

# Activité dans DAL

*Journées ASOV - Mai 2025*

*Grégory Mantelet (CDS)*



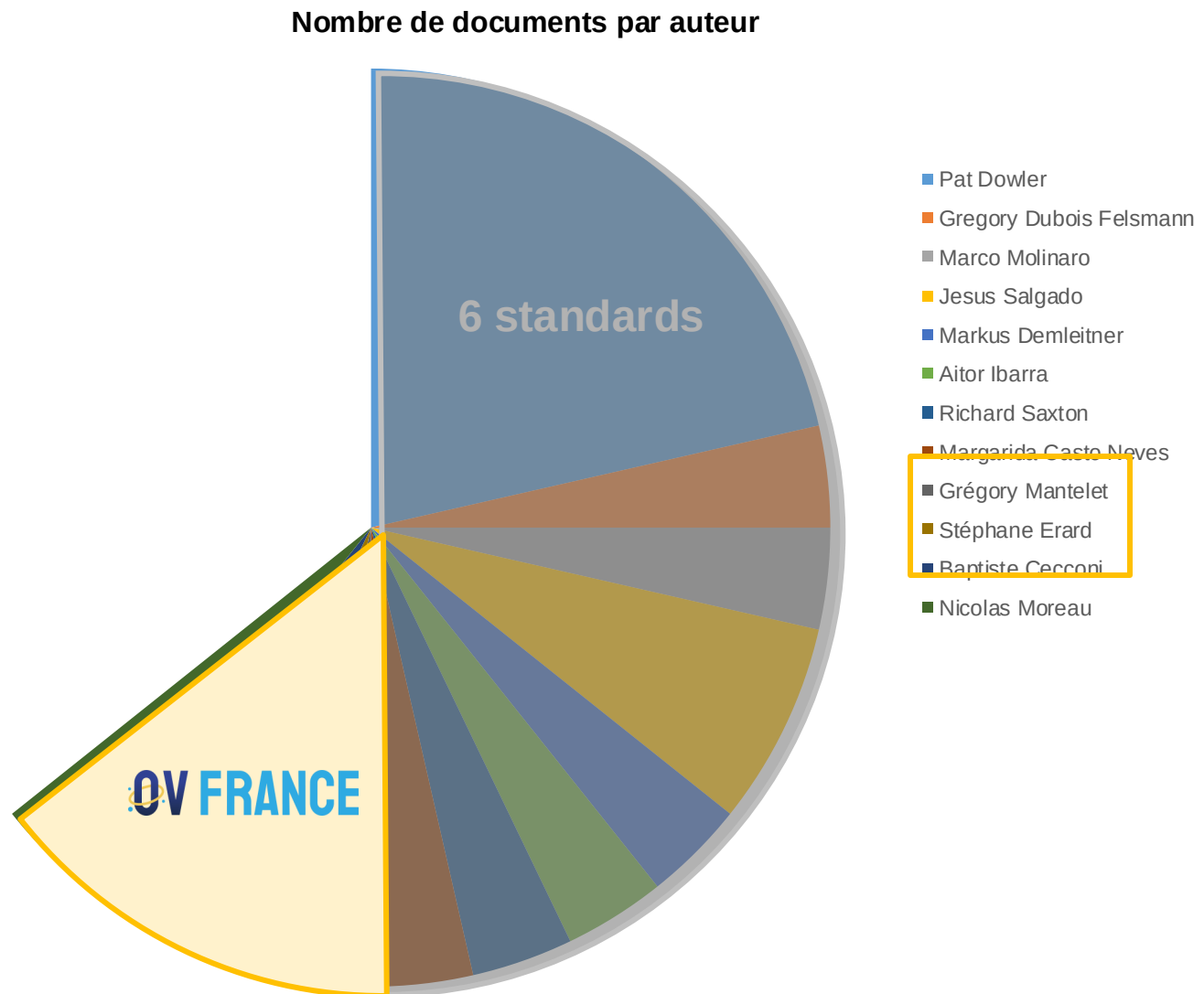
# Data Access Layer WG

**Chair:** Grégory Mantelet

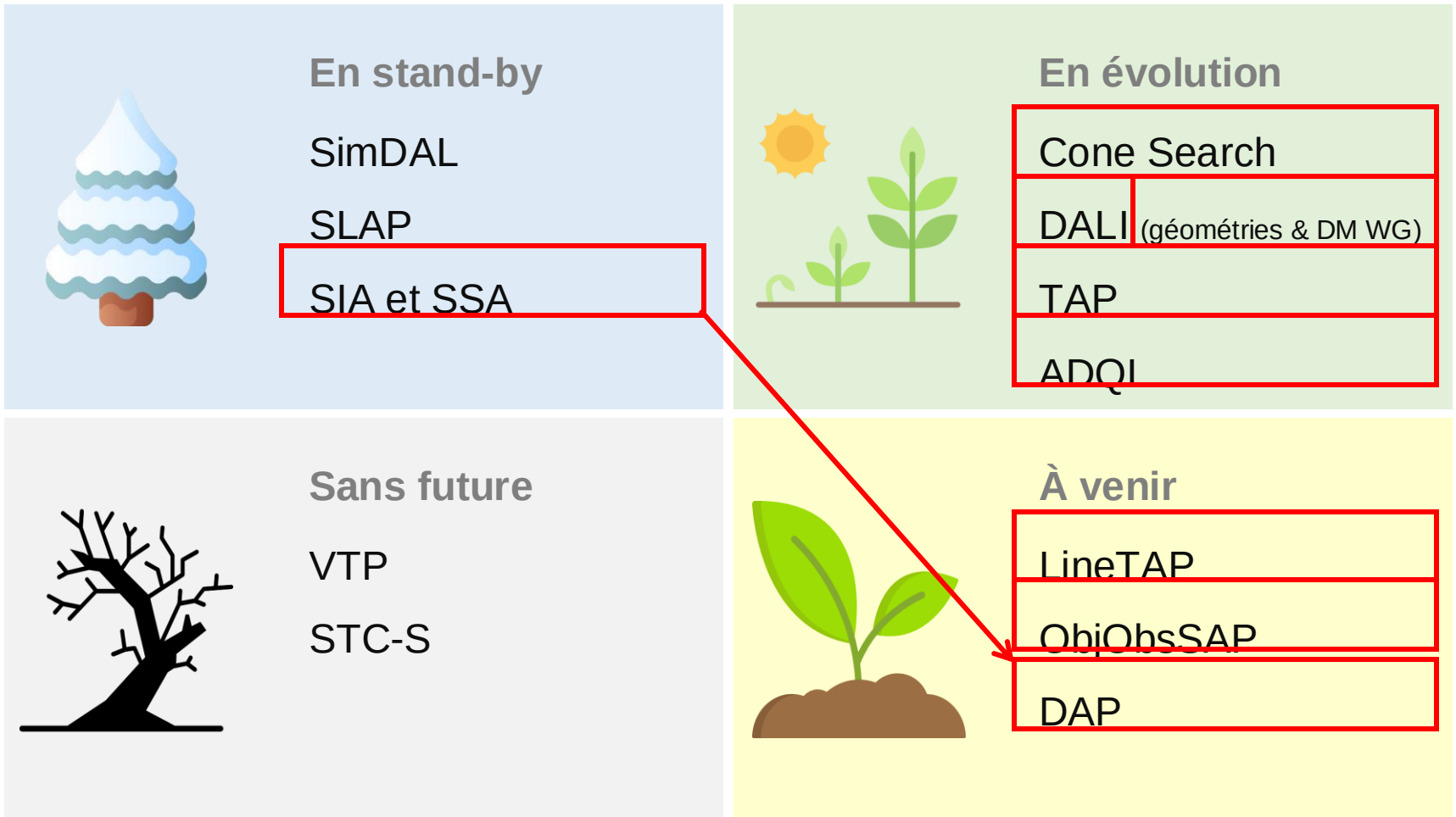
**Vice-chair:** Joshua Fraustro



# Diminution du nombre d'auteurs



# Paysage en évolution





# Comment contribuer ?



[DAL mailing list](#)

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[Grégory Mantelet](#) (*chair*)

[Joshua Fraustro](#) (*v-chair*)



[Twiki IvoaDAL](#)

