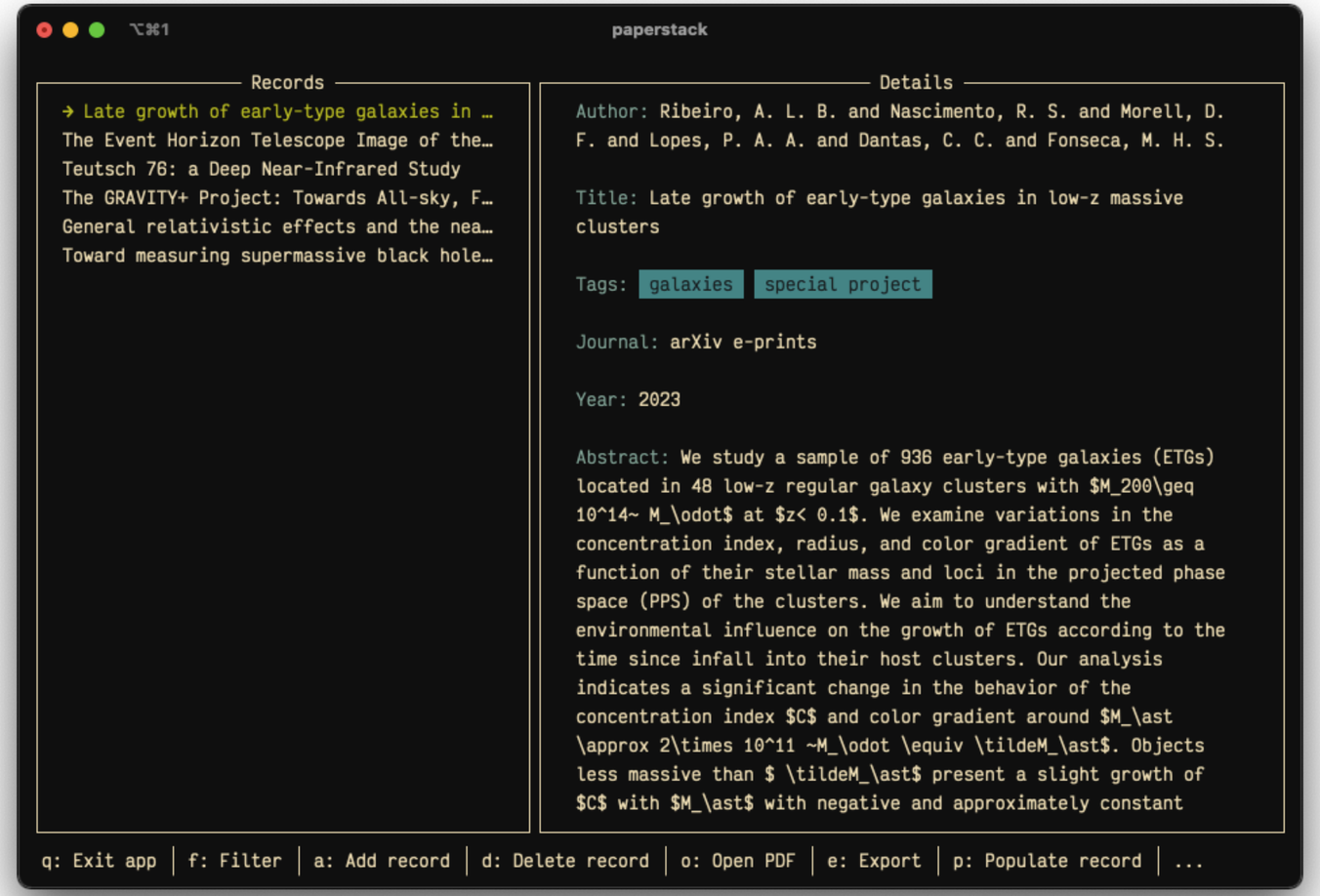
# PAPERSTACK

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# PAPERSTACK

- Bibliography management tool
- Lightweight and portable
- Extensible and useful to extend
- Free and open source
- Transparent data
- Completely terminal-based

