



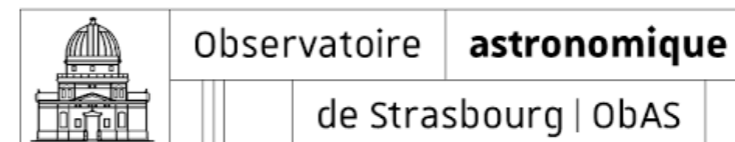
Standing Committee for Science Priorities (CSP) status

Interop meeting 10-12 November 2023
Ada Nebot for the CSP

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CENTRE DE DONNÉES
ASTRONOMIQUES DE STRASBOURG



□ The CSP of the IVOA

Who is the CSP?

- Members of the science community and active astronomy projects.

Members

- Members: Mark Allen, Christophe Arviset, Chenzhou Cui, Raffaele D'Abrusco, Vandana Desai, Gregory Dubois-Felsmann, Janet Evans, Pepi Fabbiano, Mark Lacy, Marco Molinaro, Kai Lars Polsterer, Enrique Solano
- New members: Rachana Bhatawdekar and Rosie Bolton
- Chairs: Ada Nebot (chair) & Francesca Civano (vice-chair)

<http://ivoa.net/twiki/bin/view/IVOA/IvoaSciencePriorities>

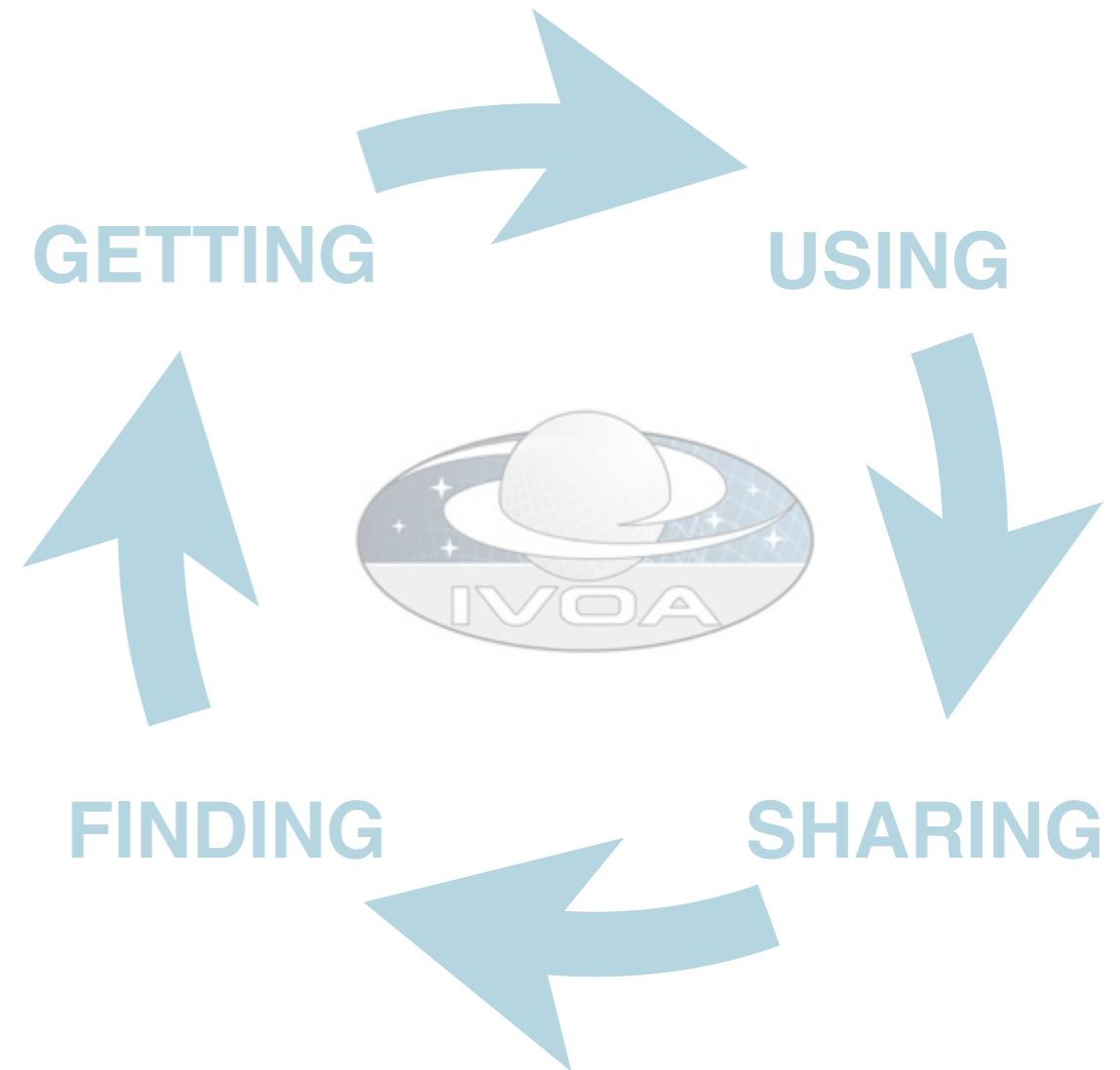
□ Goal of the CSP

What is the goal of the CSP?

