BCS introduction

Getting access to full text astronomical articles.

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1. BCS

Bibliographic **C**enter **S**upervisor *(CDS internal service)*

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1. Get complete articles from astronomical journals
   - download articles *(ideally in XML)*
   - convert them into an internal XML format: *XCDS*

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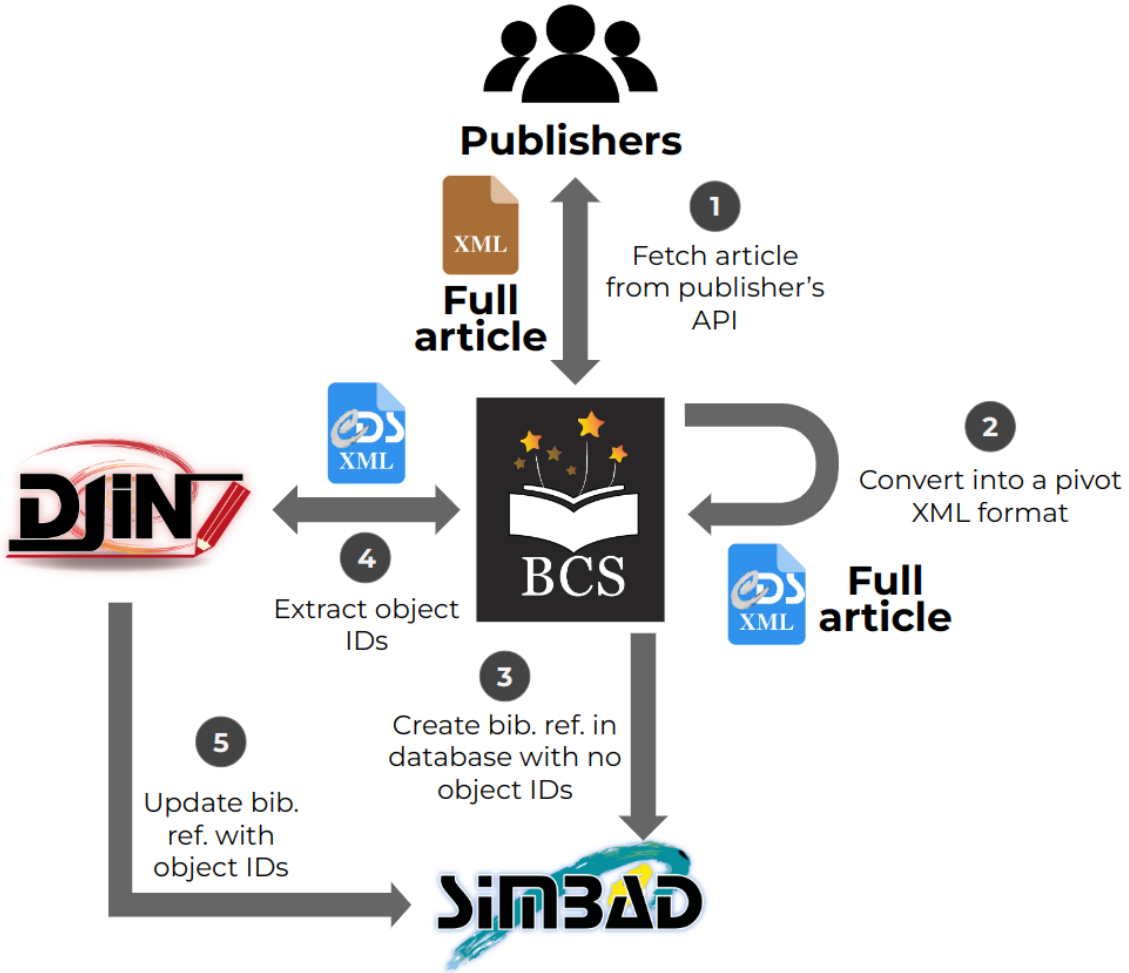
2. Give access to:
   - articles description
   - full text articles
   - tables *(mainly, MRT)*