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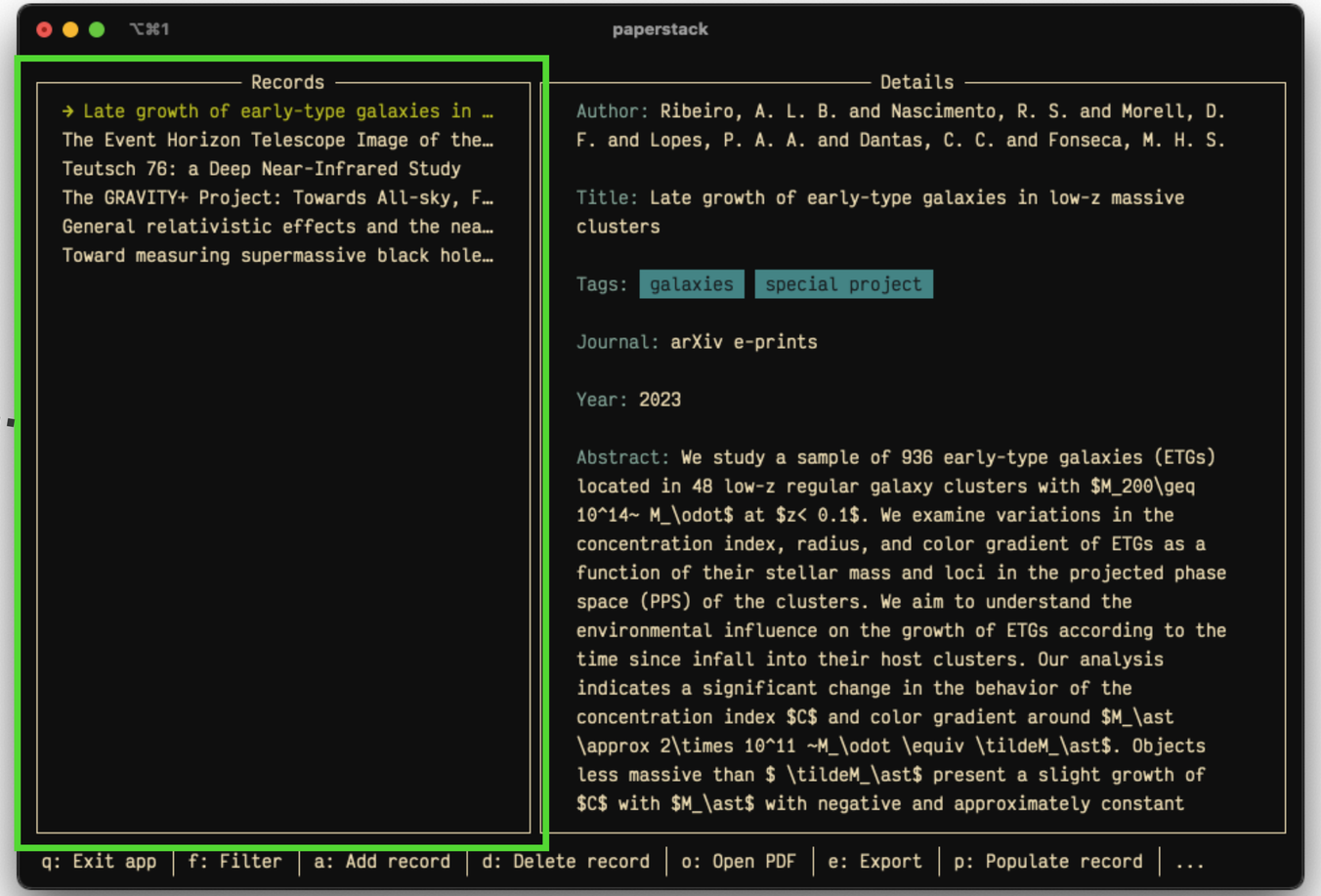
# Why not Mendeley or Zotero?