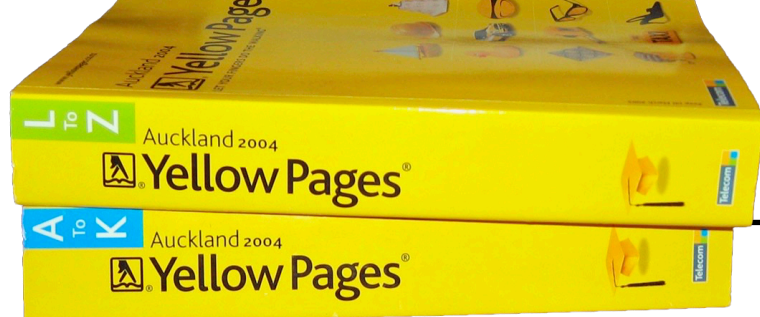


[DAL Channel](#)



[IVOA documents](#)





# Registry Working Group - ASOV 2025-03-24 Paris

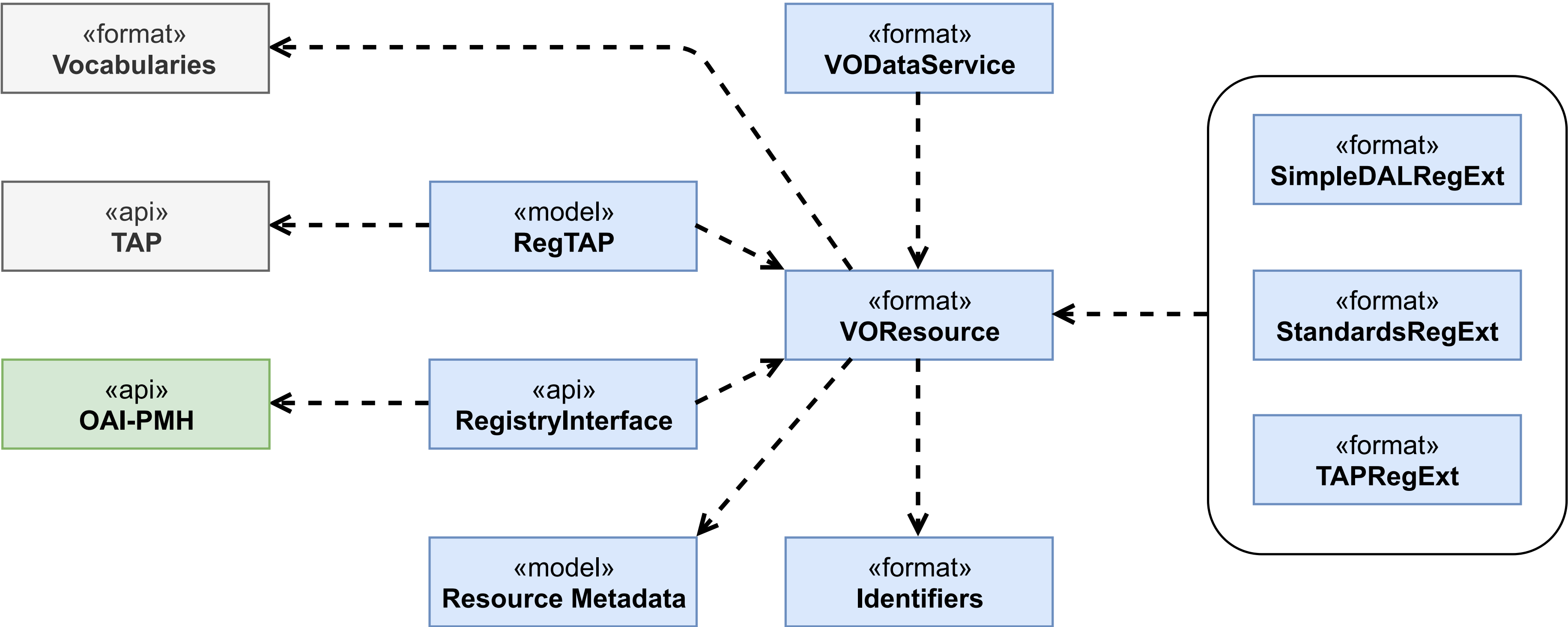


Chairs: Renaud Savalle (PADC/Obs Paris) and Tess Jaffe (NASA GSFC)

Slack: [#registry](https://ivoa.slack.com)

