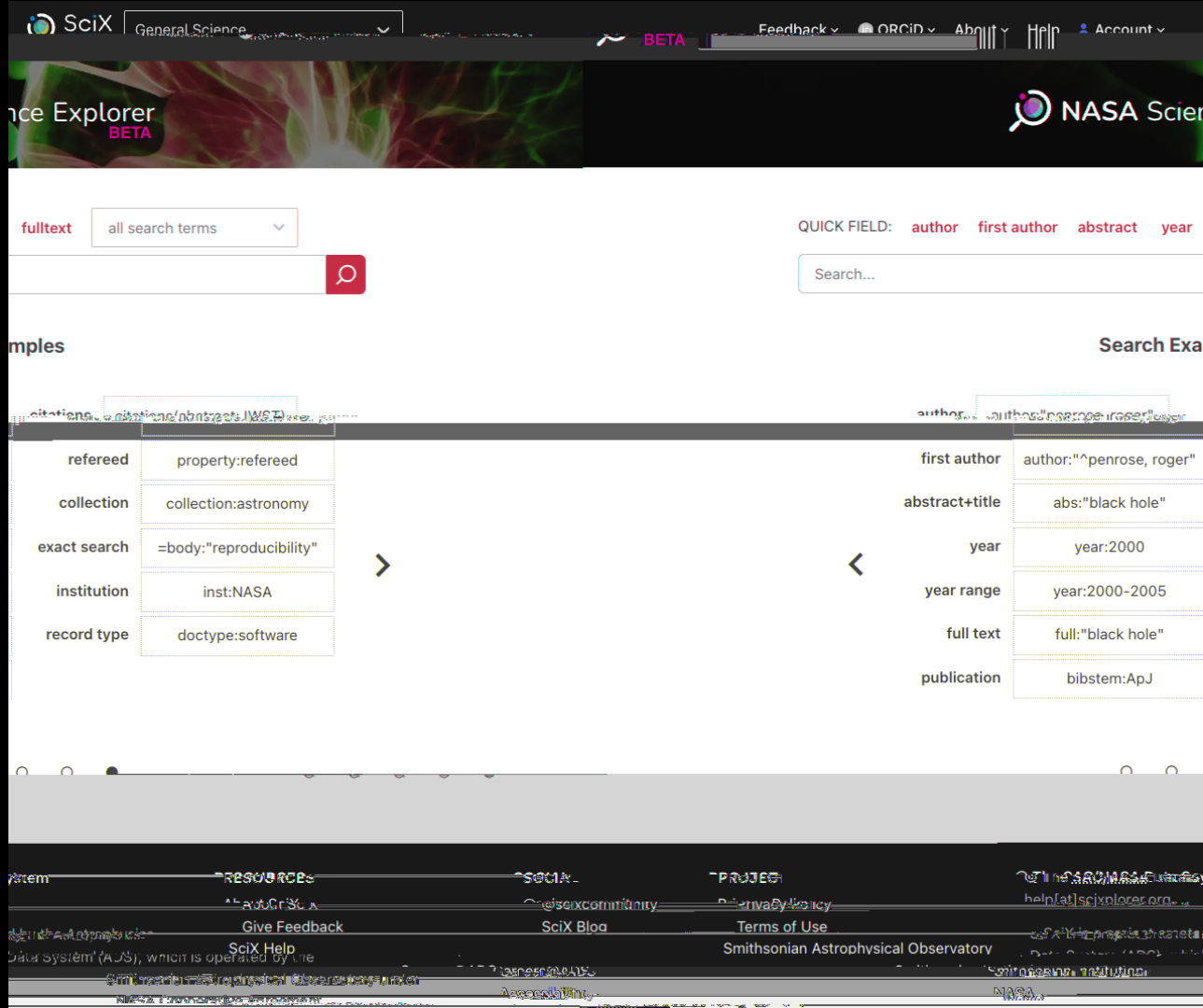


# What is the NASA Science Explorer?

The NASA Science Explorer, or SciX for short, is available as a beta release at the following website:

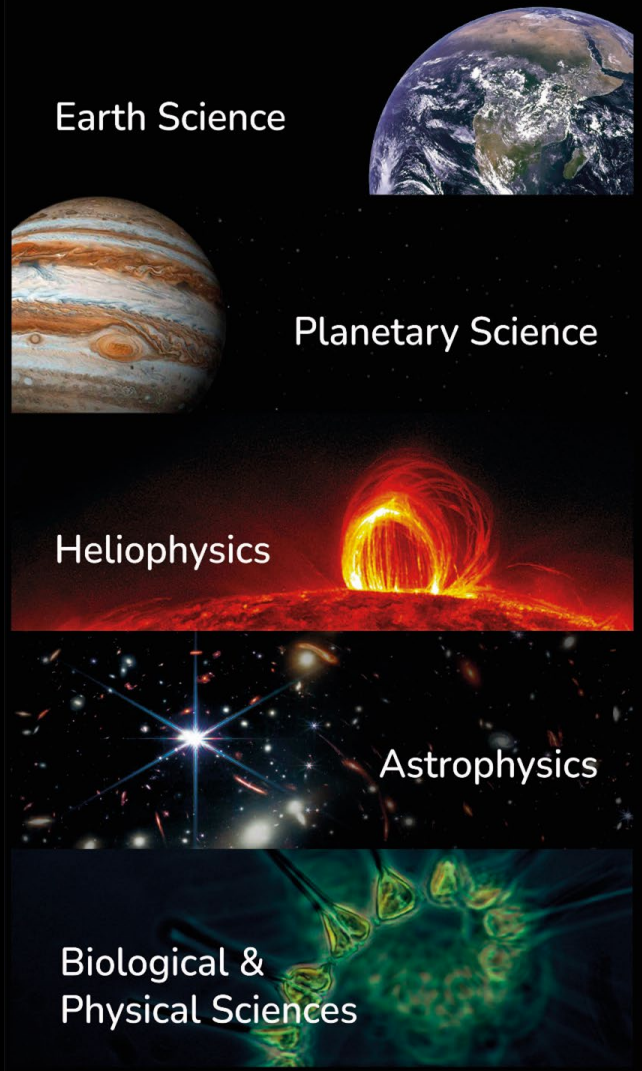
**https://SciXplorer.org**

While the system is still under development, it already provides a wealth of information and functionality ready for use.



## Why the NASA Science Explorer?

NASA’s Science Mission Directorate in 2019 calls for the creation of interdisciplinary literature portal spanning across SMD in support of Open Science.

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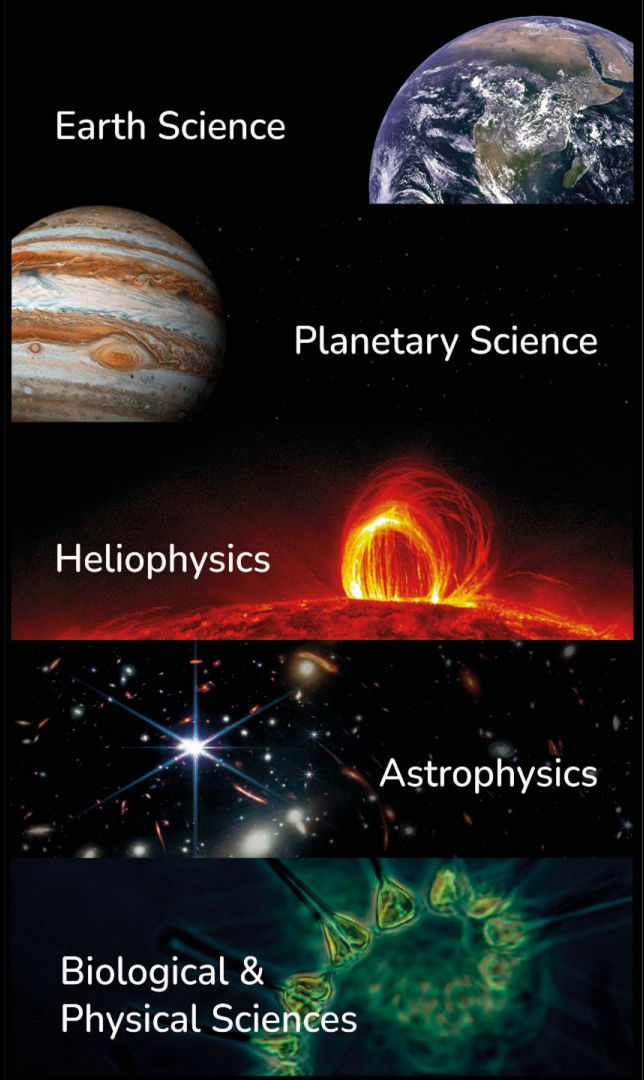
ADS has been selected for its support of open science goals: facilitating discovery and dissemination of OA publications, data, and software by aggregating and linking them.

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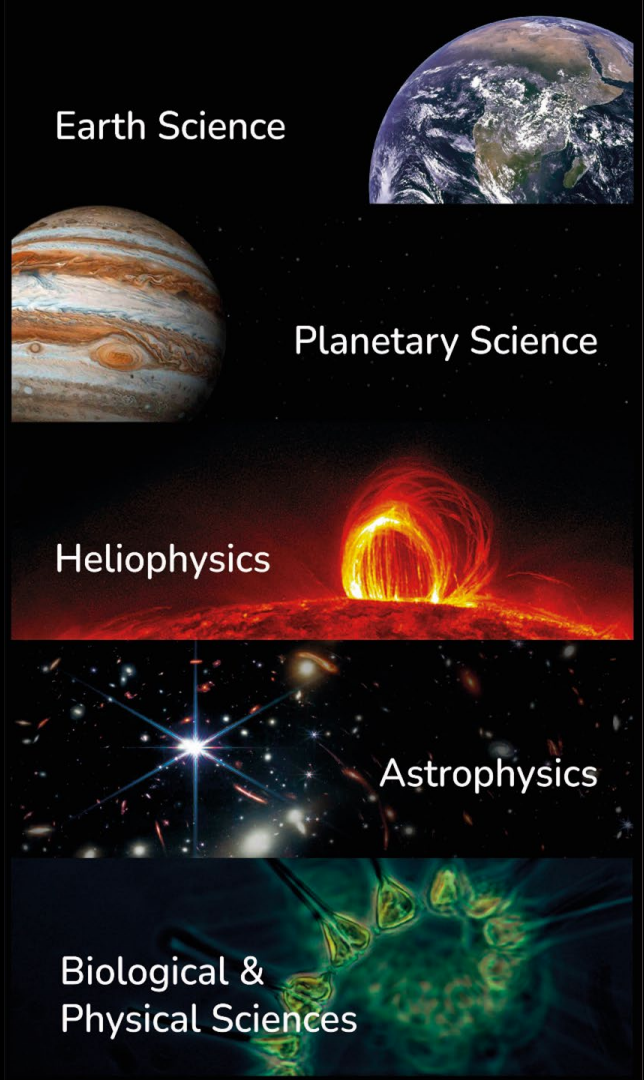
Over the next three years, the ADS team will be developing and expanding the **NASA Science Explorer** to include all relevant NASA SMD content.

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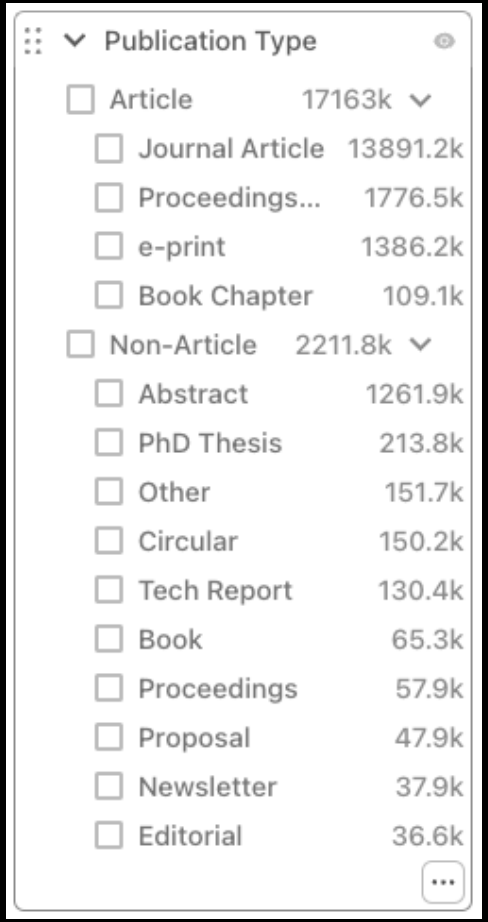
## Why the NASA Science Explorer?

All discipline-specific research content is aggregated, connected, and indexed for each of the SMD divisions

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Digital collections are enriched with links to other research objects such as datasets, software, notebooks, and funding information


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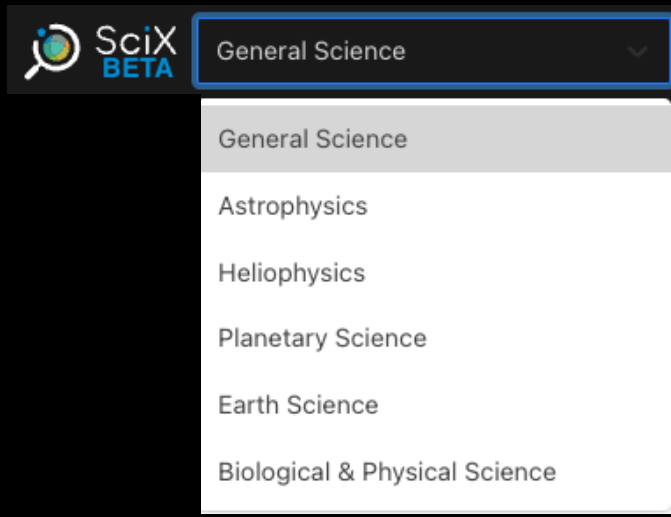
Discipline-specific capabilities and analytic services are exposed to the relevant research communities

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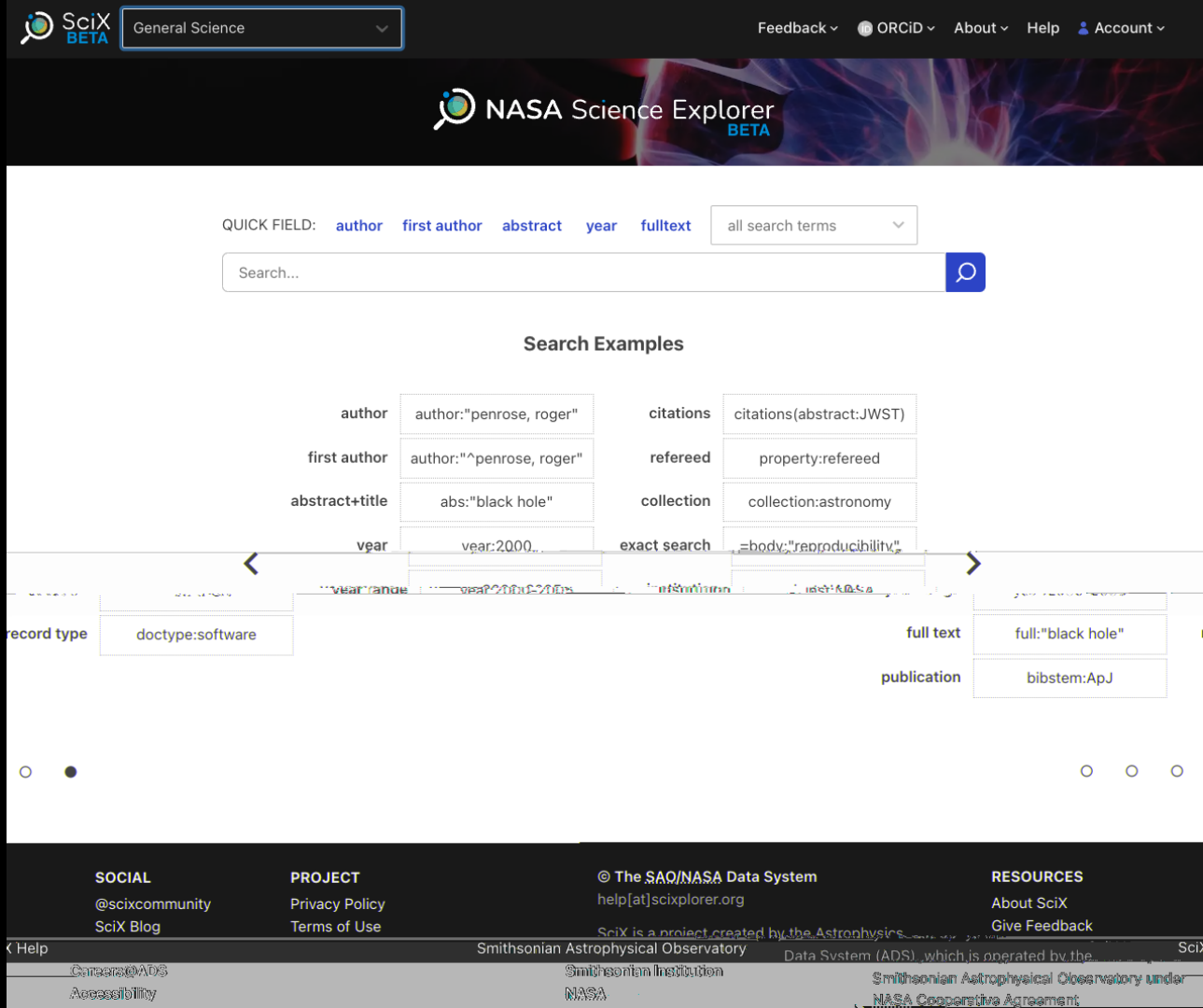
# How is it different from ADS?