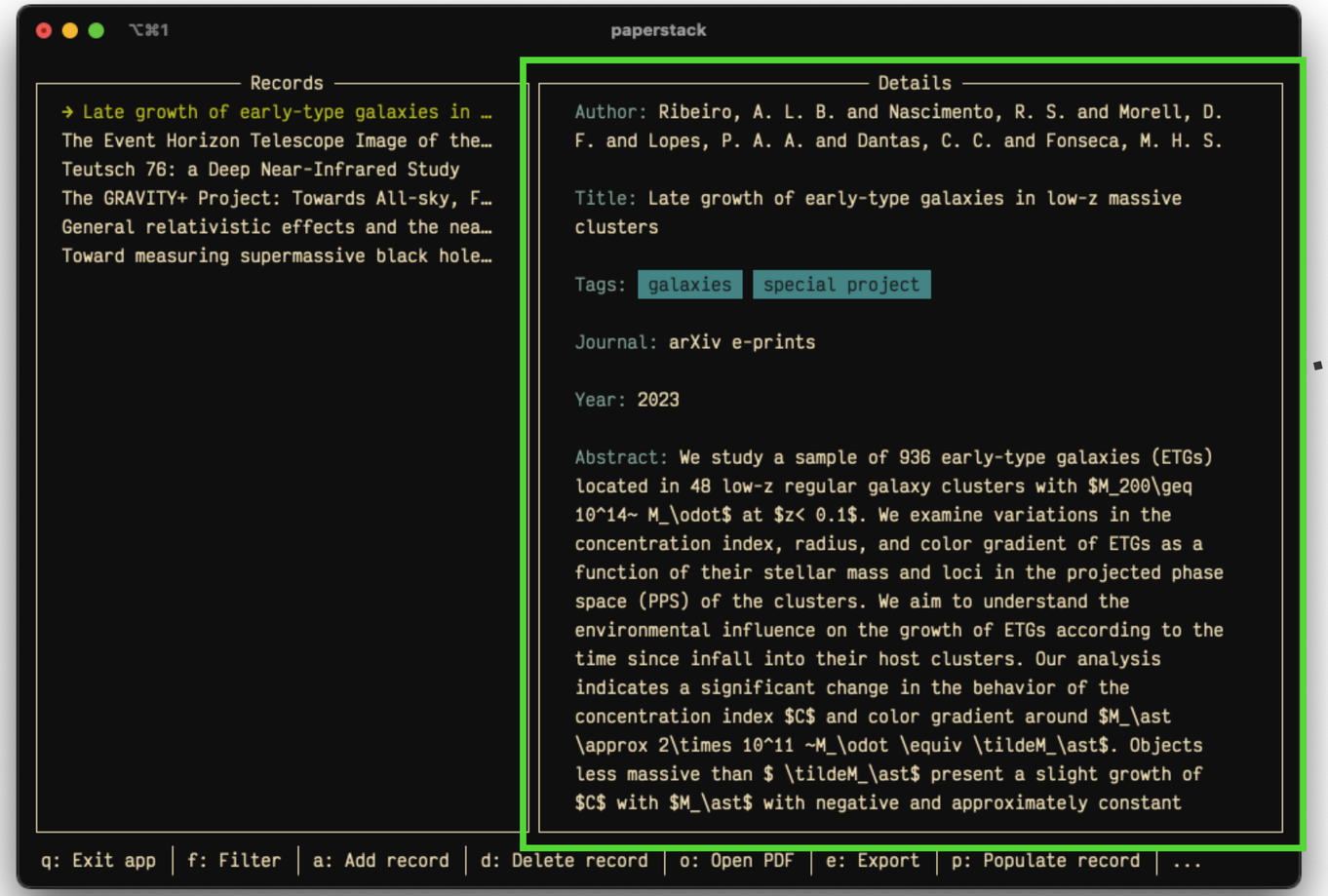
- Lightweight (146 KB, smaller than a typical JPEG)
  - Lets other services take care of what they do best
- Universal and portable
- Transparent data storage
- Integration open to virtually any extensible program
- Naturally suited for batch actions and scripting
- You can still use them in tandem with Paperstack!