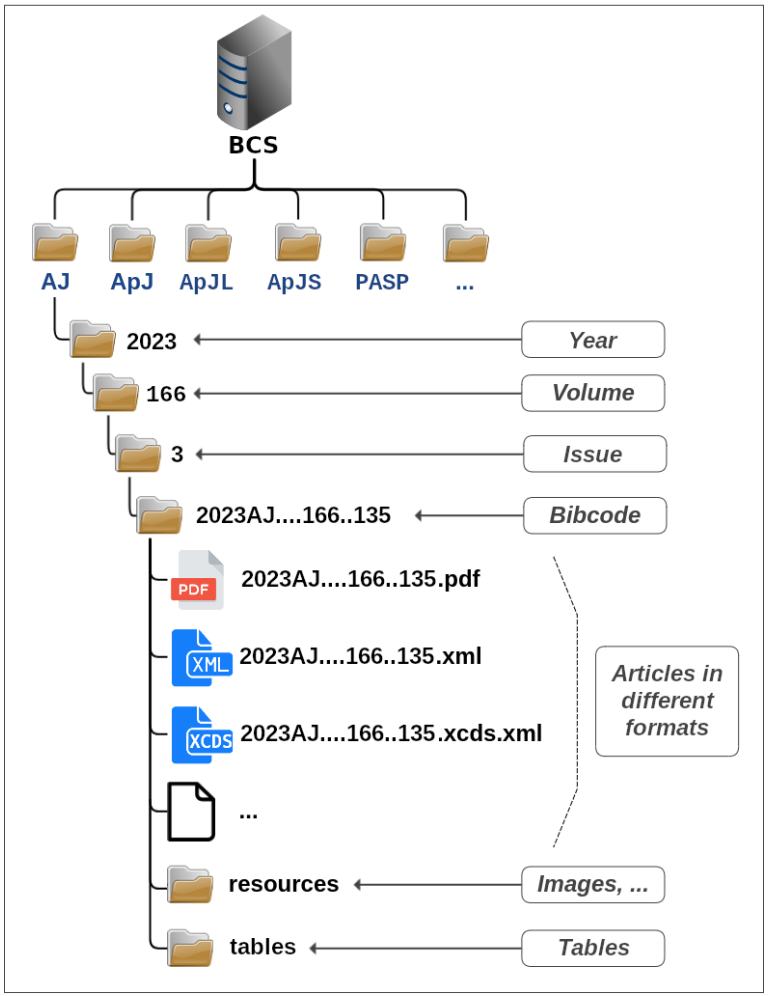
2. How does it work?



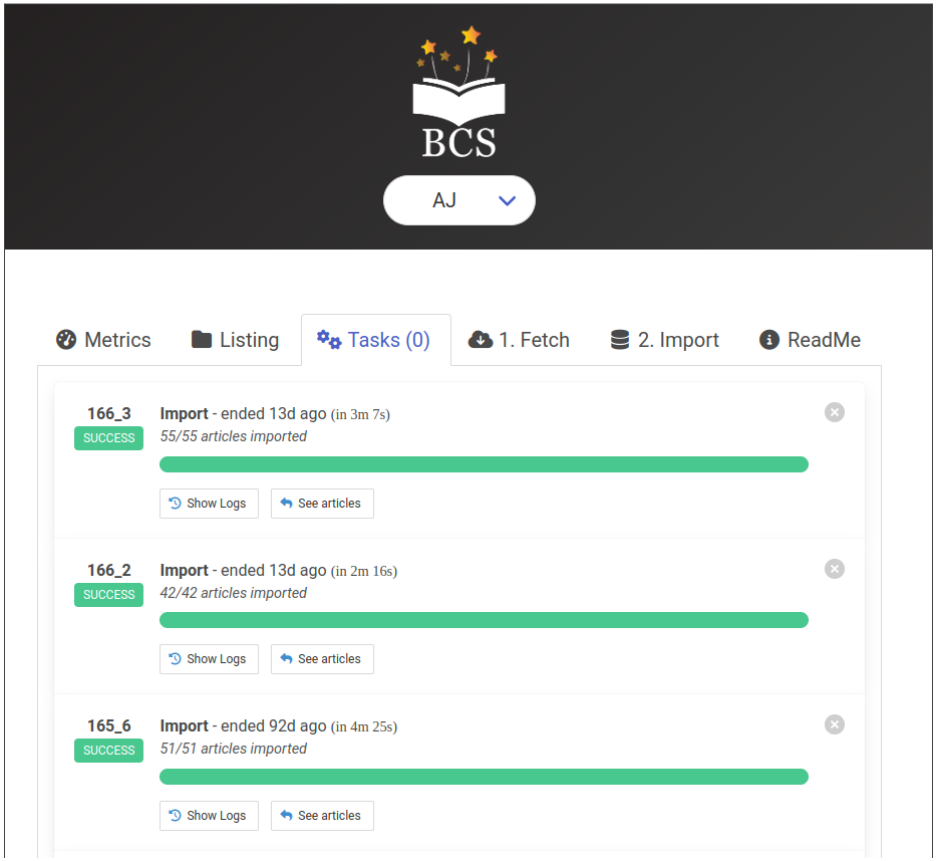
(cf LISA IX: Poster, Video, Article)