SciX is built on top of the same database and API, but has a few different features:



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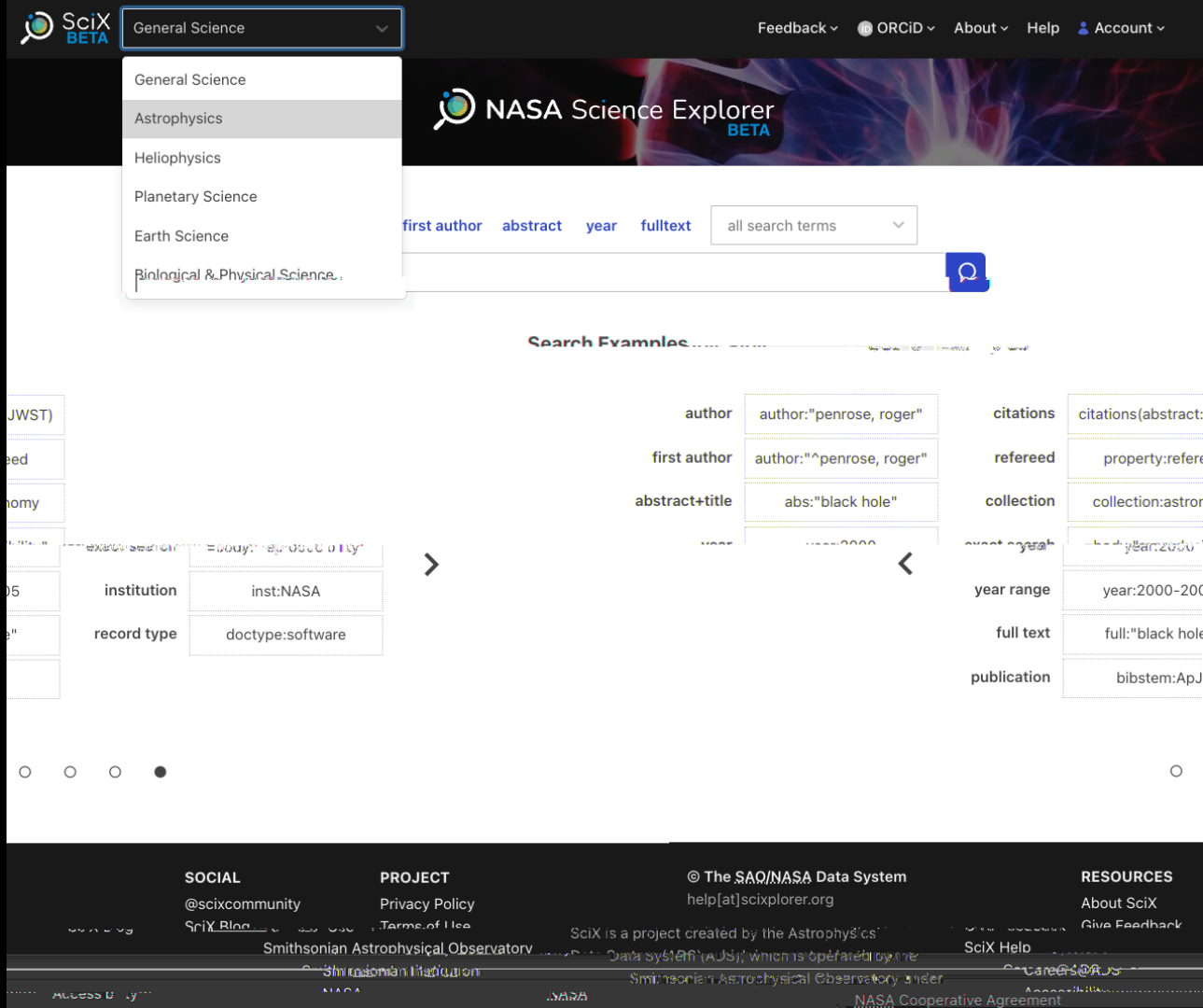
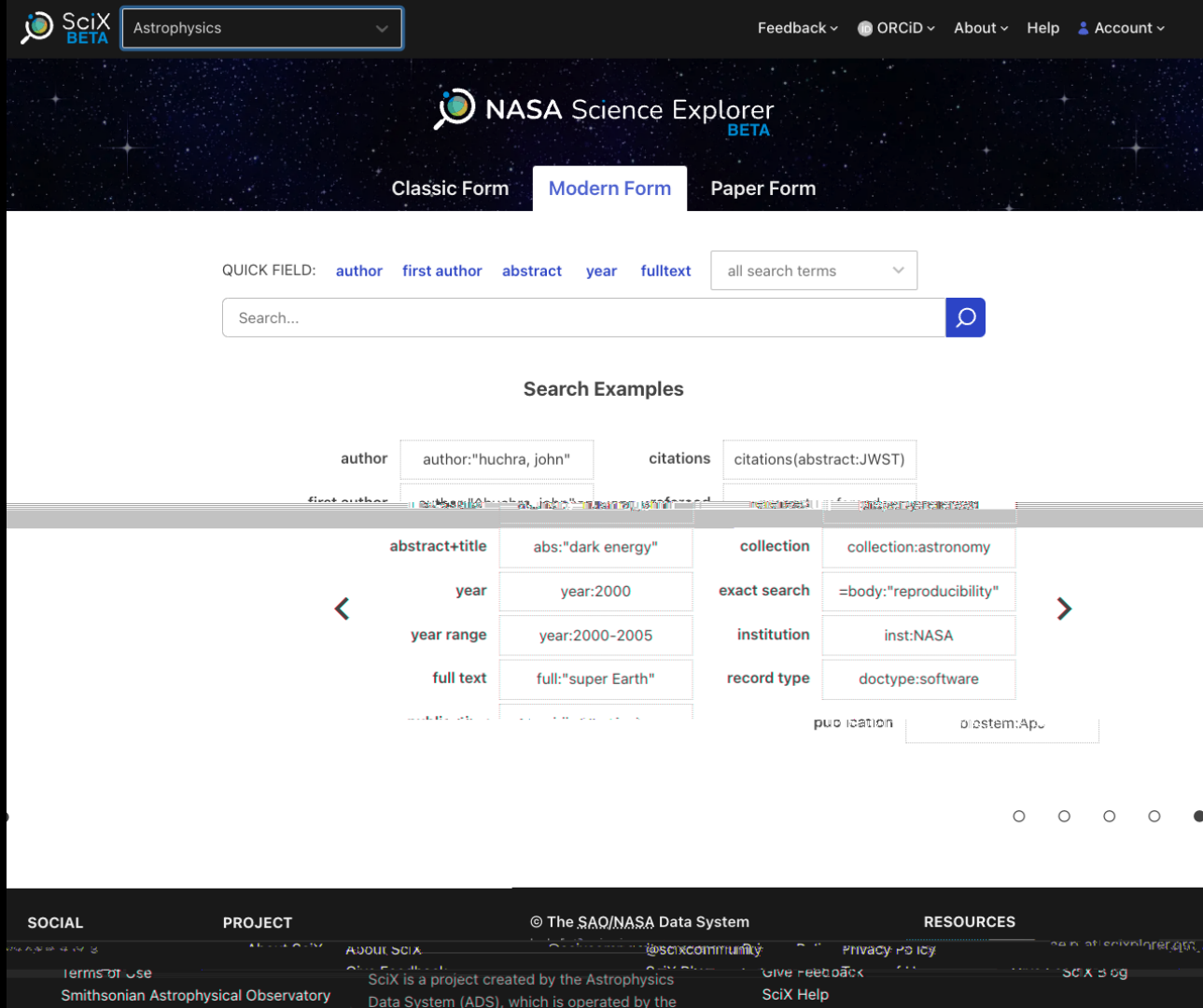
- Improved accessibility



# How is it different from ADS?

SciX is built on top of the same database and API, but has a few different features:

- Improved accessibility
- Discipline specific “skins”



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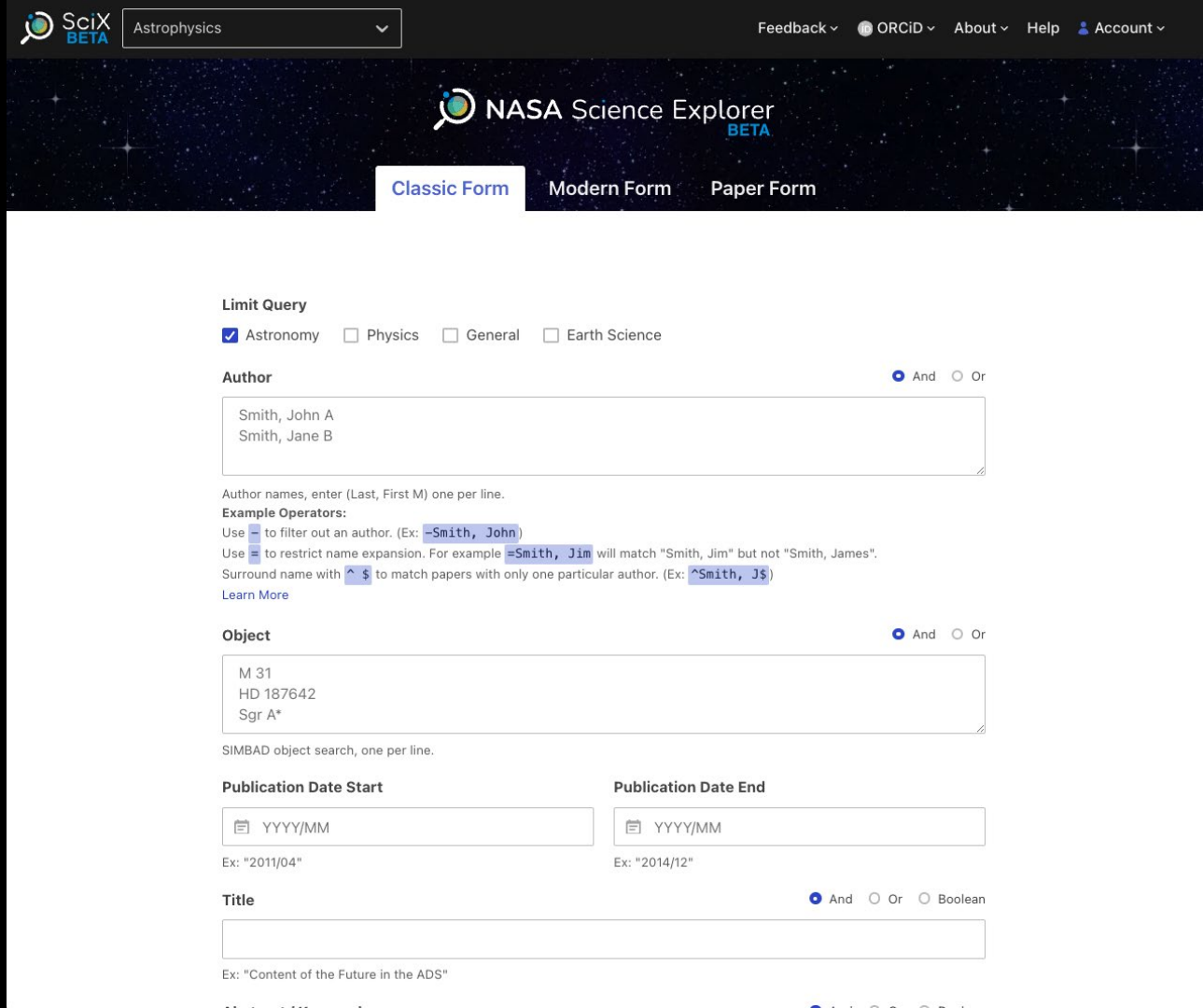
- Discipline specific “skins” (including the “Classic Form”)



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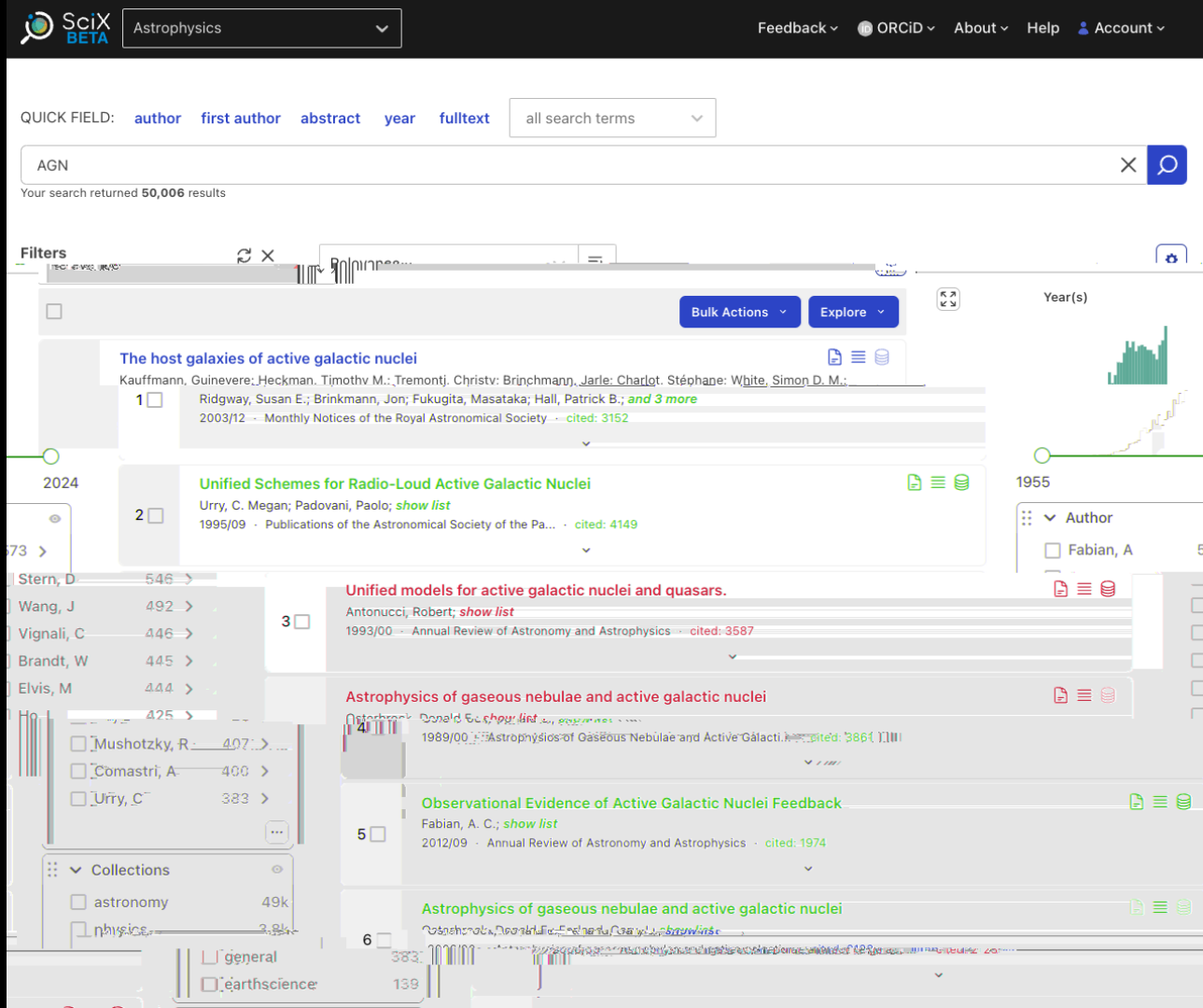
- Improved accessibility
- Discipline specific “skins”
- Better handling of filters