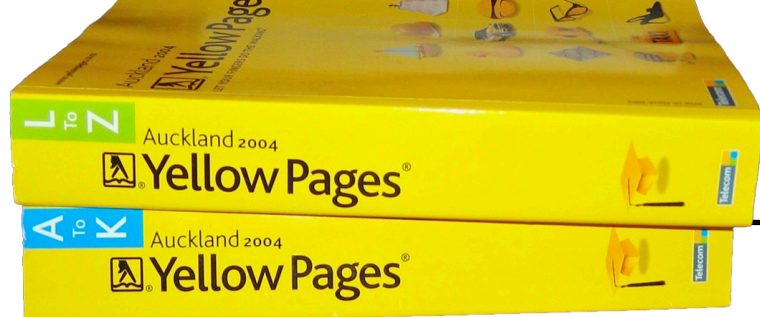
Mailing list: [registry@ivoa.net](mailto:registry@ivoa.net)

## 2. The Registry Standards



<https://github.com/ivoa-std/architecture>





# Registry Working Group - ASOV 2025-03-24 Paris



Chairs: Renaud Savalle (PADC/Obs Paris) and Tess Jaffe (NASA GSFC)

**Slack:** [#registry](https://ivoa.slack.com)

**Mailing list:** [registry@ivoa.net](mailto:registry@ivoa.net)

## 3. Highlights from Recent Work

### ➡ New Standards

- **VOResource-1.2** (DOIs, UAT, SPDX for licenses) RFC ended, vote OK, in Exec approval
- **StandardsRegExt-1.1** in RFC <https://wiki.ivoa.net/twiki/bin/view/IVOA/StandardsRegExt11RFC>

=> A Registry extension describing IVOA documents, main usage:

<capability standardID="**ivo://ivoa.net/std/hips#hipslist-1.0**">

Changes in v1.1: new [p]en ([Proposed] Endorsed Note) doc types; description of process for adding new keys

(see slides [https://wiki.ivoa.net/internal/IVOA/InterOpMay2023Registry/InterOpMay2023Reg\\_StandardsRegExt-1.1.pdf](https://wiki.ivoa.net/internal/IVOA/InterOpMay2023Registry/InterOpMay2023Reg_StandardsRegExt-1.1.pdf))

### ➡ New collaborative dashboard for Registry issues follow-up

- <https://github.com/ivoa/registry-housekeeping/projects>
- Registry Spring Cleaning session planned for June 2025 InterOp

### ➡ Progress in pyvo.registry API

- New UAT constraint <https://github.com/astropy/pyvo/pull/649>

```
resources = registry.search(  
    registry.UAT("cepheid-variable-stars", expand_down=3))
```

### ➡ Projects

- Data providers workshop on Registry best practices  
(combined with Astro-CC Data Provider Event in Heidelberg in 2026?)





# IVOA Semantics status

Baptiste Cecconi (Obs Paris) - chair  
Sébastien Derrière (CDS) - vice-chair



# IVOA Semantics - Roadmap

## UCDlist 1.6 EN:

update related tools  
start work on UCDlist 1.7

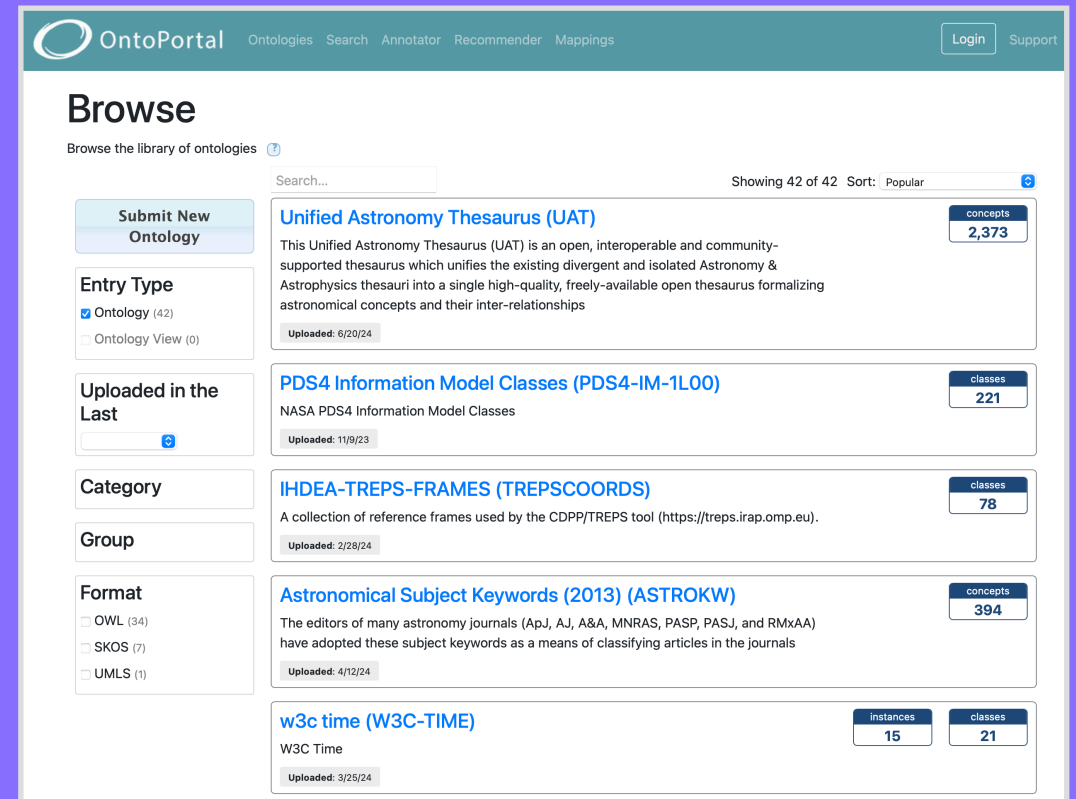
## Work on vocabularies:

URLs and versioning of vocabularies  
better management : source as rdf?  
Vocabularies API

## OPAL : Ontology Portal for Astronomy Linked-data (OSCARS grant):

Based on ontoportal.org  
Started: January 1st 2025, for 2 years

<http://ontoportal-astro.eu>



The screenshot shows the OntoPortal website interface. The header includes the OntoPortal logo and navigation links: Ontologies, Search, Annotator, Recommender, Mappings, Login, and Support. The main section is titled "Browse" and contains a search bar and a list of ontologies. The list includes:

- Unified Astronomy Thesaurus (UAT)**: This Unified Astronomy Thesaurus (UAT) is an open, interoperable and community-supported thesaurus which unifies the existing divergent and isolated Astronomy & Astrophysics thesauri into a single high-quality, freely-available open thesaurus formalizing astronomical concepts and their inter-relationships. **concepts: 2,373**. Uploaded: 6/20/24.
- PDS4 Information Model Classes (PDS4-IM-1L00)**: NASA PDS4 Information Model Classes. **classes: 221**. Uploaded: 11/9/23.
- IHDEA-TREPS-FRAMES (TREPSCOORDS)**: A collection of reference frames used by the CDPPTREPS tool (<https://treps.irap.omp.eu>). **classes: 78**. Uploaded: 2/28/24.
- Astronomical Subject Keywords (2013) (ASTROKW)**: The editors of many astronomy journals (ApJ, AJ, A&A, MNRAS, PASP, PASJ, and RMxAA) have adopted these subject keywords as a means of classifying articles in the journals. **concepts: 394**. Uploaded: 4/12/24.
- w3c time (W3C-TIME)**: W3C Time. **instances: 15**, **classes: 21**. Uploaded: 3/25/24.

On the left side of the interface, there are filters for "Entry Type" (Ontology (42), Ontology View (0)), "Uploaded in the Last" (3), "Category", "Group", and "Format" (OWL (34), SKOS (7), UMLS (1)).

# Data Curation & Preservation

interest group



## HOW'S YOUR DATA?

BEST PRACTICES FOR DATA PUBLICATION IN  
THE ASTRONOMICAL LITERATURE



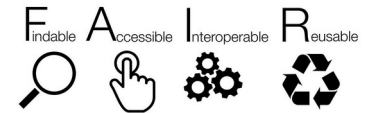
Chair, vice chair: G.Landais, G. Muench

### ACTIVITIES

- Share knowledge and report the needs to the IVOA community
- Discuss and encourage Best Practices

### Make the bridge with OPEN SCIENCES

- Needs trustworthy Data Centers which have to distribute FAIR Data
- Open Access impacts habits with an increasing interest on Data **Provenance** and Data **Citation**
- Check the relevance of our datasets in **Open Sciences portals**



# Data Curation & Preservation

interest group



## Data Origin dans les VOTable

“light Provenance in VOTable to improve Data understanding, reproducibility and citation”  
<https://www.ivoa.net/documents/DataOrigin/>

Information disponible via Aladin, TOPcat.  
Pull request en cours pour astropy

## Bibliographic Interfaces in the Virtual Observatory

Lier les datasets aux articles publiés  
<https://www.ivoa.net/documents/Notes/BibVO/>  
(M.Demleitner, A.Accomazzi)

## Guide de bonnes pratiques pour les DOI

Travail en cours (A. Muench, G.Landais et al.)