3. In practice

Article organization

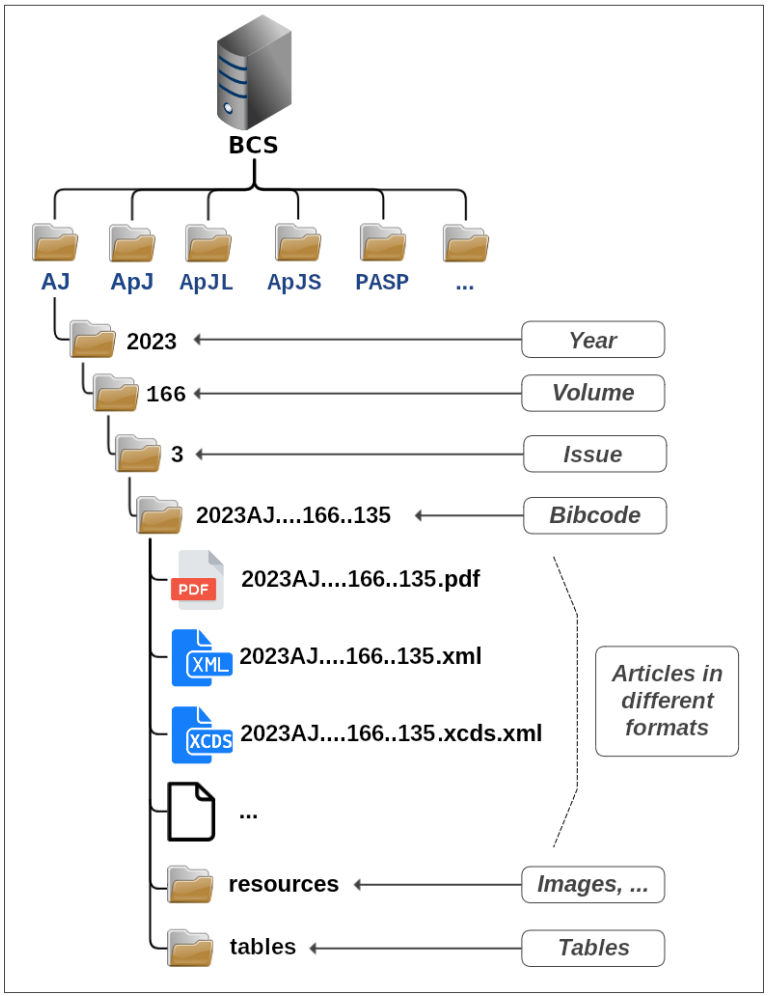


Ingestion management



3. In practice

Article organization



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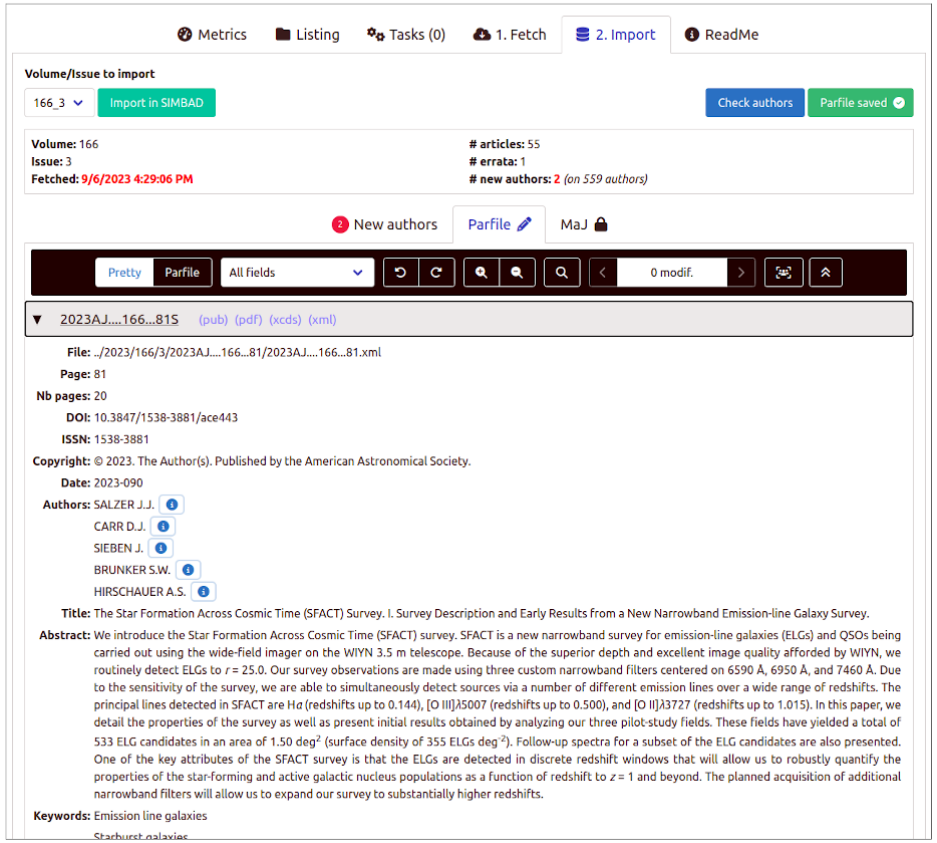