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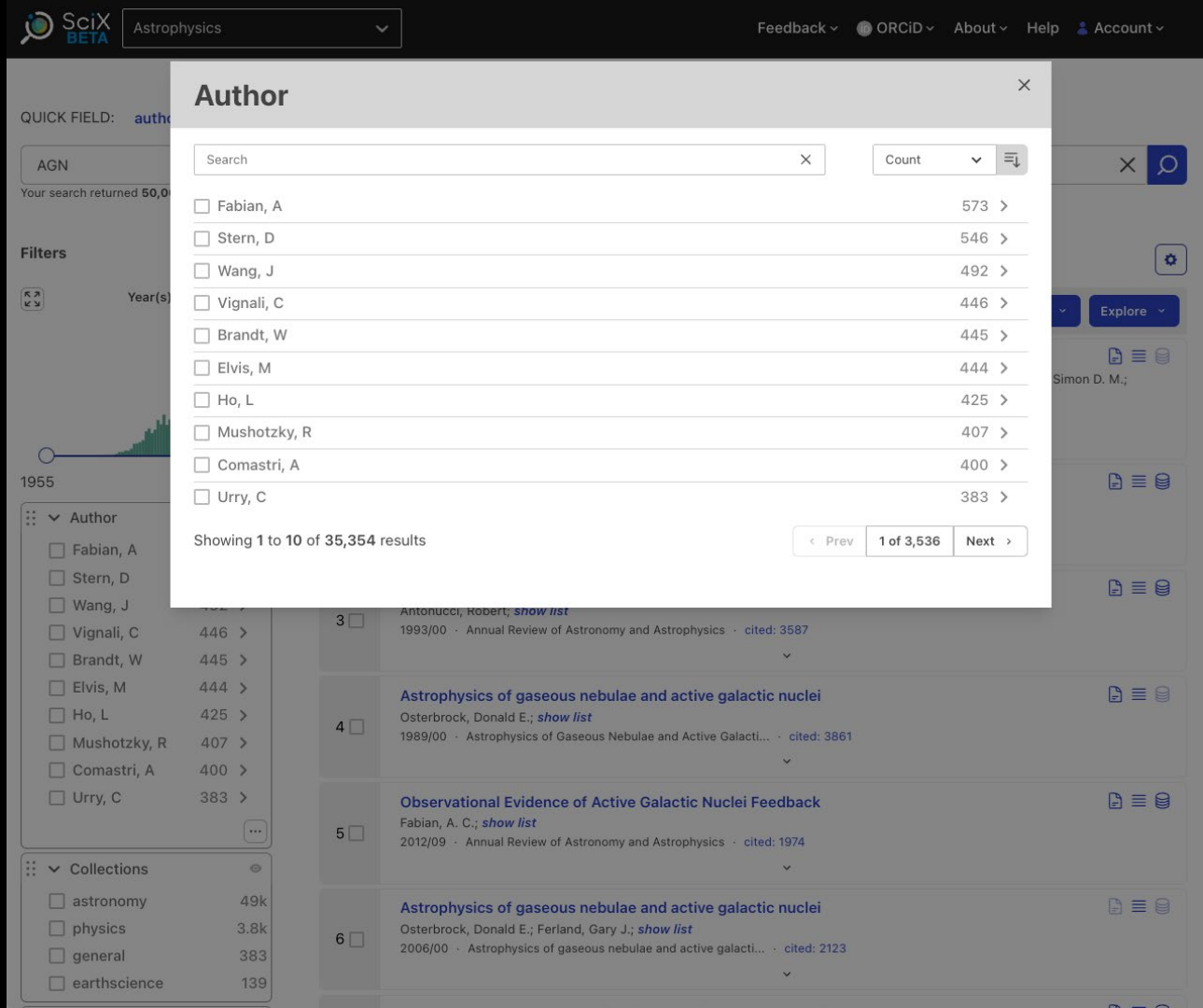
- Discipline specific “skins”
- Better handling of filters (paging, sorting & searching)



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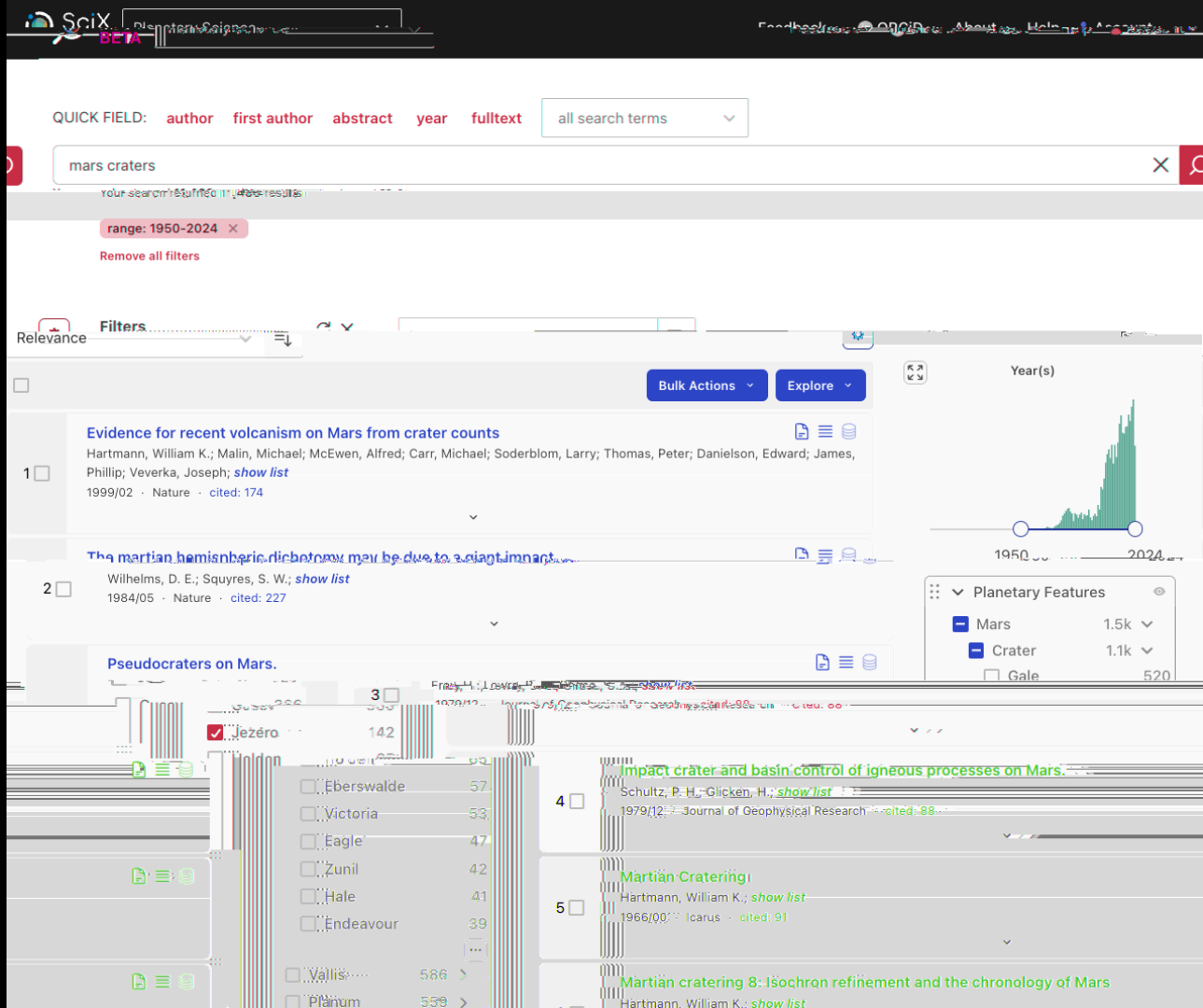
SciX is built on top of the same database and API, but has a few different features:

- Improved accessibility
- Discipline specific “skins”
- Better handling of filters
- Discipline-specific enhancements



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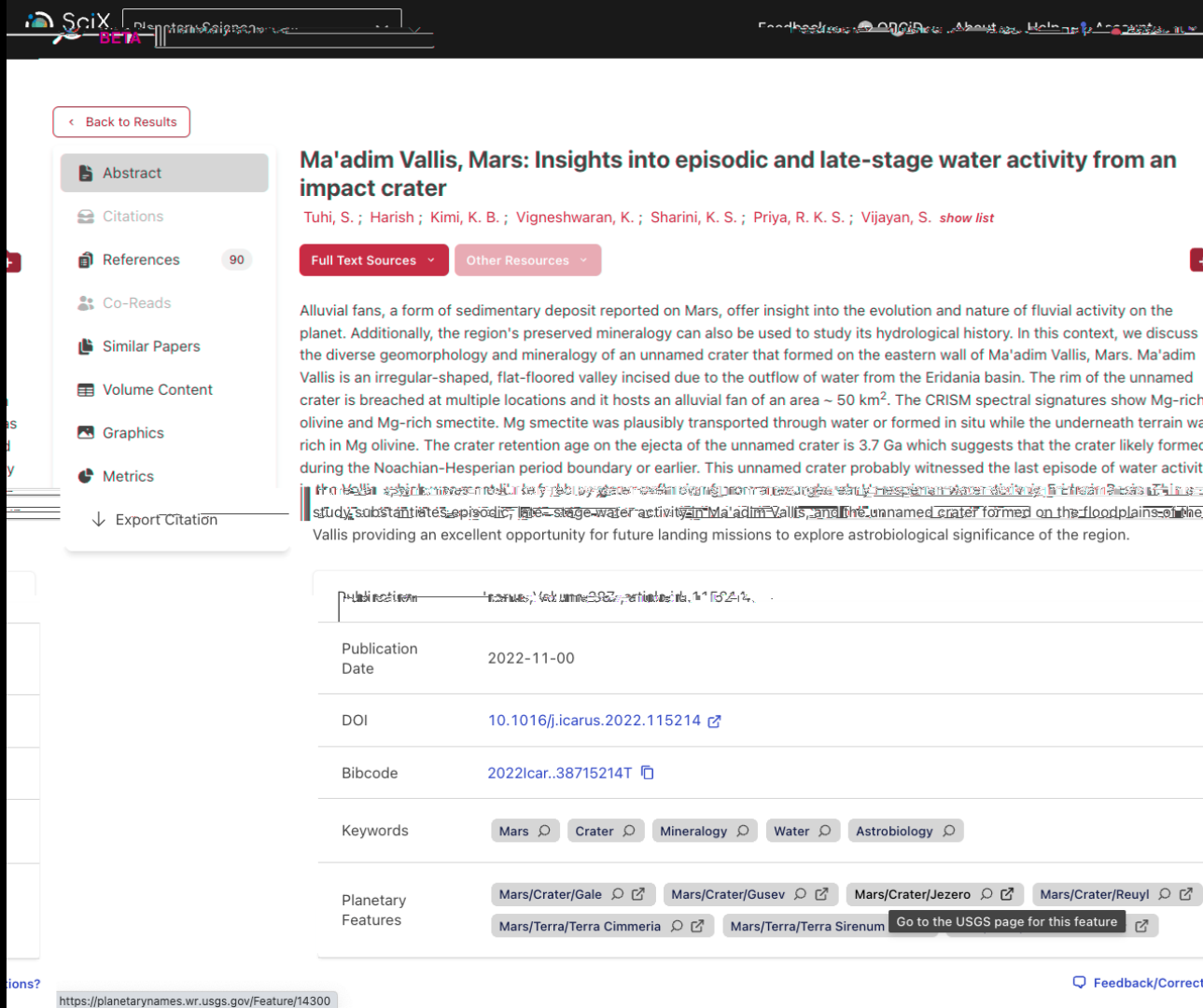
- Discipline specific “skins”
- Better handling of filters
- Discipline-specific enhancements (with links to additional resources)



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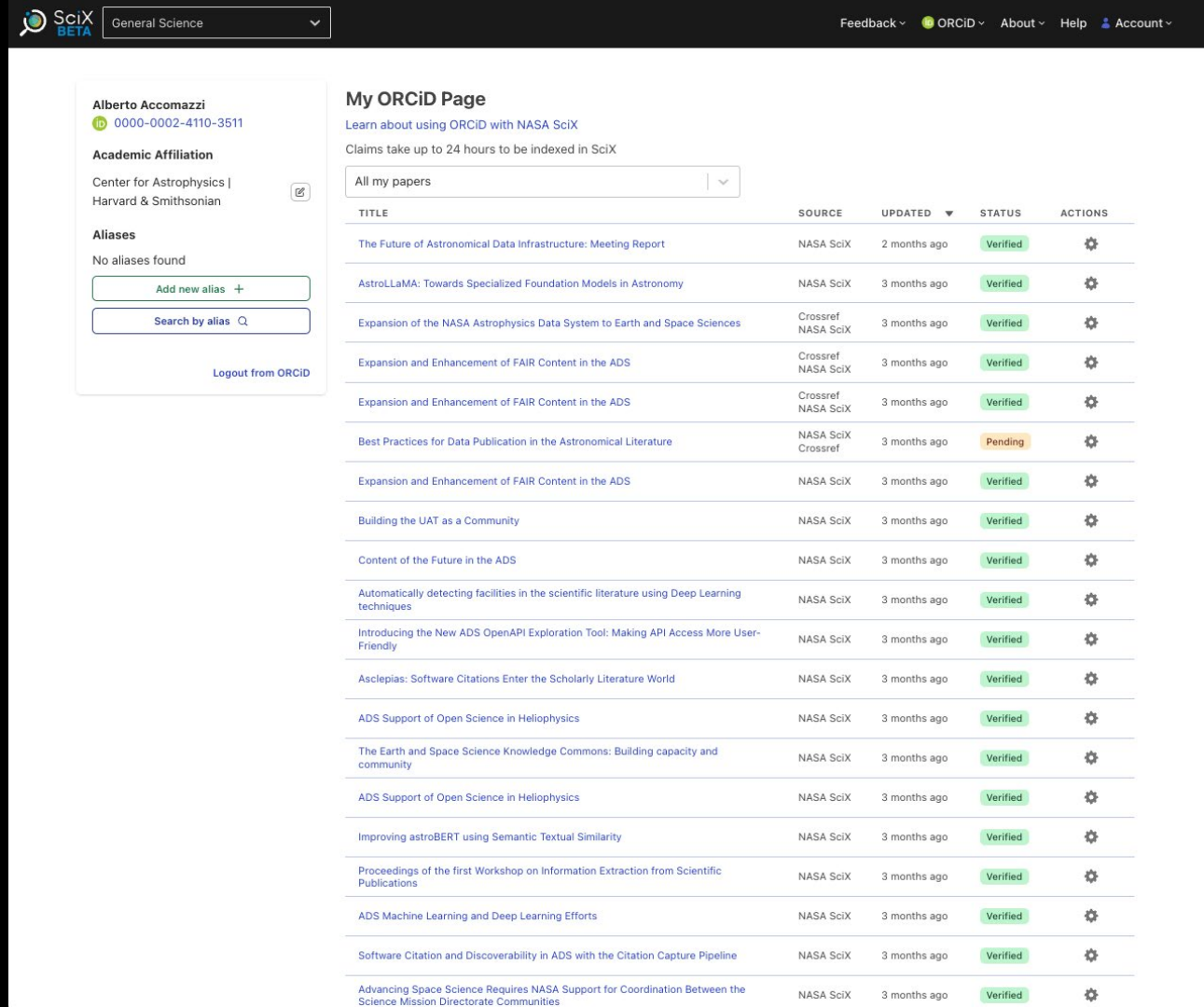
SciX is built on top of the same database and API, but has a few different features:

- Improved accessibility
- Discipline specific “skins”
- Better handling of filters
- Discipline-specific enhancements
- Improved ORCID integration



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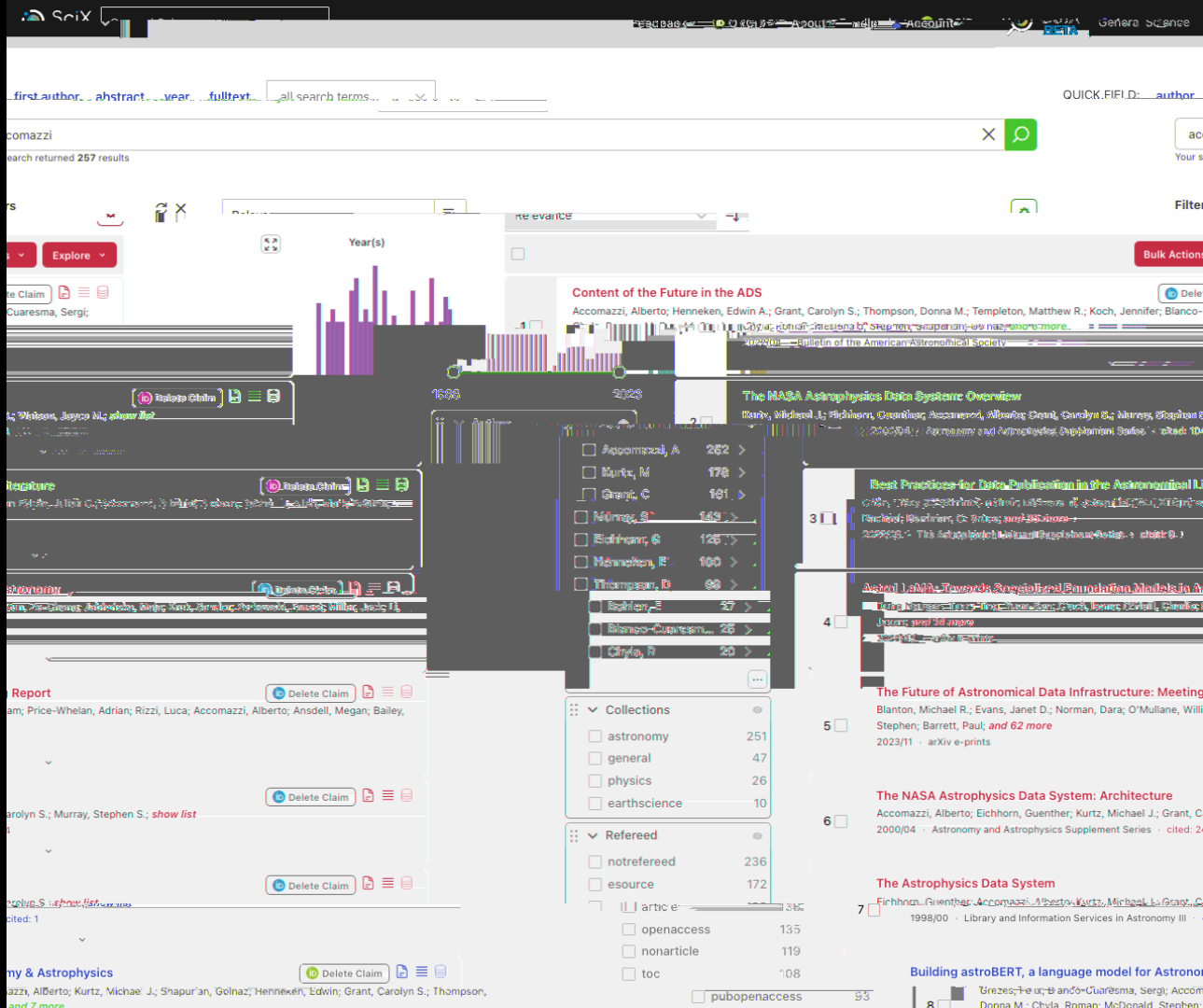
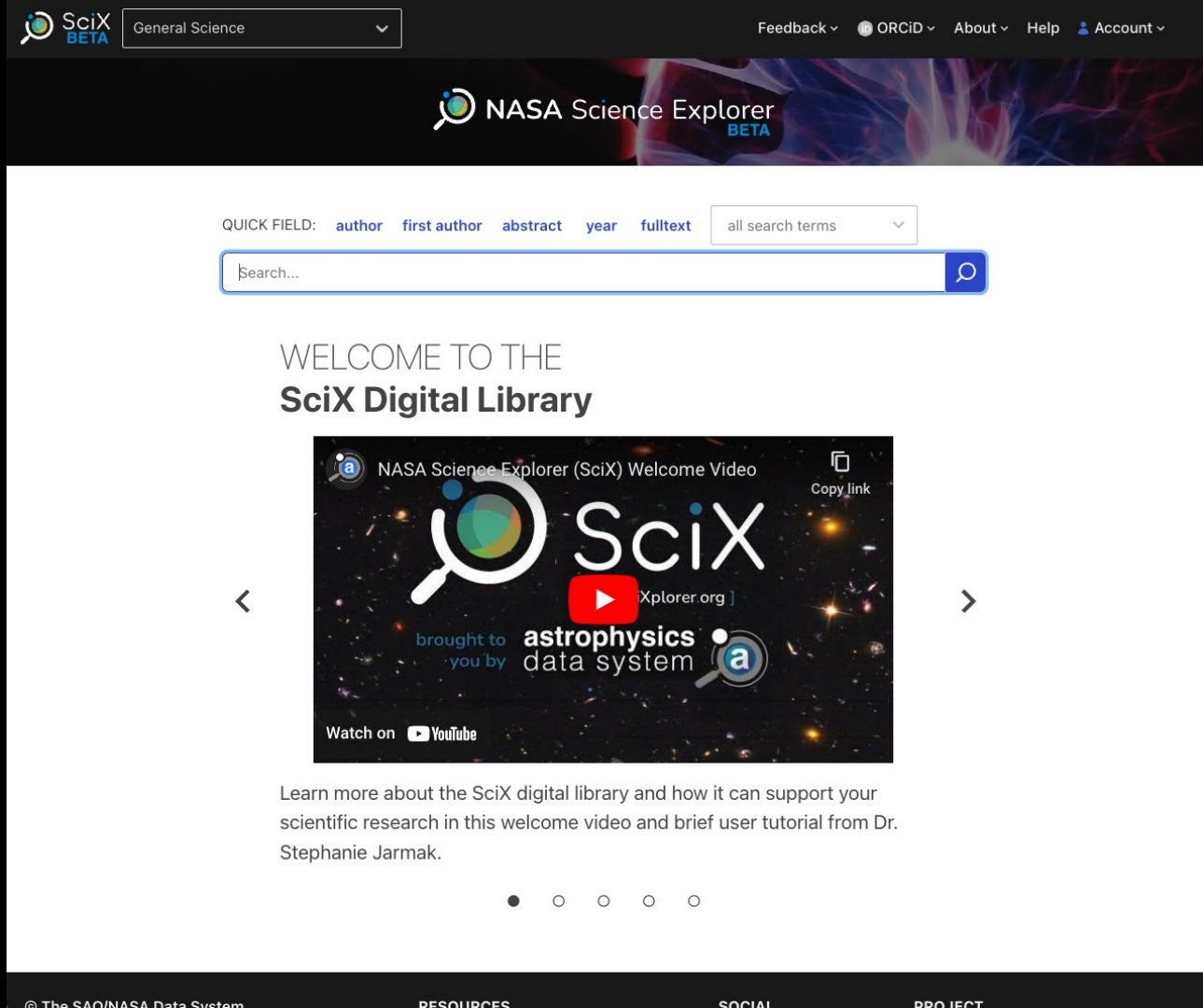
- Discipline specific “skins”
- Better handling of filters
- Discipline-specific enhancements
- Improved ORCID integration
- New default for search ranking (customizable)



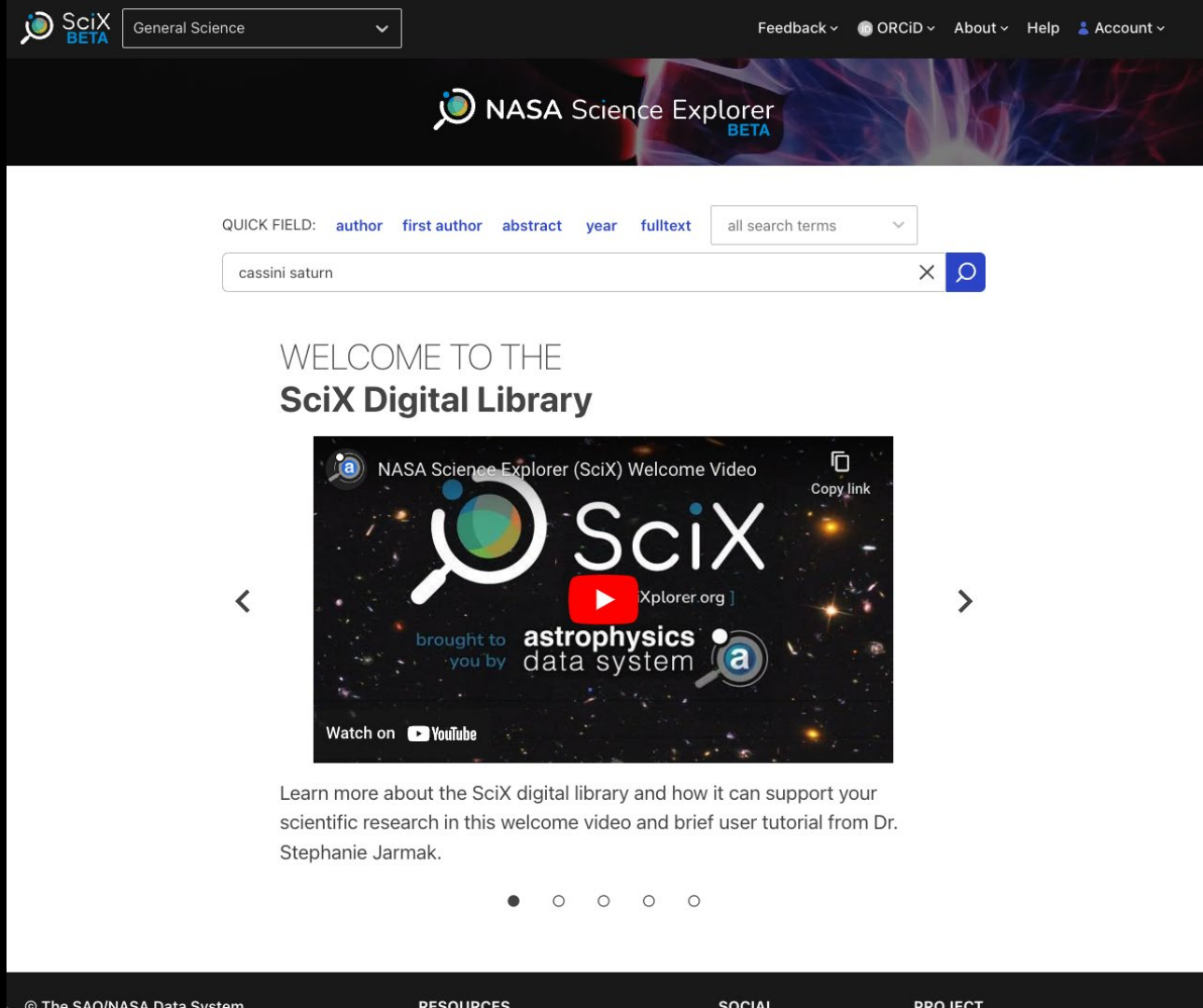
# How is SciX similar to ADS?

SciX is built on the same database and search engine, so no need to learn new search syntax or workflows:

- Type your query
- Filter the results
- Rank, analyze, visualize, refine
- Find citations, software, data products