Mailing list DCP: <http://mail.ivoa.net/mailman/listinfo/datacp>

Chair: [gilles.landais@unistra.fr](mailto:gilles.landais@unistra.fr)  
Vice-chair: August Muench

Twiki: <https://wiki.ivoa.net/twiki/bin/view/IVOA/IvoaDCP>

IVOA Note

### International Virtual Observatory Alliance

IVOA Documents



Data Origin in the VO  
Version 1.1

IVOA Note 26 January 2024

Interest/Working Group:

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

Author(s):

Gilles Landais, August Muench, Markus Demleitner, Renaud Savalle

IVOA Note

### International Virtual Observatory Alliance

IVOA Documents



Bibliographic Interfaces in the Virtual Observatory  
Version 1.0

IVOA Note 14 February 2024

Interest/Working Group:

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

Author(s):

Demleitner, M., Accomazzi, A.



# Time Domain Interest Group

Pierre Fernique (vice-chair)  
qui assure l'interim...



OV France - Mars 2025

**OV FRANCE**

# Les travaux actuels du TDIG

- VOEVENT actuel

- la version 2.1 - une version mineure - est dans sa phase finale avant la recommandation.
- Les questions soulevées dans la page RFC ont été discutées et les auteurs ont apporté les réponses souhaitées.
- Il ne reste plus qu'à attendre les votes du TCG afin que l'EXEC puisse promouvoir cette nouvelle version pour le prochain Interop.

- VOEvent futur

- Nous avons eu une réunion le 25 janvier, présidée par Baptiste Ceconni en attendant la désignation d'un nouveau président pour le TDIG - merci à lui.
- Cette réunion faisait suite à la réunion splinter qui s'est tenue lors de l'Interop de Malte.
- L'objectif était d'initier les discussions nécessaires à une version plus large de VOEvent, mieux intégrée dans le contexte actuel, notamment le télescope Rubin, Virgo/lirgo, probablement basée sur des protocoles de transport alternatifs plutôt que VOTP, et fournissant une méthode plus puissante pour décrire la couverture concernée.
- Les choses avancent donc plutôt bien, mais il manque un élément essentiel : un volontaire pour écrire cette nouvelle extension. Pour l'instant, personne ne s'est porté volontaire.

# Evolution de la description des couvertures

- Comment étendre le « target » de VOEvent ?
  - J'ai contacté deux personnes proposant des solutions similaires pour décrire efficacement les cartes de probabilité, à savoir FX Pineau du CDS, et Leo Singer du projet LIGO/Virgo.
  - Tous deux semblent prêts à présenter leurs idées lors d'un prochain Interop, ce qui pourrait nous permettre de tenter de converger vers une solution technique solide.
- Où et quand ?
  - Comme il s'agit d'extensions de MOC, il pourrait être judicieux d'organiser une session commune avec le WG Apps.
  - En revanche, je ne serai qu'en distanciel au prochain Interop. Donc soit Apps qui gère, soit on patiente pour l'Interop d'automne.

# High Energy Interest Group

B. Khélifi (APC, Paris)

With inputs from the CTAO data modelling group

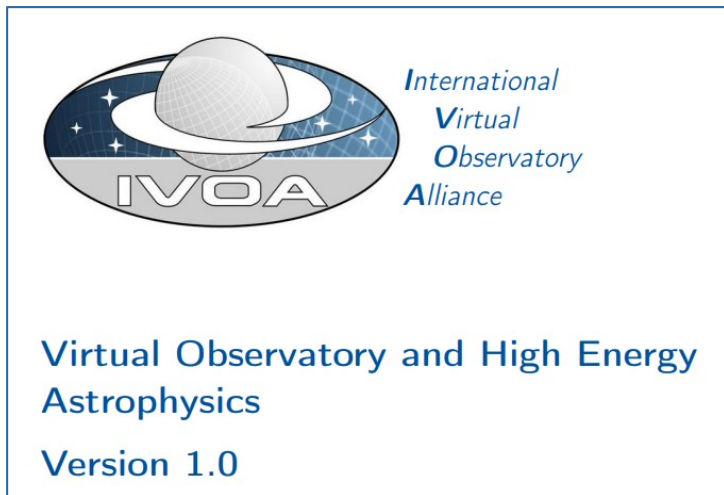
ASOV 2025 (Paris)