- Sustain the scientific impact of the VO as an interoperable ecosystem to support science
- Ensure continuous engagement of the international astronomical community

Astronomy community

- The astronomy community comprises missions that are active or under development, operating observatories, astronomical archives, and teams of astronomers performing research and disseminating data products to the community.



□ Activities of the CSP - I

Recommend scientific priorities and scientific requirements

- Driven by scientific use cases that are developed in cooperation with the scientific community.
- Will drive the development of new protocols which will be developed by the IVOA and coordinated by the TCG



➡ Identify and transmit the needs of the community

➡ Report back & forth

□ Activities of the CSP - II

Insure community engagement

- Encourages engagement, adoption and feedback of implementations of the international astronomical community
- Support VO members in developing tutorials, technical and scientific workshops and scientific training materials.

□ CSP important considerations

- Identify the current main science cases in the community
- Engage with large and small projects
- Ensure IVOA is building standards, tools and services responding to these science cases
- Ensure right balance for these standards
 - Not too generic, not too specific
 - Implementable standards, while not too simplistic
 - Need for new standards, or updating existing standards
 - Addressing new data types, new areas in astronomy

□ Accomplishments over last semester

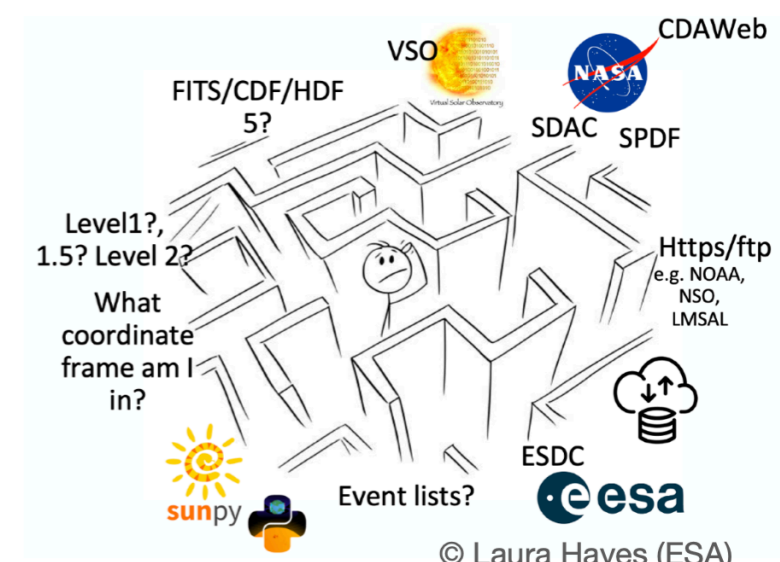
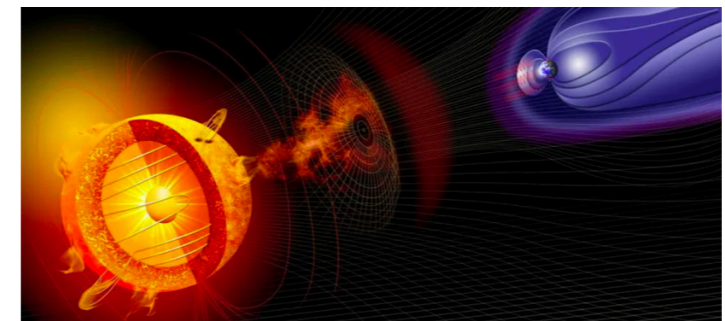
Heliophysics and the IVOA

IHDEA (International Heliophysics Data Environment Alliance)

- Oct 2023: DASH+IHDEA meeting
- Discussed about tighter links with the IVOA. Identified topics:
 - Resource discovery:
 - How to reuse/inspire from IVOA recommendations to improve the IHDEA/SPASE registry?
 - Use of EPNTAP as a resource discovery interface?
 - Semantics:
 - Use the IVOA Semantics vocabularies as a common source of terms? (e.g.: reference frames)
 - Time Domain:
 - Improve VOEvent for storing heliophysics event?
 - Integrate HAPI* in IVOA framework? See TDIG talk
 - Access:
 - Push for more adoption of TAP