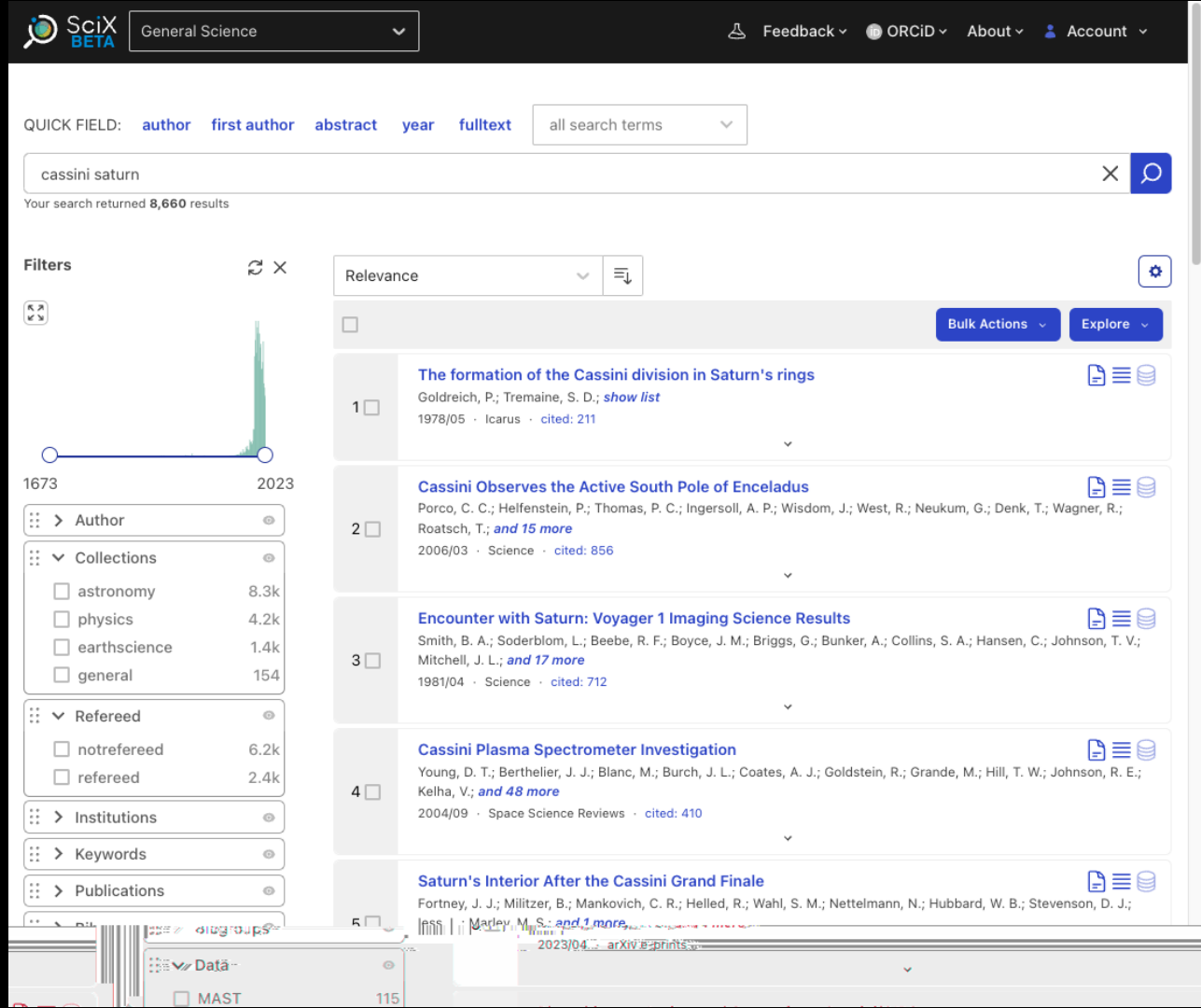


# Example search: cassini saturn



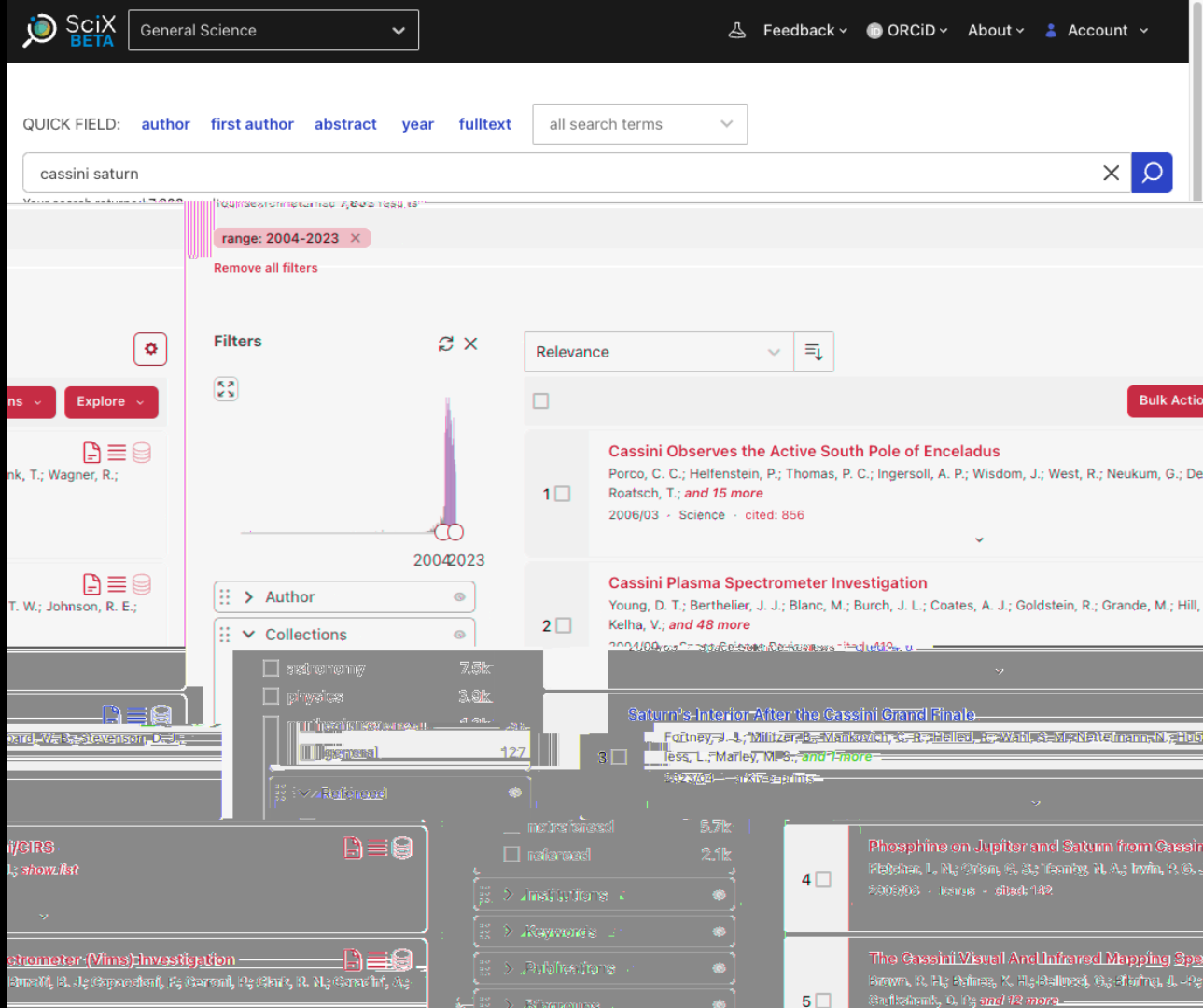
# Example search: cassini saturn

8,660 results, sorted by relevance



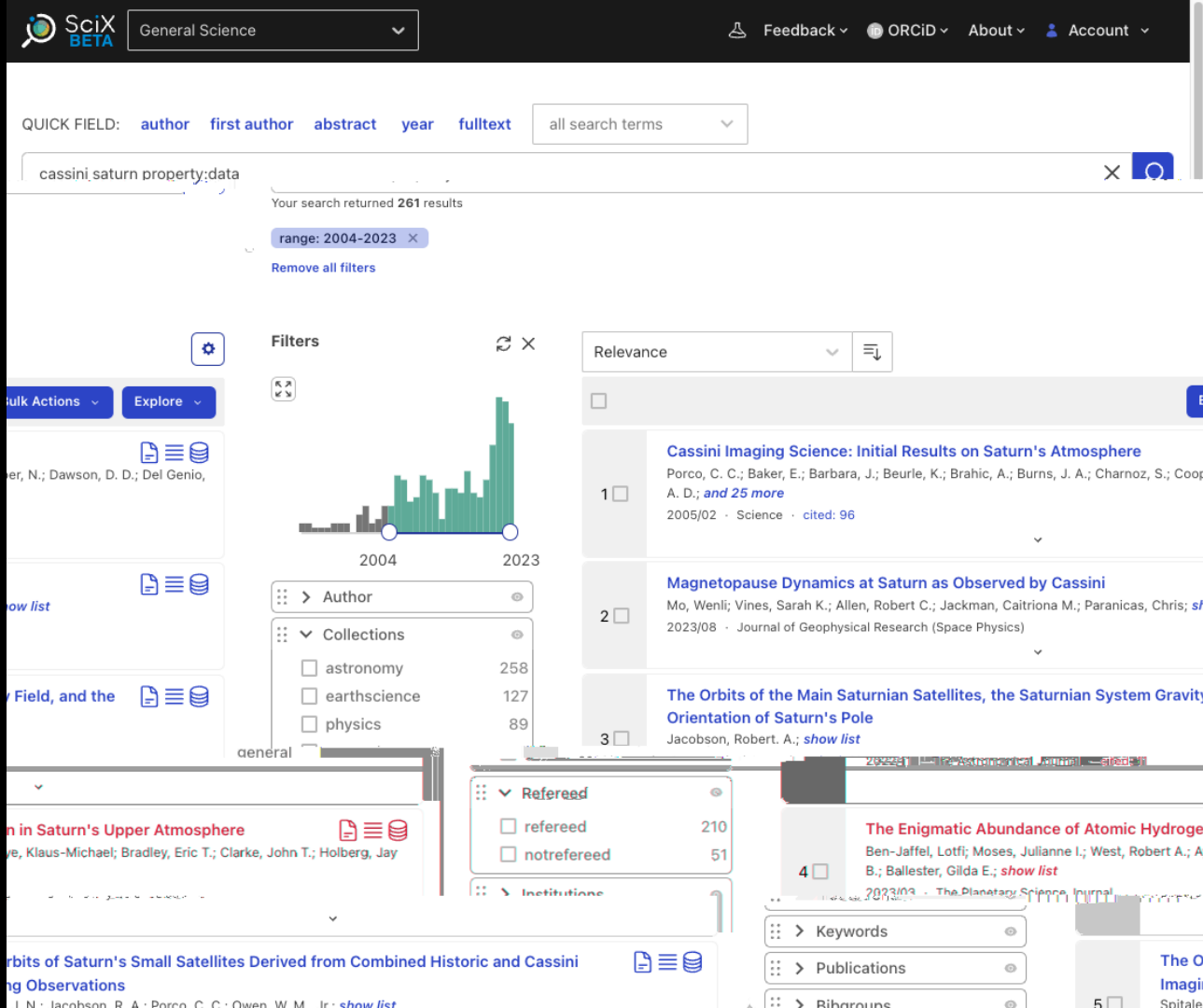
# Example search: cassini saturn

8,660 results, sorted by relevance
7,803 published in the last 20 years



# Example search:

8,660 results, sorted by relevance
7,803 published in the last 20 years
261 with data products



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8,660 results, sorted by relevance
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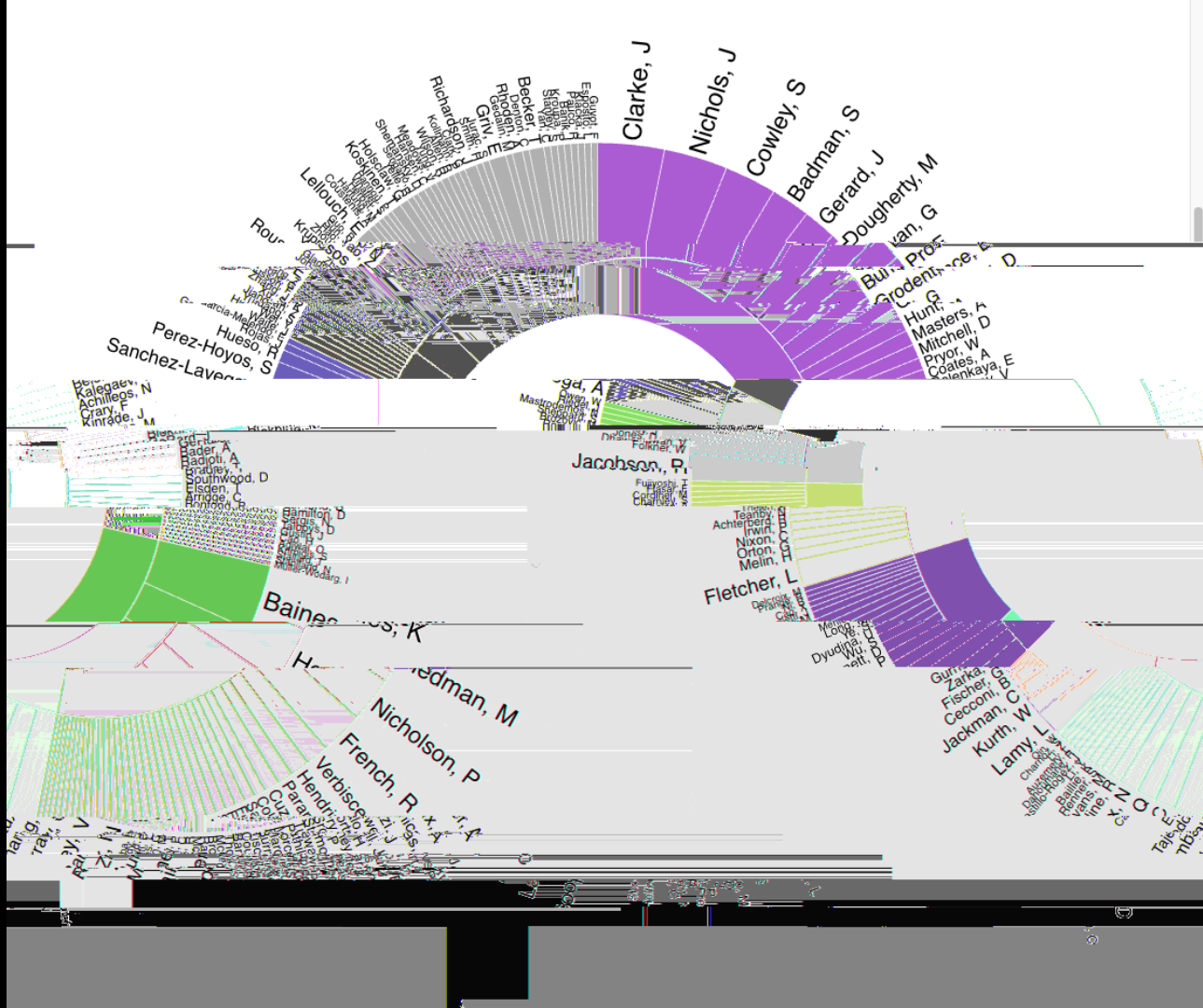
261 with data products
7 collaboration groups detected



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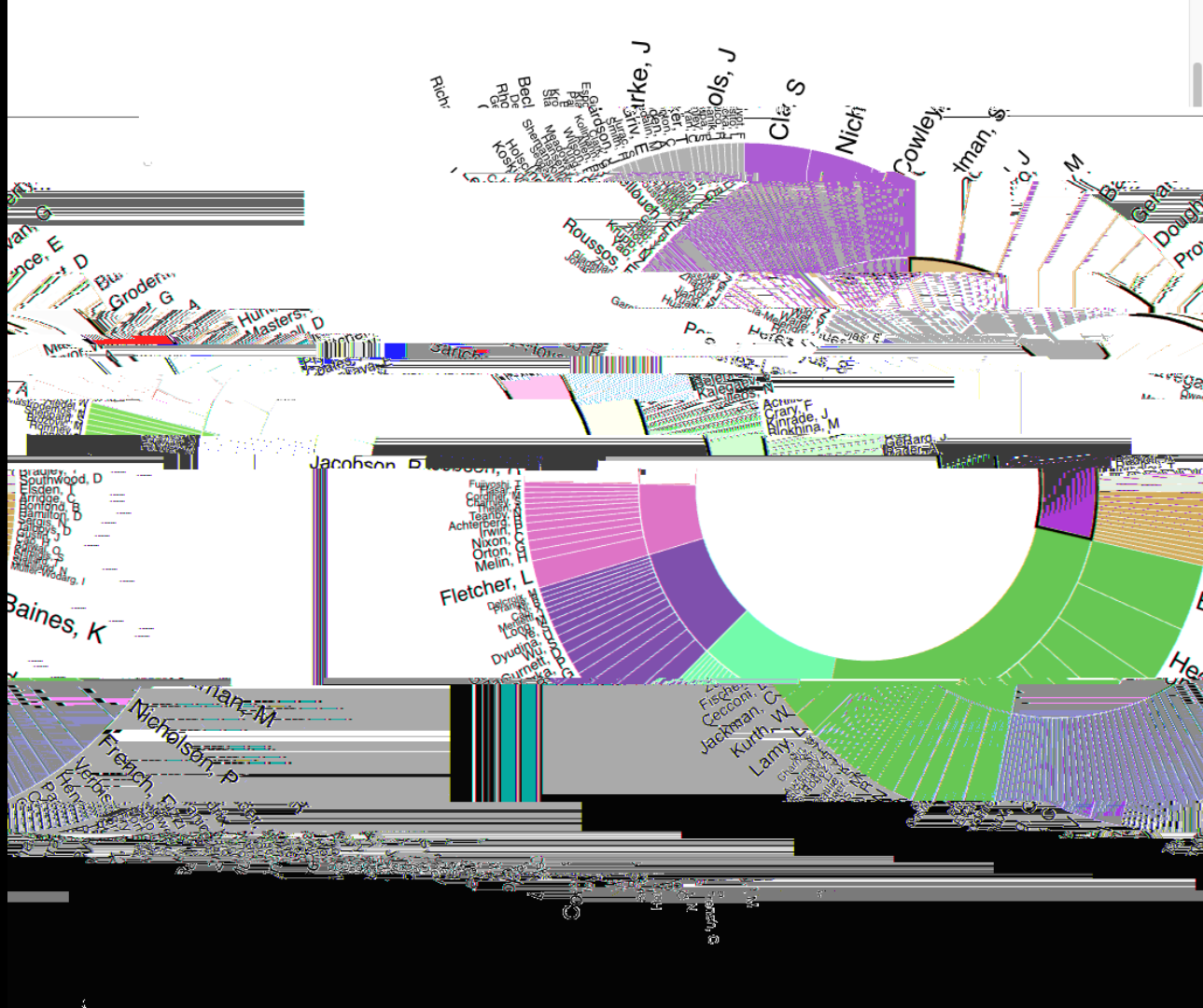