# The latest newly-born interest group

## Strong activities the last years on the high energy data models

- In ASOV, e.g. [M. Servillat, 2024](#)
- Internally by experiments (e.g. CTAO, KM3NeT)
- In the IVOA eco-system



## Aiming to create within IVOA the *High Energy Interest Group*

Supported by:

- some HE observatories (Chandra, XMM, CTAO, KM3NeT)
- Some groups and observatories (Strasbourg, Paris/Meudon, APC, CEA, CfA)

Multi-messenger IG (photons, neutrinos)

## Creation at the IVOA Interop meeting in Nov., 2024

- Chair: BK (APC)
- Co-chair: J. Evans (CfA)

<https://wiki.ivoa.net/twiki/bin/view/IVOA/HEGroup>

# 2025 activities

## Kick-off meeting (24/01/25)

- Organisation
- 2025 Roadmap
  - HEIG ObsCore extension
  - First, for the event list with their IRFs
  - Then, for the astrophysical products

## Thematic meeting on the radio extension of ObsCore (11/02/25)

- Compliance of this extension with our current view on the HEIG ObsCore

## Towards a proposal for HEIG ObsCore

- We aim to offer as soon as possible to the HE data publishers the ability to expose their data (event list and IRFs) on the VO
- Preparation of a proposal based on the work of Obs.Meudon, Obs.Strasbourg and CfA:

M. Servillat and I. Evans

PS: the VHE community is actively working on a new format, [VODE](#), aiming to be FAIR and VO-compliant

Latest data model: [13/03/2025](#)

# KD-IG @ 2024 November InterOp

- Joint session with GWS/DSP on Saturday, November 16, 2024  
14:00-15:30
- **Theme: AI in Astronomy and Impact on IVOA Standards**
- **Discussion:**
  - **Panel:** Andre Schaaff, Sebastien Trujillo, Giuseppe Riccio, John Abela, Chenzhou Cui
  - **Understanding AI Requirements** - data formats and structures, metadata elements
  - **Adapting Existing Standards** - support AI workflows, use cases
  - **Enabling Interoperability, Reusability and Data Quality for AI workflows**
- **Next Steps:**
  - Continue collaborate with GWS and other groups to work on supporting AI/ML/DM workflows in the context of VO
  - Look forward to working with a new vice-chair



Thanks to all the speakers and panelists  
mailing list: <http://mail.ivoa.net/mailman/listinfo/kdd>

# IVOA Data Model WG

2024B Roadmap



# Data Model WG Roadmap

<https://wiki.ivoa.net/twiki/bin/view/IVOA/2024BRoadmap#Data%20Model%20WG>

- **MANGO 1.0:** Model for ANnotating Generic Objects
  - DM group comments on Working Draft to Git issues
  - Resolve comments - update working draft and implementations
  - Move forward to RFC process.
- **CAOM 2.5** Integration
  - Documentation updates (LaTeX representation) - February
  - Hold focus meeting on integration plan - February
  - Review/resolve issues from working group review
  - Working on python implementation (at CADC)

- **ObsCore**/RadioExtension reconciliation
  - Port [ObsCore](#) -1.1 document to ivoatex
  - Schedule focus meeting with interest groups (DM, [RadIG](#), TDIG, HEIG)
  - Submit proposal of <attributes> to move into [ObsCore](#) proper
  - Continued discussion - how to discover services that include <domain> extension content
  - Open working draft for [ObsCore](#) -1.2 and update [RadioExtension](#) -1.0
- **VO-DML 1.1**: Updates to facilitate database and code generation threads
  - Deliver list of update candidates to DM mailing list for review
  - Create working draft document
  - Review internally, and move through RFC process
- **Cube 1.0**
  - Work with HEIG to define/implement use case workflow with event data
- **VOEvent 2.2**
  - Monitor VOEvent activities

# IVOA DM running meeting

- Monthly meetings
  - <https://wiki.ivoa.net/twiki/bin/view/IVOA/IvoaDMRunningMeetings>
- Next
  - Tuesday April 15 2025 @ 14:00 UTC
  - Tuesday May 20 2025 @ 14:00 UTC 15 avril