

## PUNCHLunch –

the online lunch seminar of the PUNCH4NFDI Consortium

Every third Thursday, 12:30-13:30 hrs: keynote and discussion



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Thursday, 18 December 2025, 12:30 hrs:

**Prof. Dr. Baptiste Cecconi (Astronomer at LIRA, Observatoire de Paris)**

### OPAL project and ontologies in astronomy

[ontoportal-astro.eu](https://ontoportal-astro.eu)

#### Abstract:

The OPAL (Ontology Portal for Astronomy Linked-data) project aims at fostering semantic interoperability in all fields of astronomy (including heliophysics, planetary sciences, astrophysics, astro-particles, numerical modeling, etc.). The astronomy communities are widely recognised as mature communities for their open science practices. However, while their data ecosystems are rather advanced and permit efficient data interoperability, there are still gaps between these ecosystems. Semantic artefacts (SAs) — e.g., ontologies, thesauri, vocabularies or metadata schemas — are a means to bridge that gap as they allow to semantically describe the data and map the underlying concepts. The increasing use of SAs in astronomy presents challenges in description, selection, evaluation, trust, and mappings. The landscape remains fragmented, with SAs scattered across various registries in diverse formats and often with overlapping scopes. Enhancing data semantic interoperability requires common platforms to catalog, align, and facilitate the sharing of FAIR (Findable, Accessible, Interoperable and Reusable) SAs. We show that the [OntoPortal-Astro](https://ontoportal-astro.eu) catalogue already resulted in improved vocabulary and ontology management in the communities, and is now paving the way for better interdisciplinary data sharing, discovery and reuse.



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#### Connection details:

**ZOOM Meeting “PUNCHLunch seminar”:** <https://indico.desy.de/event/51771/>

**Webinar ID: 919 1665 4877, passcode: 481572**

**Next event: Julia, by Dr. Oliver Schulz, 15 January 2026**

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#### Connect to PUNCH4NFDI:

Mastodon: <https://nfdi.social@punch4nfdi>

Mail: [punch4nfdi@desy.de](mailto:punch4nfdi@desy.de)

Web: [www.punch4nfdi.de](http://www.punch4nfdi.de)