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261 with data products
7 collaboration groups detected
1 group selected
75 papers authored by group

Summary | Detail

## Group 1

Add to filter

Total papers: 75, most recent: 2023

1. Variable morphology of Saturn's southern ultraviolet aurora
   cited: 90; 5 authors from this group
2. Open flux estimates in Saturn's magnetosphere during the January 2004 Cassini-HST campaign, and implications for reconnection rates
   cited: 84; 6 authors from this group
3. Auroral current systems in Saturn's magnetosphere: comparison of theoretical models with Cassini and HST observations
   cited: 54; 10 authors from this group
4. Signature of Saturn's auroral cusp: Simultaneous Hubble Space Telescope FUV observations and upstream solar wind monitoring
   cited: 51; 6 authors from this group
5. Morphological differences between Saturn's ultraviolet aurorae and those of Earth and Jupiter
   cited: 129; 8 authors from this group
6. Recurrent energization of plasma in the midnight-to-dawn quadrant of Saturn's magnetosphere, and its relationship to auroral UV and radio emissions
   cited: 122; 8 authors from this group
7. On the origin of Saturn's outer auroral emission
   cited: 44; 4 authors from this group
8. Characterization of auroral current systems in Saturn's magnetosphere: High-latitude Cassini observations
   cited: 36; 6 authors from this group
9. Oscillation of Saturn's southern auroral oval
   cited: 79; 5 authors from this group

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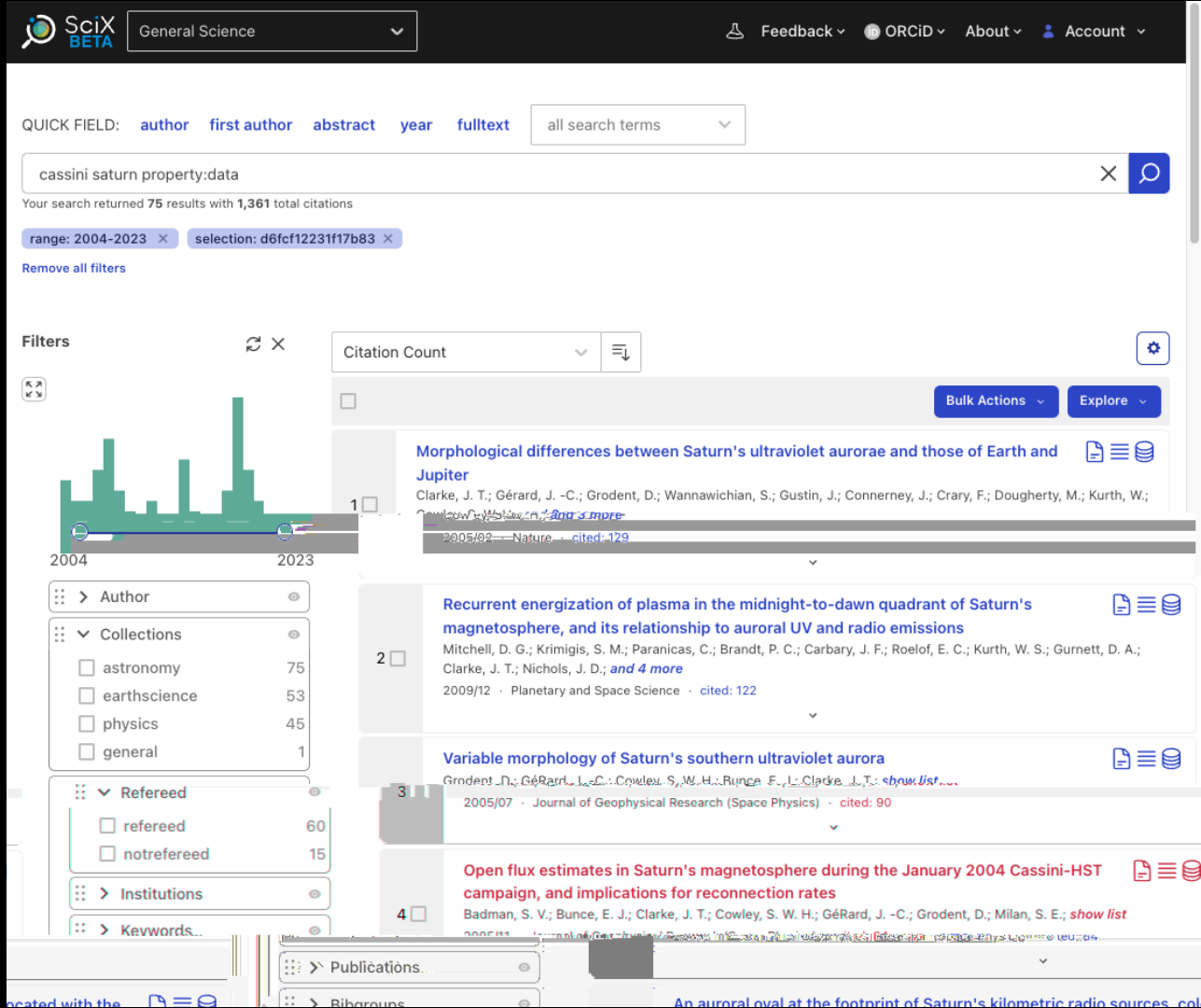
view papers sorted by citations



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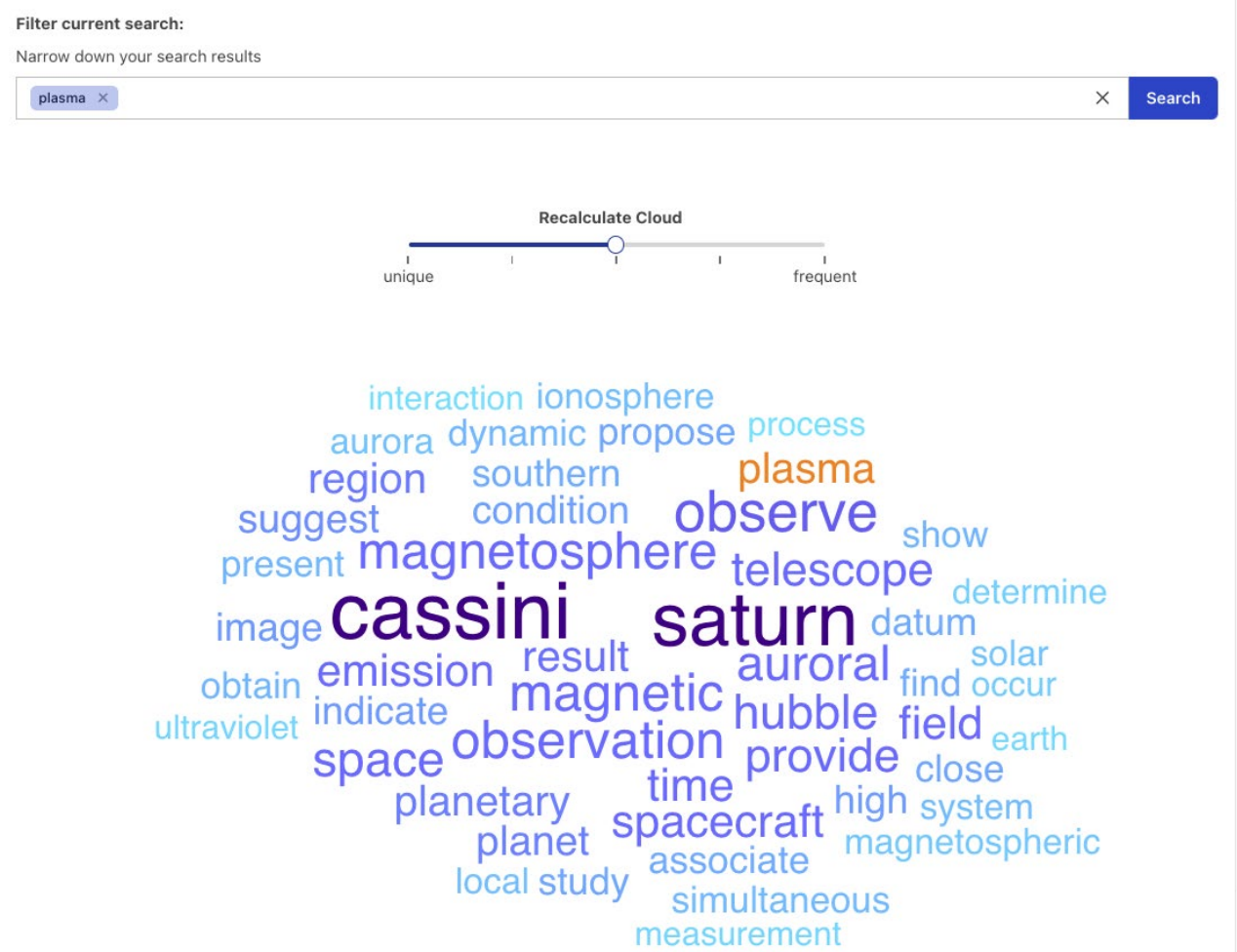
view & select concepts in papers



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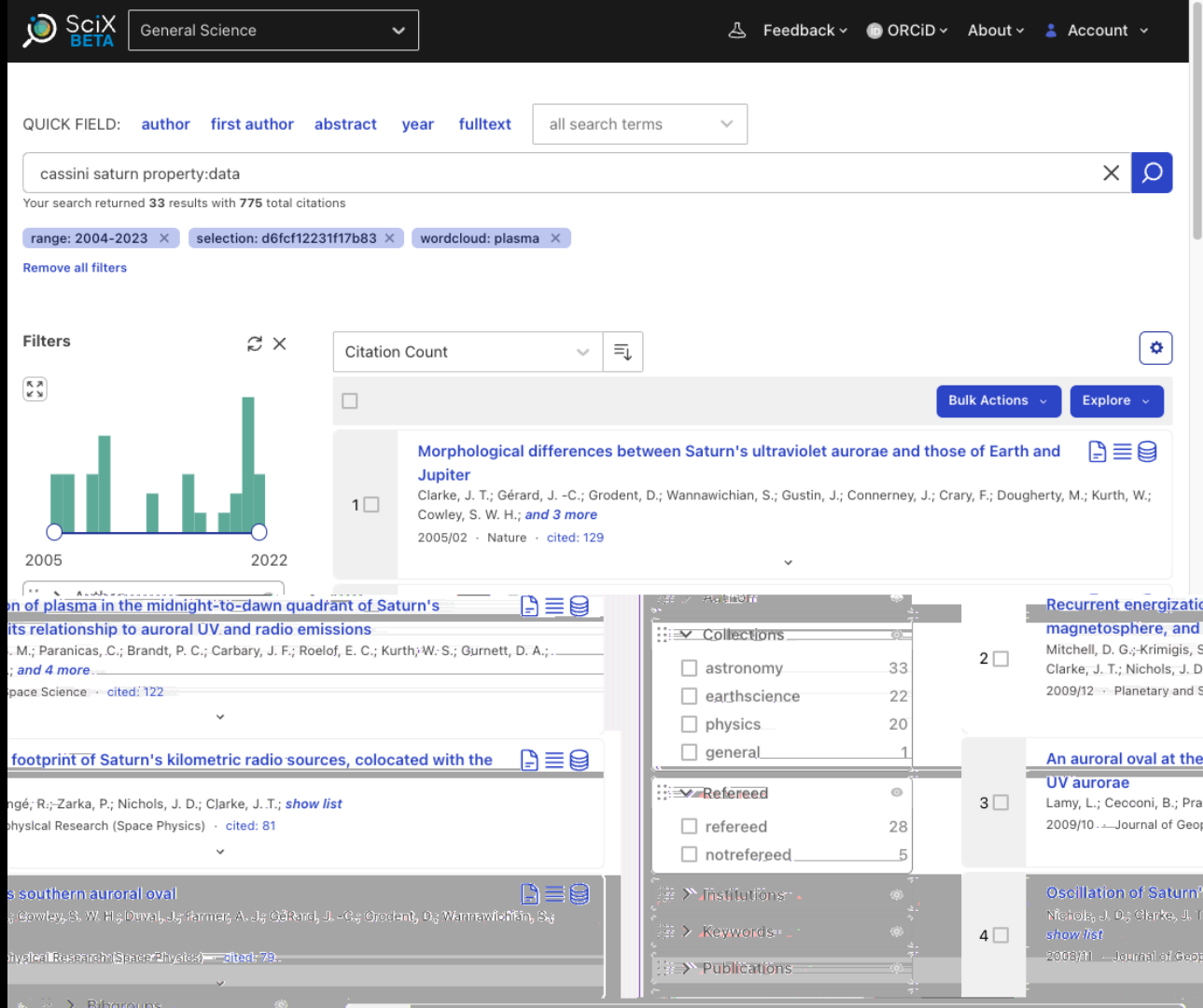
view papers sorted by citations
view & select concepts in papers
33 papers containing “plasma”



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view papers sorted by citations
view & select concepts in papers
33 papers containing “plasma”
9 of which have PDS data

2005 2022

- Author
- Collections
  - astronomy 33
  - earthscience 22
  - physics 20
  - general 1
- Refereed
  - refereed 28
  - notrefereed 5
- Institutions
- Keywords
- Publications
- Bibgroups
- Data
  - MAST 18
  - ESA 13
  - PDS 9
  - DATASOURCE 8
  - SIMBAD 3
  - Chandra 1
  - KOA 1
  - Zenodo 1

  limit to | exclude
- Publication Type
  - Article 28
  - Non-Article 5

Show hidden filters (1)

1 Clarke, J. T.; Gérard, J. -C.; Grodent, D.; Wannawichian, S.; Gustin, J.; Connerney, J.; Crary, F.; Dougherty, M.; Kurth, W.; Cowley, S. W. H.; *and 3 more*
2005/02 · Nature · cited: 129

2 **Recurrent energization of plasma in the midnight-to-dawn quadrant of Saturn's magnetosphere, and its relationship to auroral UV and radio emissions**
Mitchell, D. G.; Krimigis, S. M.; Paranicas, C.; Brandt, P. C.; Carbary, J. F.; Roelof, E. C.; Kurth, W. S.; Gurnett, D. A.; Clarke, J. T.; Nichols, J. D.; *and 4 more*
2009/12 · Planetary and Space Science · cited: 122

3 **An auroral oval at the footprint of Saturn's kilometric radio sources, colocated with the UV aurorae**
Lamy, L.; Cecconi, B.; Prangé, R.; Zarka, P.; Nichols, J. D.; Clarke, J. T.; *show list*
2009/10 · Journal of Geophysical Research (Space Physics) · cited: 81

4 **Oscillation of Saturn's southern auroral oval**
Nichols, J. D.; Clarke, J. T.; Cowley, S. W. H.; Duval, J.; Farmer, A. J.; GéRard, J. -C.; Grodent, D.; Wannawichian, S.; *show list*
2008/11 · Journal of Geophysical Research (Space Physics) · cited: 79

5 **Auroral current systems in Saturn's magnetosphere: comparison of theoretical models with Cassini and HST observations**
Cowley, S. W. H.; Arridge, C. S.; Bunce, E. J.; Clarke, J. T.; Coates, A. J.; Dougherty, M. K.; Gérard, J. -C.; Grodent, D.; Nichols, J. D.; Talboys, D. L.; *show list*
2008/09 · Annales Geophysicae · cited: 54

6 **Signature of Saturn's auroral cusp: Simultaneous Hubble Space Telescope FUV observations and upstream solar wind monitoring**
GéRard, Jean-Claude; Bunce, Emma J.; Grodent, Denis; Cowley, Stanley W. H.; Clarke, John T.; Badman, Sarah V.; *show list*
2005/11 · Journal of Geophysical Research (Space Physics) · cited: 51