4. XCDS Version

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        <lastname>Balmer</lastname>
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5. HTML Rendering

2023AJ....166..135B AJ, volume 166, article 135, pages 1-4 published on the 01th of September 2023 by The American Astronomical Society, doi:10.3847/1538-3881/aced06

ERRATUM for doi:10.3847/1538-3881/ac73f4

Erratum: "Improved Orbital Constraints and Hα Photometric Monitoring of the Directly Imaged Protoplanet Analog HD 142527 B" (2022, AJ, 164, 1)

Balmer William O.[1,2], **Follette** Katherine B.[3], **Close** Laird M.[4], **Males** Jared R.[4], **De Rosa** Robert J.[5], **Adams Redai** Jéa I.[6], **Watson** Alex[3], **Weinberger** Alycia J.[7], **Morzinski** Katie M.[4], **Morales** Julio[8], ▶ ... (2 more authors)

▶ Affiliations...

Keywords:

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This erratum corrects two errors in the published article (Balmer et al. 2022). First, we implement two corrections to our published photometry. We improved our data reduction pipeline for photometric extraction and calculation of the Hα luminosity of the companion, both of which now follow the procedure described in detail in Follette et al. (2023). The updated photometric calibration and BKA model fitting results in astrometry that is identical to that reported in Balmer et al. (2022) to within uncertainties, so we do not repeat the orbital analysis here. We do, however make a small correction that arose from a numerical error in the calculation of the mutual inclination angle between the binary orbit and the inner and outer disk planes.

Neither correction results in a change to the main conclusion of the paper, namely the orbital solution for HD 142527 B. The evidence for a near perpendicular orientation for the binary relative to both disk planes remains strong. The updated photometry, which manifests primarily in an increase in photometric uncertainty does, however, cast into doubt the tentative claim made in the original article of photometric (and therefore accretion rate) variability in the excess Hα emission of HD 142527 B.

1. Updated Photometry

In Balmer et al. (2022), we normalized the input point-spread function (PSF) when conducting PSF forward modeling, but did not also normalize the data cube that would be starlight subtracted. This resulted in a PSF model without a fixed contrast relative to the star, a result of temporal variability in the PSF. In Follette et al. (2023) this normalization was implemented, and here we present corrected photometry for HD 142527 B.

Additionally, in the original article we used the formula,

$$L_{\mathrm{H}\alpha} = 4\pi d^2 z \Delta\lambda \times 10^{(R\mathrm{mag}_* + \Delta R)/-2.5}, \quad (1)$$

6. Technical requirements 1/2

- **Currently:**
  - the BCS daily fetches from an FTP server an archive containing all articles updated the day before for all journals
- **Problems:**
  - Issues sometimes incomplete *(though they are marked as complete on the website)*
  - No easy access to old articles
    - Need to keep all updated articles on our server
    - Ask IOP for missing/old articles
- **Ideal solution:**
  - a Web service/API to ask for specific articles, issues and volumes *(as the STACKS did in the past)*

6. Technical requirements 2/2

- **Additional problem:**
  - *Errors in author names* (e.g. switched firstname and lastname, part of the firstname inside the lastname)

```
author    | JANARDHAN P.
lastname  | P.
firstname | Janardhan
orcid     | 0000-0003-2504-2576
```

  - *Wrong ORCID* (i.e. not the one of the author)

```
orcid   | 0000-0002-0786-7307
authors | BARRO G.,KELLY P.L.,LU L.-Z.,
        | SCHWARZ G.J.,WILLIAMS T.G.,WU H.
```

7. Good points

- Usage of a standard XML schema (i.e. JATS) to format articles in XML
- Good communication with the IOP team
  - quick answers in case of problem (e.g. missing articles)
  - always get notifications in case of change on their side