# Interface

Records: List of selectable article titles



# Interface




Details: Added information about the selected article

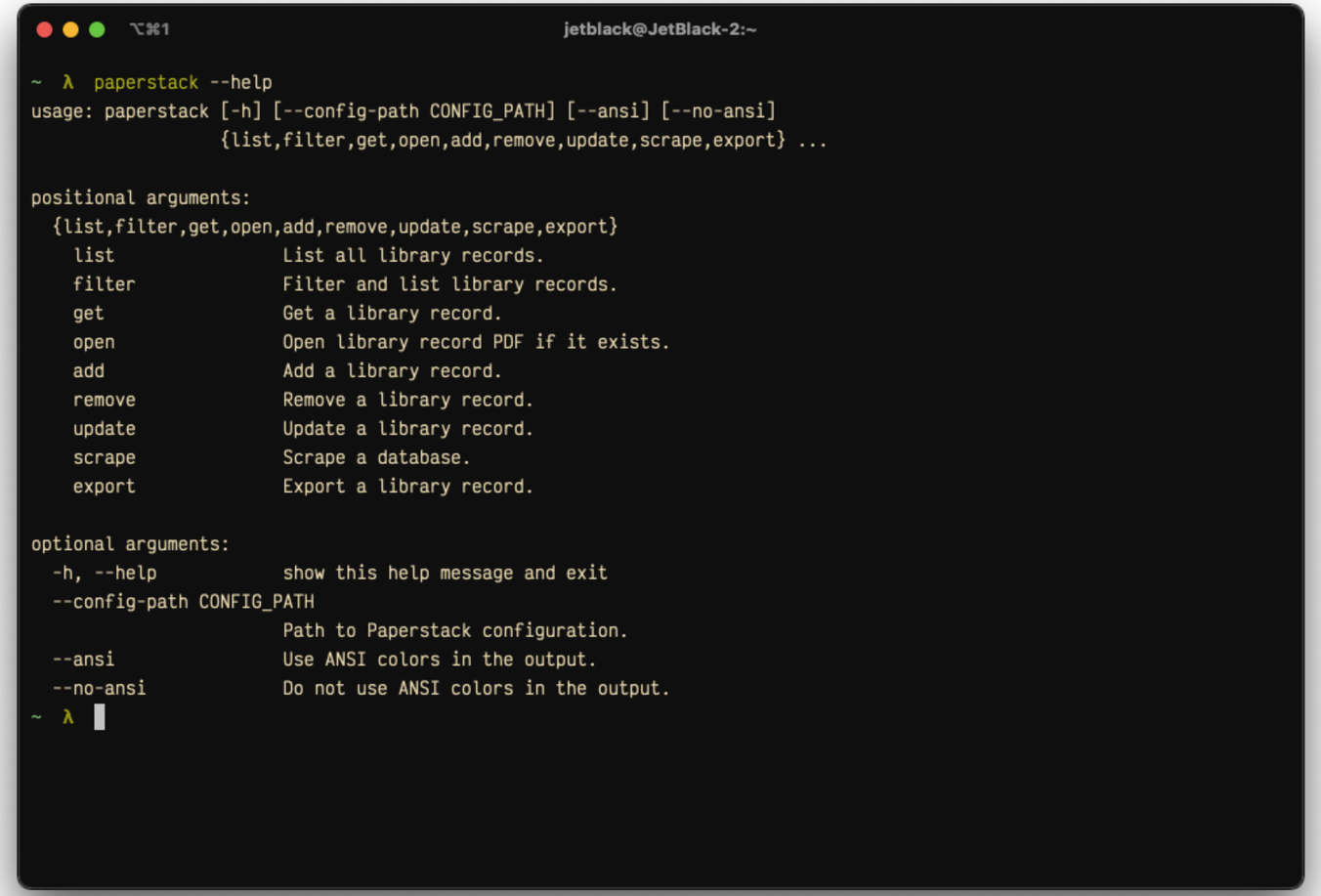