7 **Radiation transport of heliospheric Lyman-α from combined Cassini and Voyager data sets**
Pryor, W.; Gangopadhyay, P.; Sandel, B.; Forrester, T.; Quemerais, E.; Möbius, E.; Esposito, L.; Stewart, I.; McClintock, W.; Jouchoux, A.; *and 8 more*
2008/11 · Astronomy and Astrophysics · cited: 42

**Characterization of auroral current systems in Saturn's magnetosphere: High-latitude**

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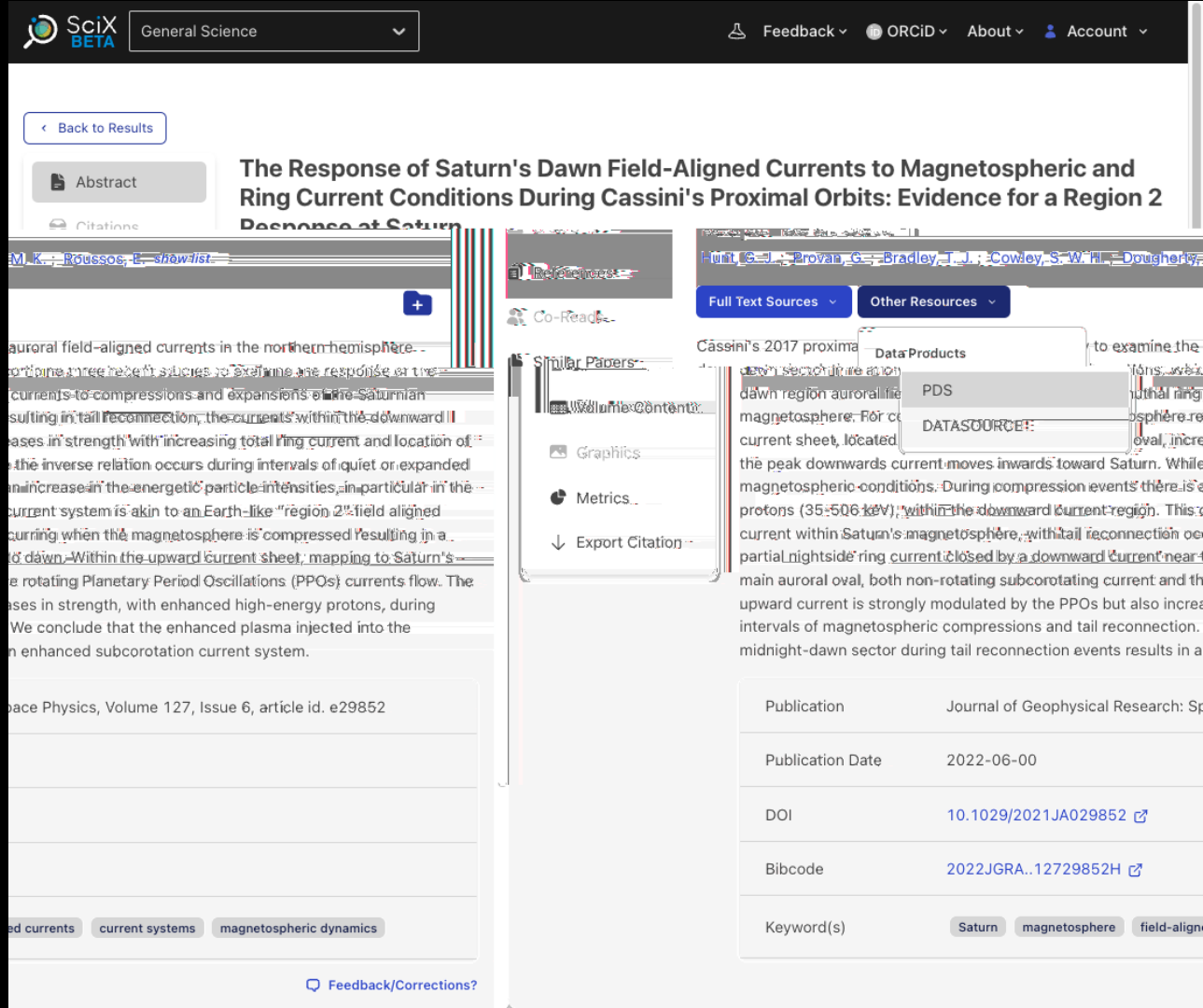

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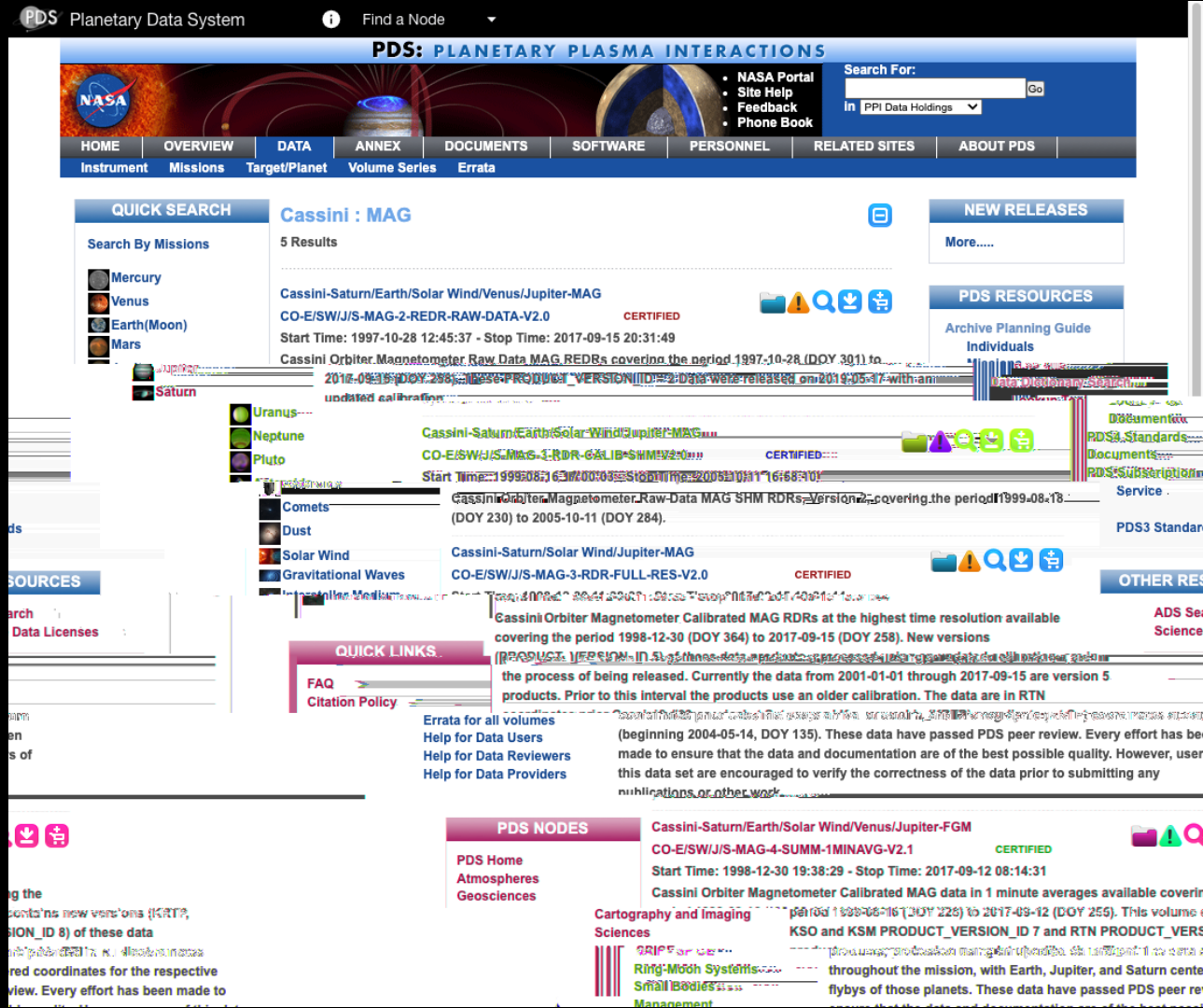
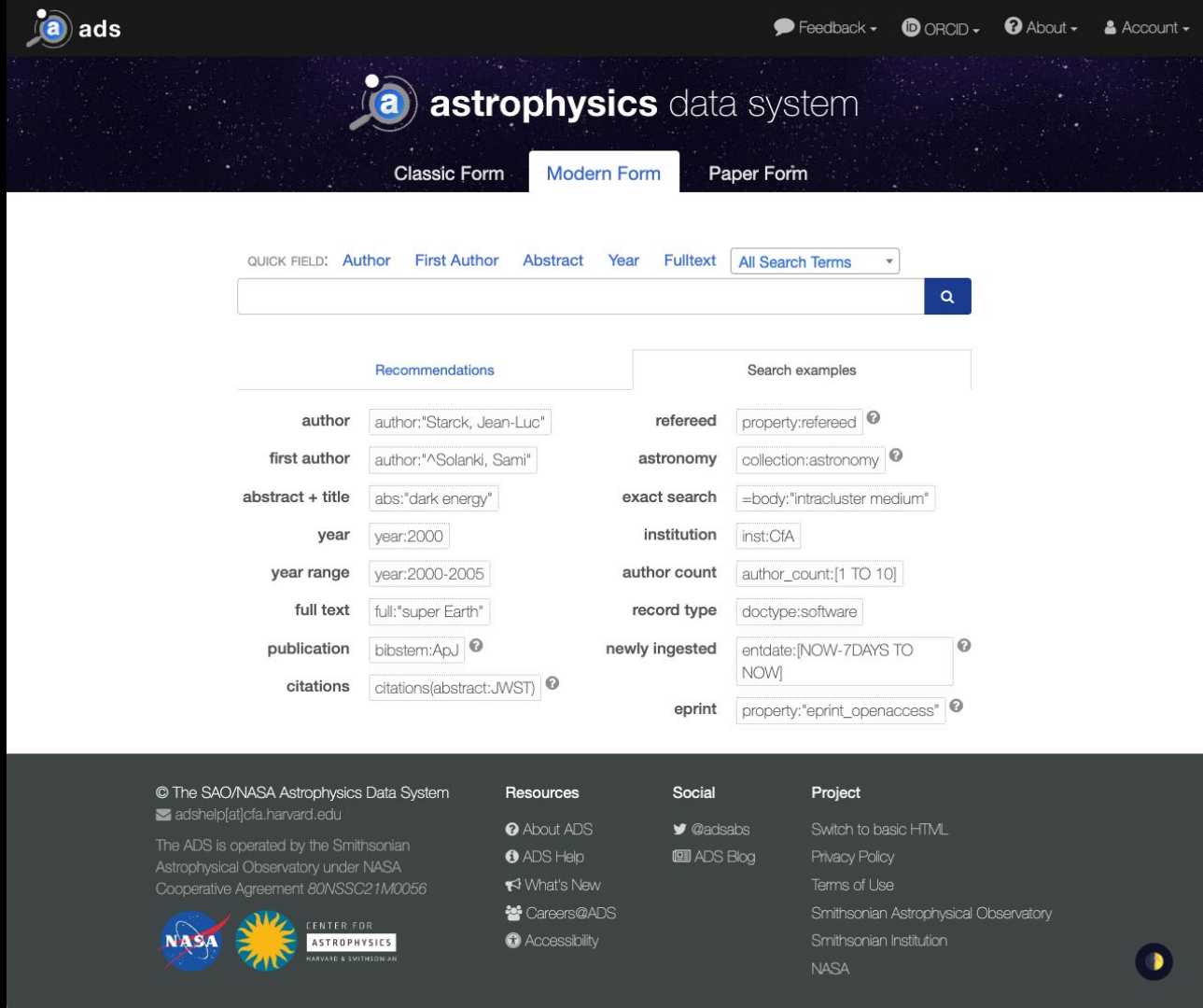
view associated PDS data



# What happens to ADS?

# ADS is not going away!

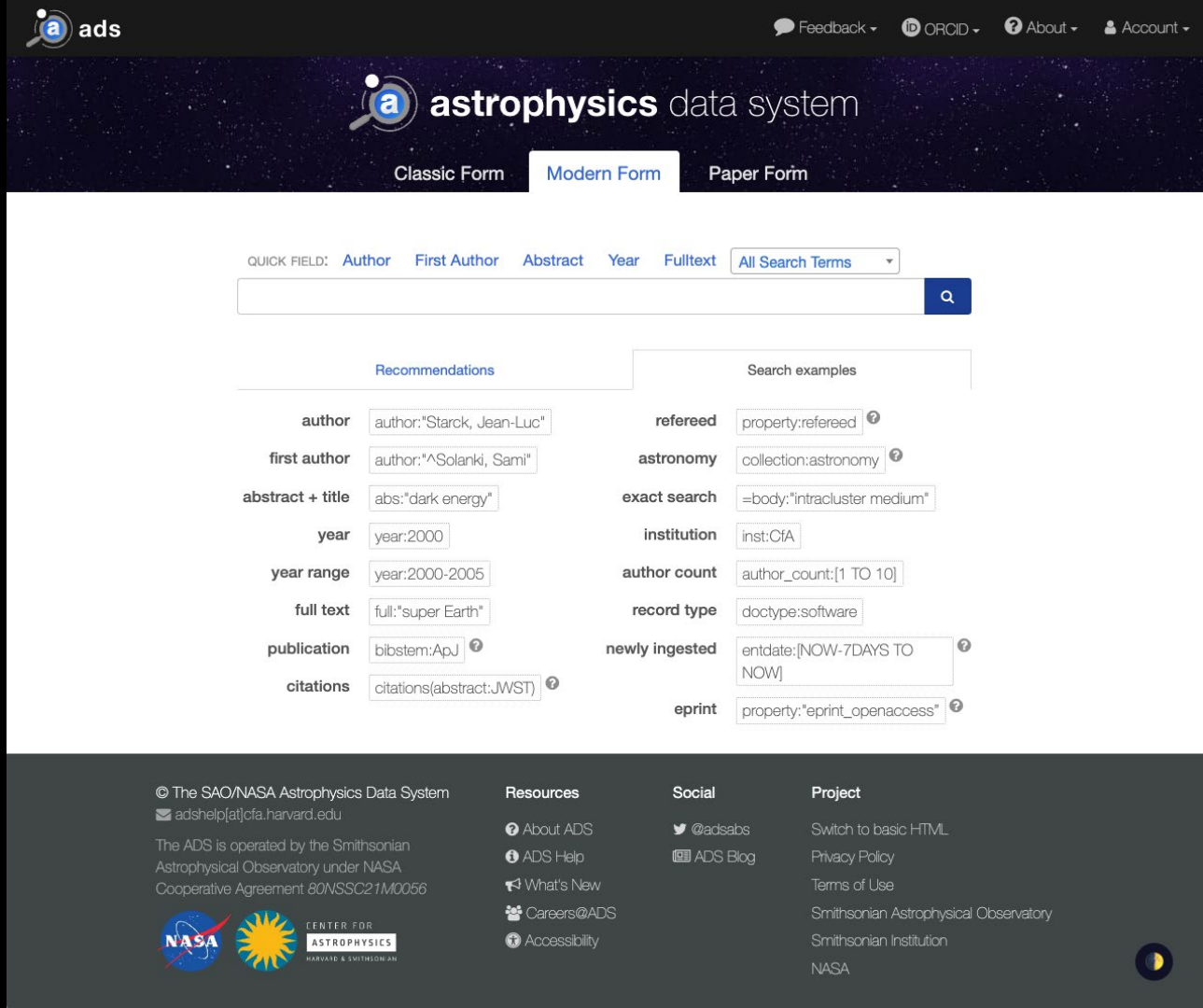
**ADS will remain accessible online in its current, familiar format. All links to ADS will remain valid forever**