<https://dash.heliophysics.net/> <https://ihdea.net/>



HAPI* = Heliophysics API (simple API to access time-series). <https://github.com/hapi-server>

□ Accomplishments over last semester

High Energy and the IVOA

- Several meetings to discuss about common approaches to discover and present data
- Representatives of different missions from X-ray, gamma-ray and neutrino
- Notes <https://wiki.ivoa.net/twiki/bin/view/IVOA/HEGroup>
- Next steps:
 - How do things fold into IVOA requirements?
 - Continue to meet to discuss IVOA protocols and how High Energy data fits in
 - Consider new Data models and/or extension to existing or developing standards
 - Consider formalizing group by spring Interop to HEIG IG
- All are welcome - send email to "heig@ivoa.net" to get on the mailing list !! And see DM session

□ Accomplishments over last semester

IVOA engagement with changes needed to data access and metadata standards

- Driven by cloud and science platform initiatives.
 - ➔ how to update SIA to return cloud and/or on-prem pointers
 - ➔ how to use cloud-friendly Parquet format for large catalogs in an IVOA-friendly way
- Driven by new missions providing >> spectra
 - ➔ Updates to extend the spectral data model to cope with use cases that involve hundreds of millions of spectra expected from Euclid and SPHEREx.
- Driven by Radio data
 - ➔ Updates of Obscore extensions. See Radio session
- Roadmap for Cone Search. See DAL session

□ Accomplishments over last semester

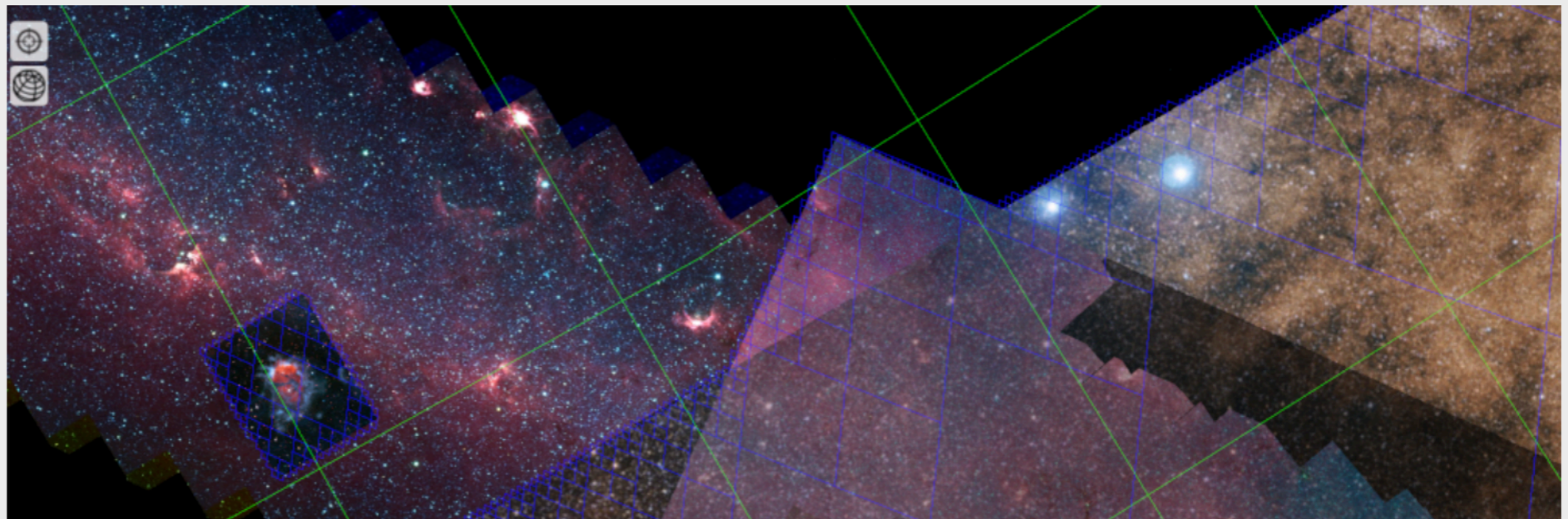
- **And many more...**
 - Active participation to conferences, workshops and VO schools!



Special Session SS4

12 July 2023

Science with the Virtual Observatory: status, success cases, the future





Can only be achieved with community engagement

We need you!

Thanks!!

Looking forward to a productive meeting!