# Interface

Footer: Key map hints, messages, and input

# CLI

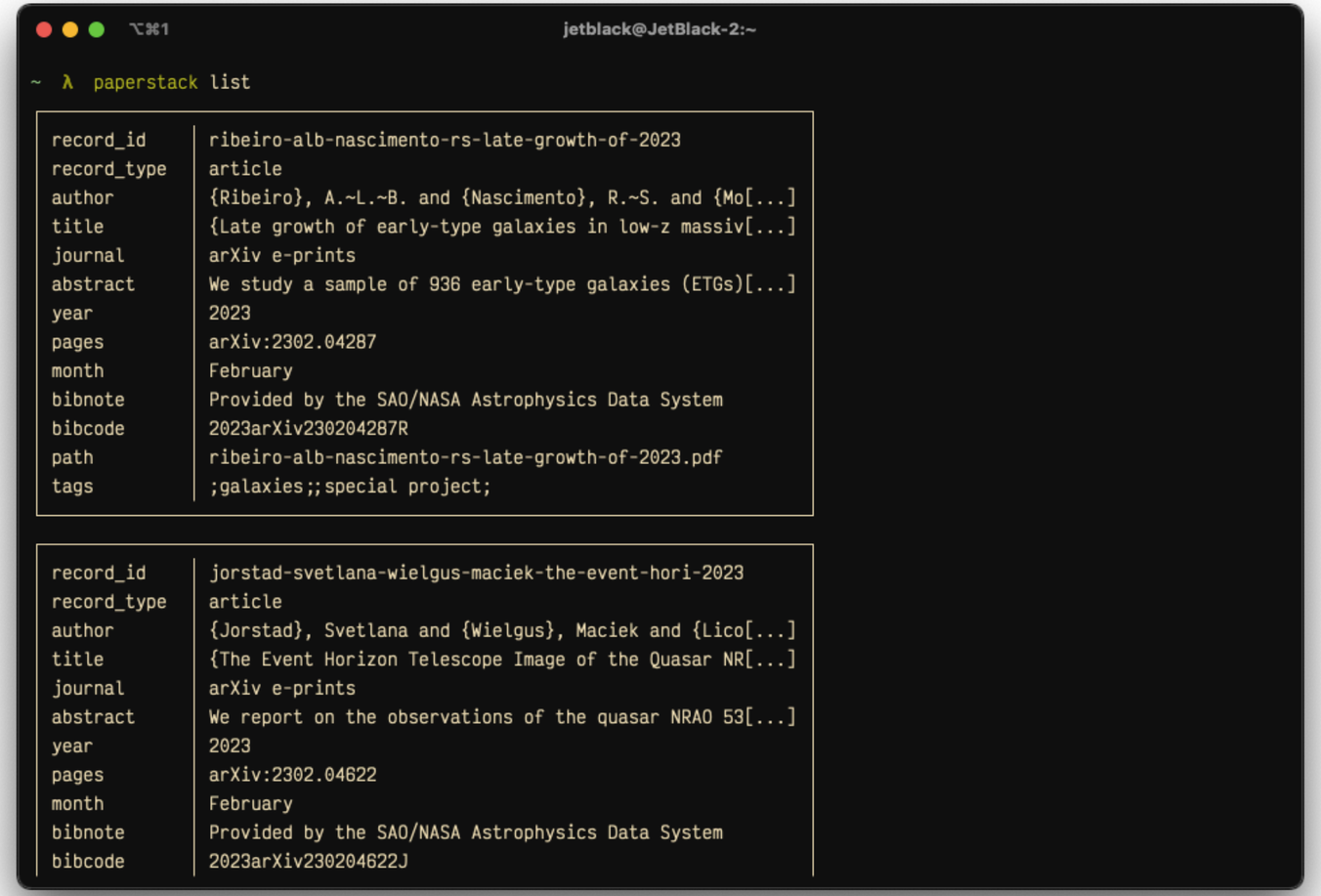
To explore the CLI commands, run:

```
$ paperstack --help
```