# What happens to ADS?

## ADS Support will continue

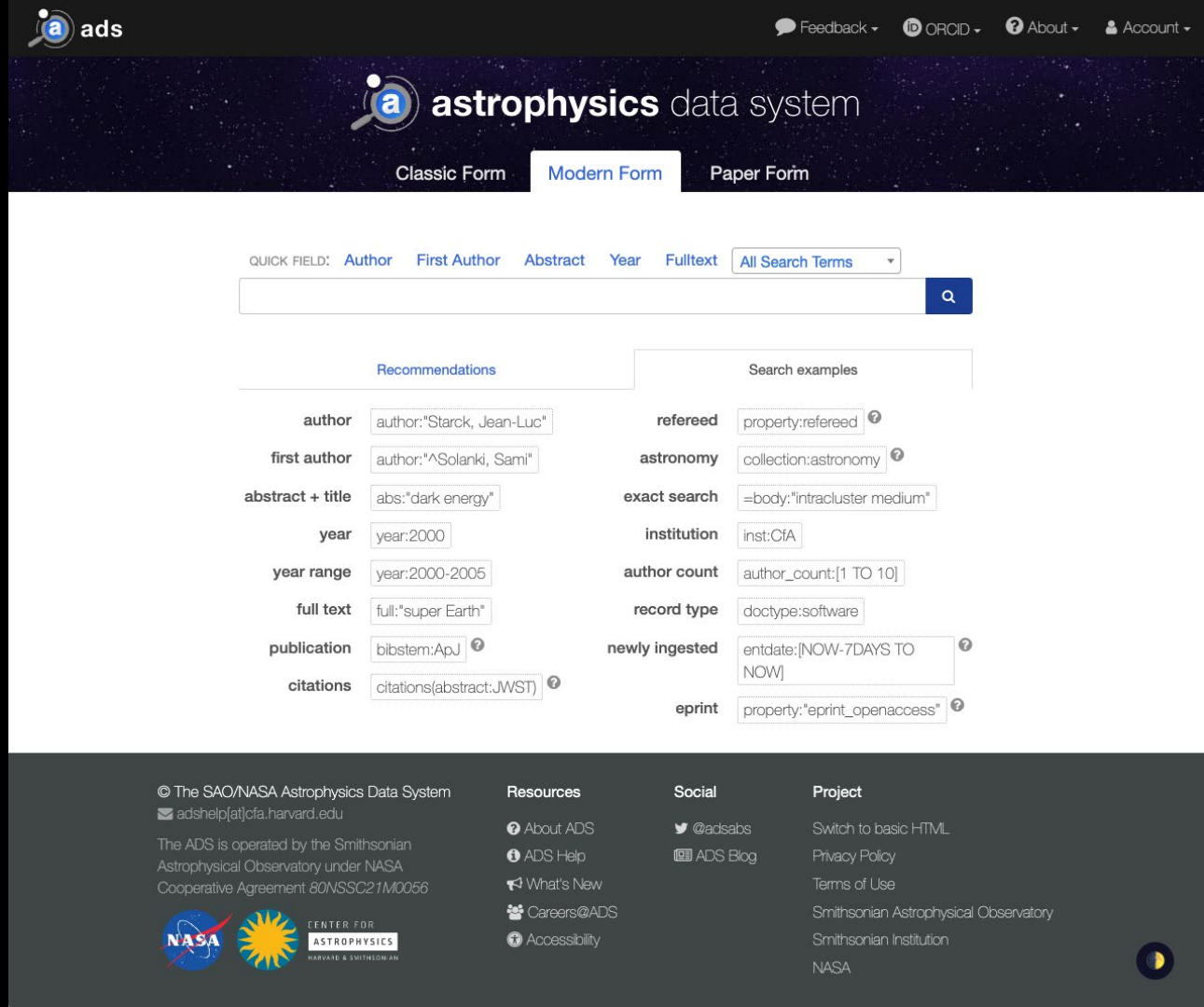
**Existing ADS support will continue throughout the transition, ensuring you have the assistance and resources you need whether you stick to ADS “as is” or explore SciX**



# What happens to ADS?

## Astrophysics remains a key focus

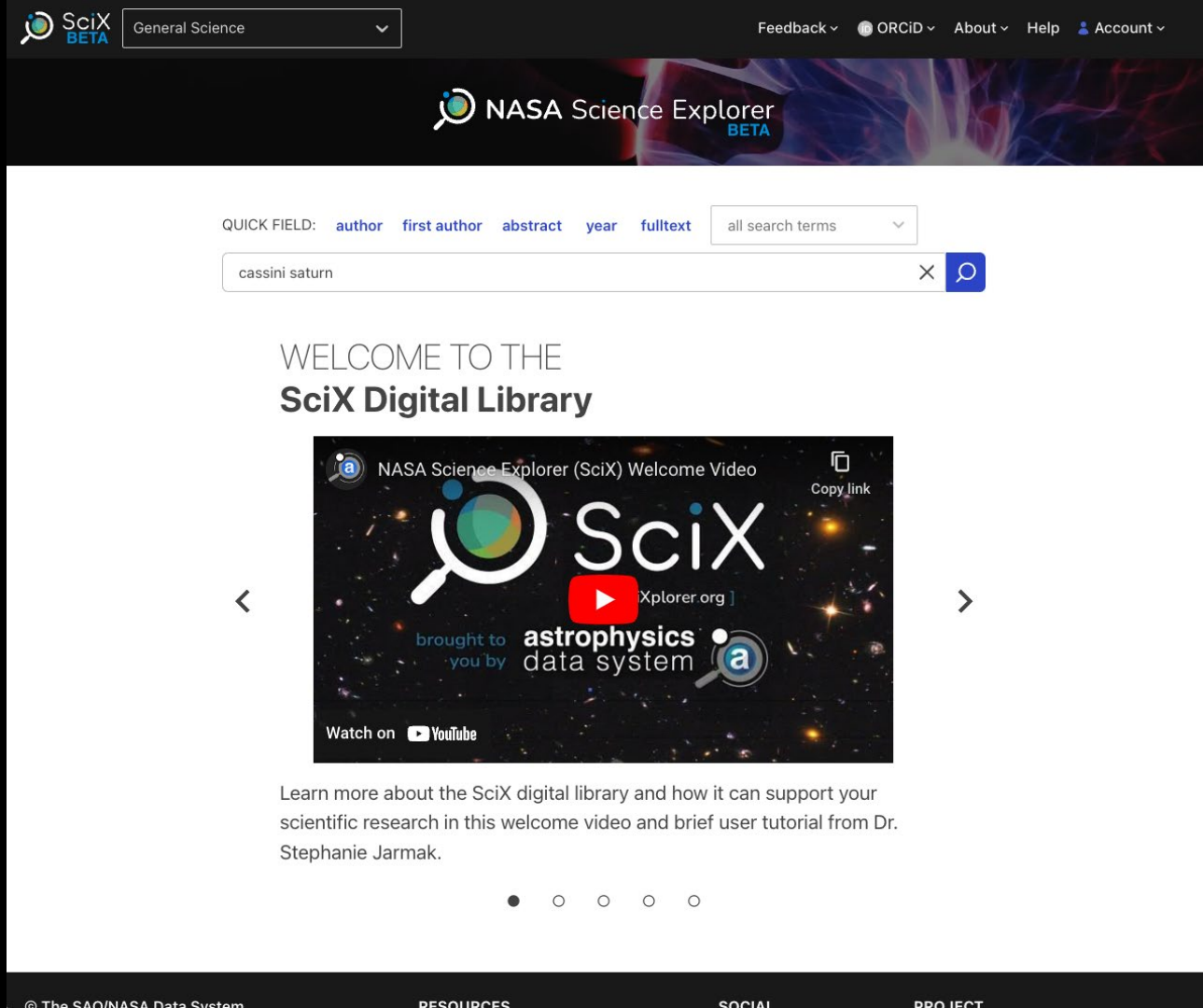
**SciX will retain a strong emphasis on astrophysics. New services will continue to be designed for astrophysics, providing models for other disciplines**



## Why should I use SciX?

## New Features will be developed in SciX

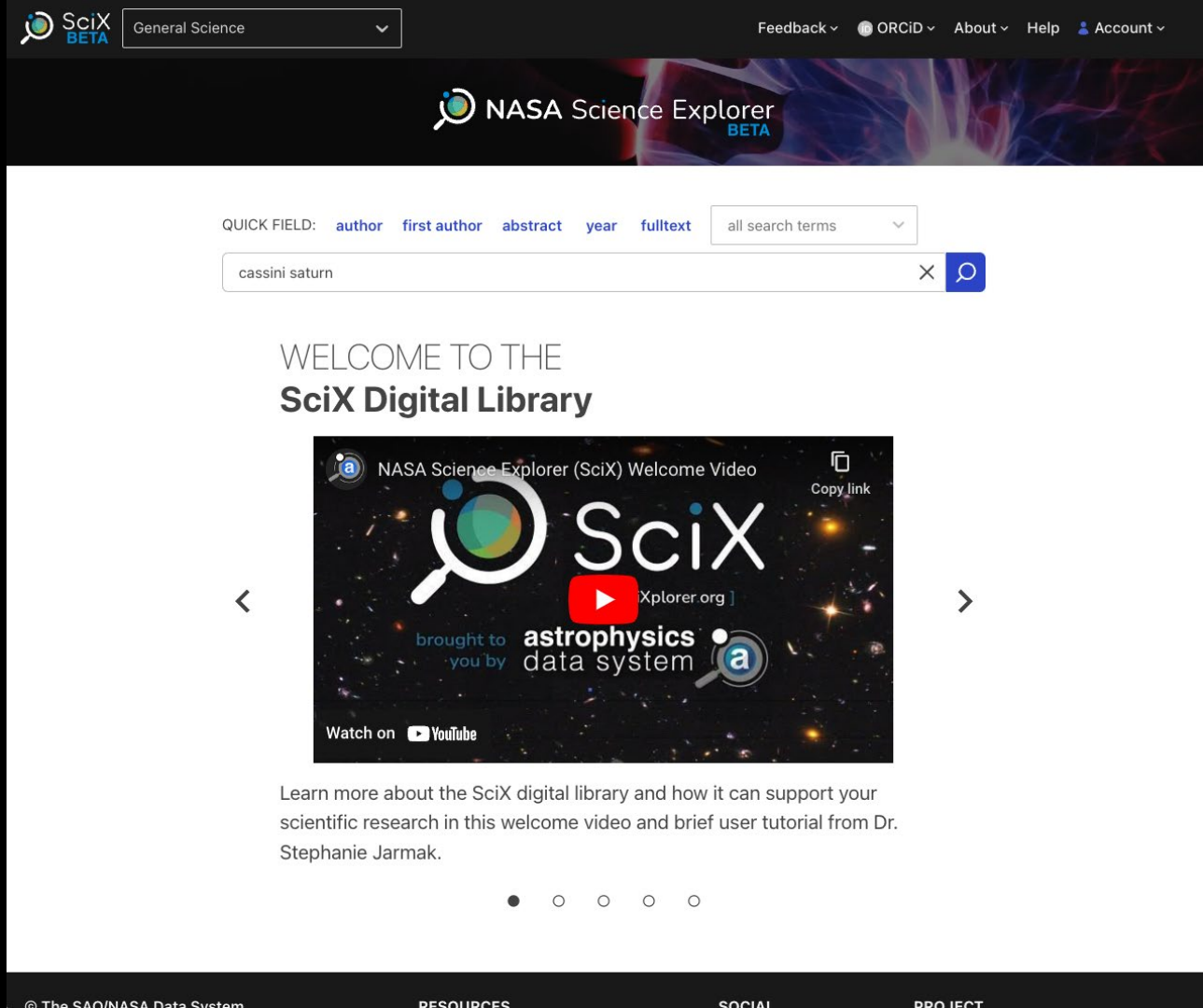
**The SciX platform is our development focus and the place where new capabilities and new content will be rolled out**



# Why should I use SciX?

## Disciplinary focus in an Interdisciplinary context

**We are committed to making sure the transition will increase, not decrease, research productivity and enable interdisciplinary research**

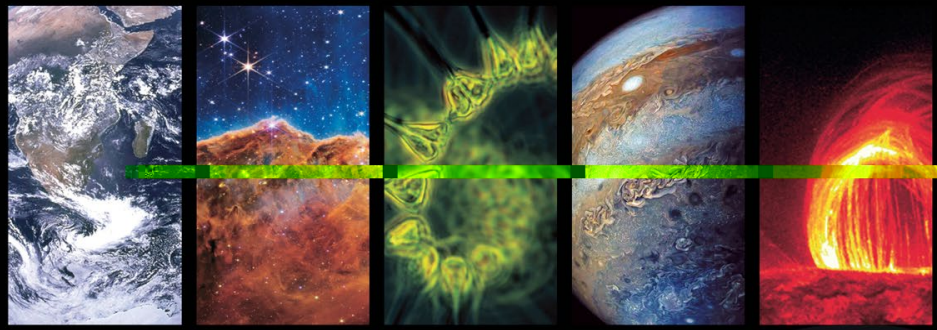


## Why the NASA Science Explorer?

- All of NASA Science
- Connected to the data
- Linked to the code

SciX

[ SciXplorer.org ]



NASA Science Explorer

*Accelerating the discovery of NASA Science.*

## Why the NASA Science Explorer?

- All of NASA Science
- Connected to the data
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Better than the rest…

- Open
- Trustworthy
- Complete
- Innovative
- Interdisciplinary
- Developed by scientists, for scientists

SciX

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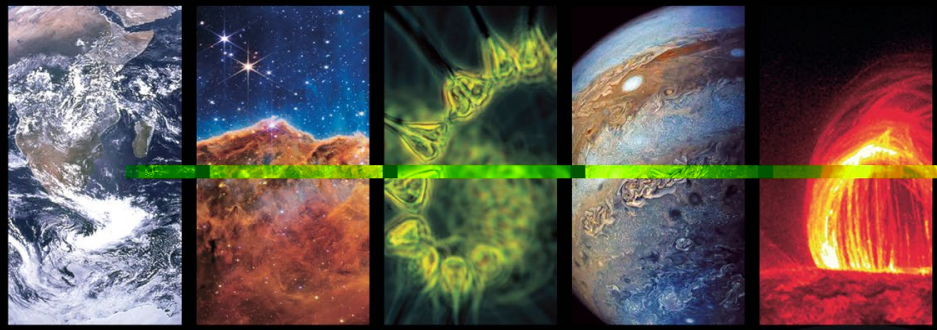

NASA Science Explorer

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# Thank You!

SciX

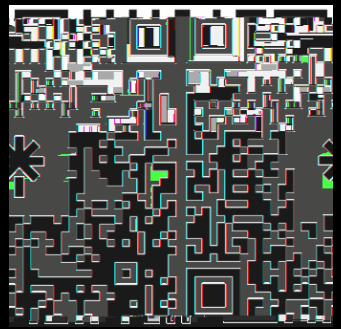
[ SciXplorer.org ]

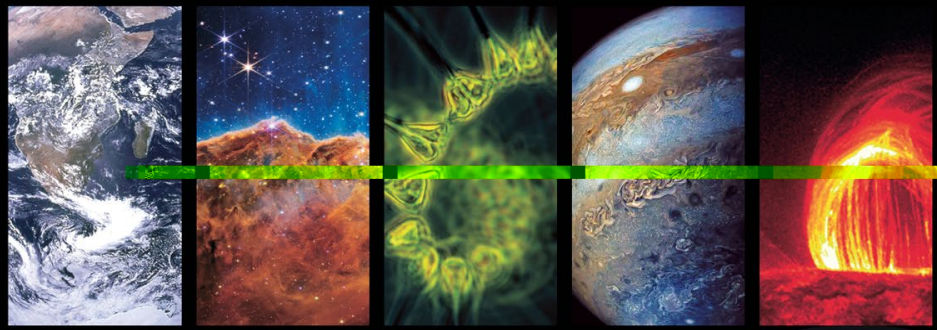
For more information:

**https://SciXplorer.org**

**@SciXCommunity**

Visit us at booth #315





NASA Science Explorer

*Accelerating the discovery of NASA Science.*