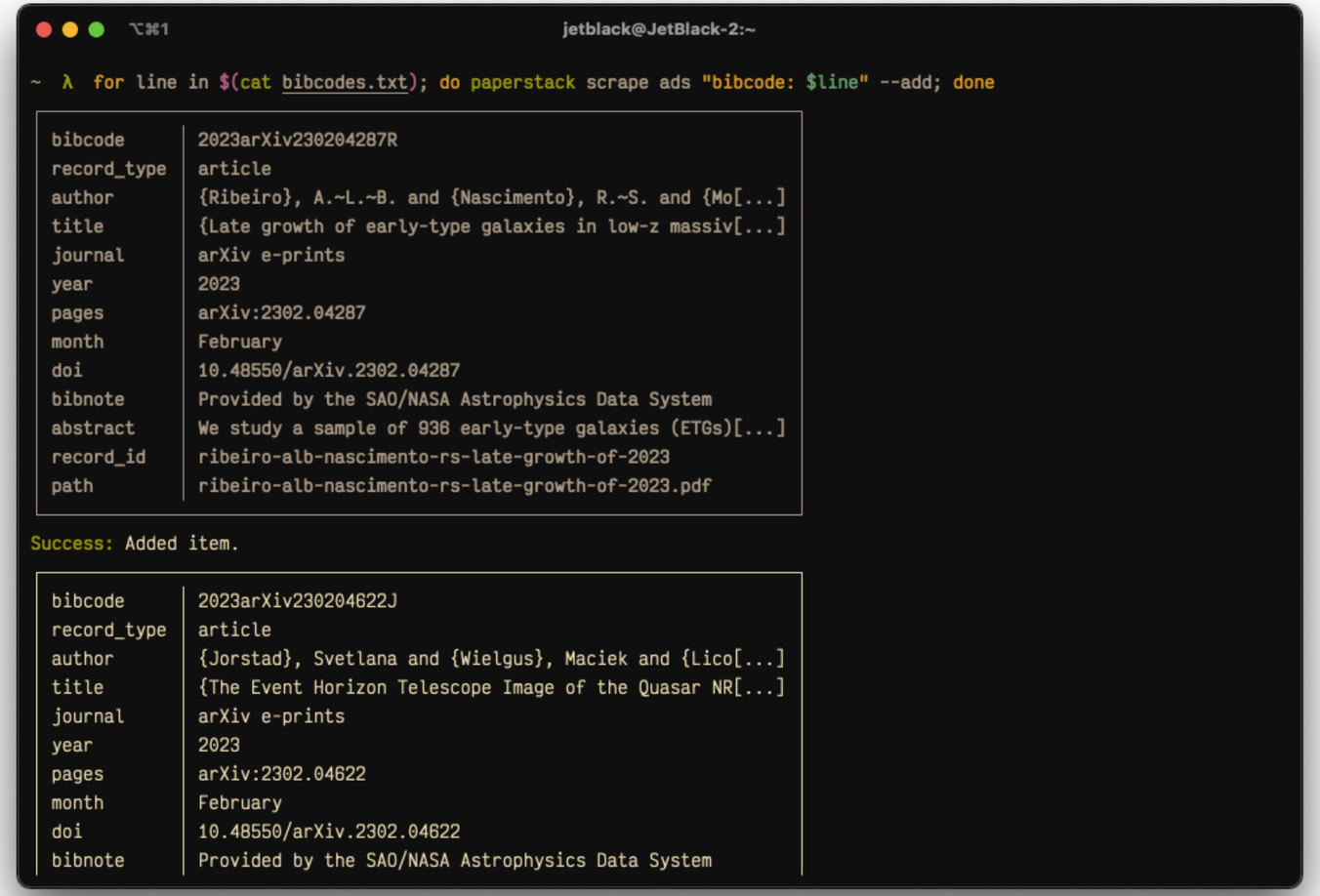
# CLI

```
$ paperstack list
```

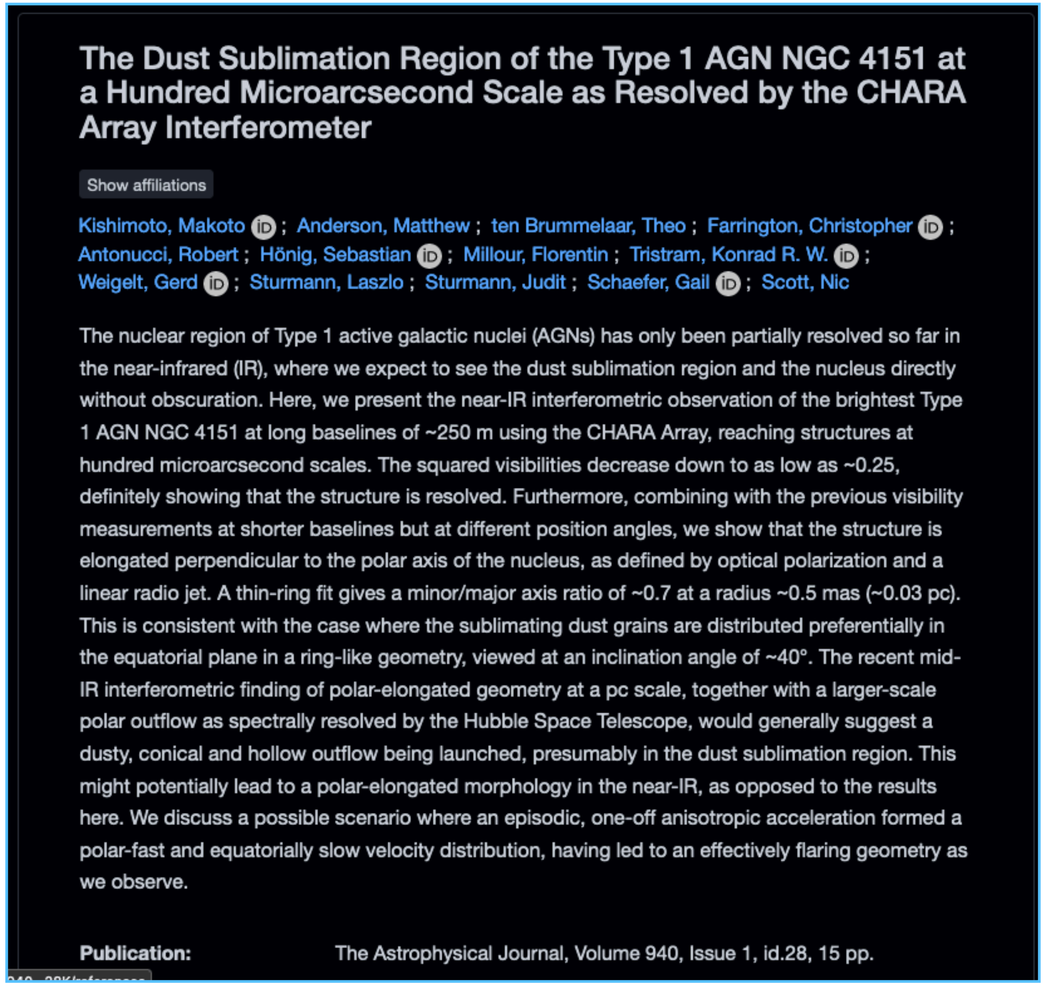


# CLI

```
for line in $(cat bibcodes.txt); do
    paperstack scrape ads "bibcode: $line" --add
done
```



# Demo



## The Dust Sublimation Region of the Type 1 AGN NGC 4151 at a Hundred Microarcsecond Scale as Resolved by the CHARA Array Interferometer

Show affiliations

Kishimoto, Makoto ; Anderson, Matthew ; ten Brummelaar, Theo ; Farrington, Christopher ; Antonucci, Robert ; Hönig, Sebastian ; Millour, Florentin ; Tristram, Konrad R. W. ; Weigelt, Gerd ; Sturmann, Laszlo ; Sturmann, Judit ; Schaefer, Gail ; Scott, Nic

The nuclear region of Type 1 active galactic nuclei (AGNs) has only been partially resolved so far in the near-infrared (IR), where we expect to see the dust sublimation region and the nucleus directly without obscuration. Here, we present the near-IR interferometric observation of the brightest Type 1 AGN NGC 4151 at long baselines of ~250 m using the CHARA Array, reaching structures at hundred microarcsecond scales. The squared visibilities decrease down to as low as ~0.25, definitely showing that the structure is resolved. Furthermore, combining with the previous visibility measurements at shorter baselines but at different position angles, we show that the structure is elongated perpendicular to the polar axis of the nucleus, as defined by optical polarization and a linear radio jet. A thin-ring fit gives a minor/major axis ratio of ~0.7 at a radius ~0.5 mas (~0.03 pc). This is consistent with the case where the sublimating dust grains are distributed preferentially in the equatorial plane in a ring-like geometry, viewed at an inclination angle of ~40°. The recent mid-IR interferometric finding of polar-elongated geometry at a pc scale, together with a larger-scale polar outflow as spectrally resolved by the Hubble Space Telescope, would generally suggest a dusty, conical and hollow outflow being launched, presumably in the dust sublimation region. This might potentially lead to a polar-elongated morphology in the near-IR, as opposed to the results here. We discuss a possible scenario where an episodic, one-off anisotropic acceleration formed a polar-fast and equatorially slow velocity distribution, having led to an effectively flaring geometry as we observe.

**Publication:** The Astrophysical Journal, Volume 940, Issue 1, id.28, 15 pp.

# Behind the Scenes

- Written in Python, using Urwid for interfacing
  - Escape codes and unicode (widespread support)
- SQLite database with exposed PDFs in the same directory
- Emphasis on modularity (record types and databases)
- BibTeX, XML, and PDF parsing; will use Beautiful Soup
- BibTeX for communication
- Will use JSON for extension support

# Installation

- Available on PyPI
  - `pip install paperstack`
  - `python3 -m pip install paperstack`
- Download and build from source
  - https://github.com/williamroque/Paperstack
  - `python3 setup.py install`

# Contributing

- All contributions welcome
- Feedback
  - GitHub Issues and Pull Requests are preferred
  - Email/Discord equally appreciated
- Areas of development
  - Improve docs
  - New databases/record types
  - New export formats (particularly MLA, APA, etc.)
  - Platform support

# Pitfalls

- Windows support
- Technical overhead
- Terminal vs. GUI

# Request