IVOA Exec Meeting: TM116

09 November 2023, 17:30-19:00 Mountain Standard Time
(12:30-2:00 UTC Friday, November 10, 2023)
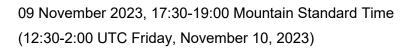
Hybrid Meeting: NOIRLAB Headquarters, 950 North Cherry Ave., Tucson, Arizona, and Zoom

Notes: MH

Original: 09 November 2023—Initial Draft
Updated:

Distribution to exec@ivoa.net

Present

Initials	Remote	Name	Institution	Email Address
JE		Janet Evans	TCG Chair	janet@cfa.harvard.edu
JJ		JJ Kavelaars	CVO	jj.kavelaars@nrc-cnrc.gc.ca
JS		Jesus Salgado	SKAO	jesus.salgado@skao.int
MA		Mark Allen	Euro_VO	mark.allen@astro.unistra.fr
MD		Markus Demleitner	GAVO	msdemlei@ari.uni-heidelberg.de
MH		Marcy Harbut	USVOA/NAVO, Exec Secretary	mharbut@ipac.caltech.edu
MM		Marco Molinaro	VObs.it & TCG Vice-Chair	marco.molinaro@inaf.it
RN	x	Robert Nikutta	USVOA/OIR	robert.nikutta@noirlab.edu
SO	x	Simon O'Toole	ASVO, Exec Vice-Chair	simon.otoole@mq.edu.au

Glossary

Acronym	Institution Name	Institution Website
ArVO	Armenian Virtual Observatory	https://www.aras.am//Arvo/arvo.htm
AstroGrid	UK VO initiative	http://www.astrogrid.org
ASVO	Australian Virtual Observatory	https://asvo.org.au/
BRAVO	Brazil Virtual Observatory	http://bravo.iag.usp.br/
China-VO	Chinese Virtual Observatory	http://www.china-vo.org
ChiVO	Chile Virtual Observatory	https://chivo.cl/
CVO	Canadian Virtual Observatory	https://www.cadc-ccda.hia-iha.nrc-cnrc.gc.ca/cvo/
ESA	European Space Agency	https://www.cosmos.esa.int/web/esdc
Euro-VO	European Virtual Observatory	http://www.euro-vo.org
GAVO	German Astrophysical Virtual Observatory	https://www.g-vo.org/
JVO	Japanese Virtual Observatory	http://jvo.nao.ac.jp/index-e.html
KazVO	Kazakhstan Virtual Observatory	https://fai.kz/
NLVO	Netherlands Virtual Observatory	https://www.virtualobservatory.nl/
NOVA	Argentina Virtual Observatory	https://nova.conicet.gov.ar

Acronym	Institution Name	Institution Website
OV-France	VO-France	http://www.france-vo.org
RVO	Russian Virtual Observatory	http://www.inasan.ru/organizational-activity/rvo/rvo/
SA3 (or SA[3])	South Africa Astroinformatics Alliance	https://sa3.ac.za/
SKAO	Square Kilometre Array Observatory	https://www.skao.int/
SVO	Spanish Virtual Observatory	https://svo.cab.inta-csic.es/main/index.php
UkrVO	Ukraine Virtual Observatory	http://www.ukr-vo.org/
USVOA	US Virtual Observatory Alliance	http://usvoa.cfa.harvard.edu
VO-India	Indian Virtual Observatory	http://voi.iucaa.in/voi/
VObs.it	The Italian Virtual Observatory	https://vobs.it
IVOA	International Virtual Observatory Alliance	http://www.ivoa.net

Agenda

1. Roll call and agenda
   - Regrets: Patricia Whitelock (SA3), Sebastian Gurovich (NOVA), Franck Le Petit (OV-France), Ada Nebot (CDS), Ajit Kembhavi (VO-India), Chenzhou Cui (China-VO), Christophe Arviset (ESA), Giuseppina Fabbiano (USVOA), Chingis Omarov (KVO), Rafael Santos (BRAVO), Yan Grange (NVO), Antonio Chrysostomou (SKAO)
2. Review and Approval of TM115 (PDF) Minutes
3. Review of Exec Actions for TM116 (PDF)
4. Project Reports [Significant Events Only]
5. Overall TCG Status
6. Approval of new IVOA Recommendation(s) [Standing Item]
7. CSP Status
8. New IVOA Chair and Vice-Chair (discussion chaired by Mark Allen)
   - Christophe and Simon's current terms are coming to an end during the current Interop
9. IVOA-IAU Liaison Group: Bruce update
10. IVOA Website
    - Dedicated hack-a-thon session during Interop
    - Standing item for future meetings
    - Draft new website: https://webtest.ivoa.info/
    - GitHub Repository: https://github.com/ivoa/ivoa-web
    - To report bugs and request changes: https://github.com/ivoa/ivoa-web/issues
11. Future Interop meetings
    - Northern Spring 2024: Sydney – Week of May 19
    - Northern Fall 2024: Malta - Week of November 10 (ADASS Nov. 10-14)
12. AOB
13. Review of new action items

Next Exec Meeting: TBD

Discussion

1. Roll Call and Agenda

- The names of the attendees are recorded.

2. Review and Approval of TM115 Minutes

- The minutes have been reviewed and approved.
- SO notes the date of the northern spring Interop has been incorrect in previous Exec minutes; it is actually happening the week of May 19, 2024
- **Action:** MH will correct the date in future meeting agendas and minutes.

3. Review of Exec actions for TM116

- **TM111.1** MH to reconcile the list of projects in the Exec and make sure they're reflected in the meeting notes template *DONE*

- **TM112.3** All Exec to send BB and SO the names of potential candidates to serve on the Organizing Committee of the IAU Functional Working. *IN PROGRESS*
  - *UPDATED ACTION: BB will summarize in an email the exact current information he's requested.*

- **TM115.1:** CA to ask Rob Seaman to find a meeting room for Exec meeting on Thurs. Nov. 8 at 5-7 p.m. local time. *DONE*

- **TM115.2:** MM to finalize IVOA Interop registration page and provide a link to Rob Seaman. *DONE*

- **TM115.3:** Action for all Exec members: Fill in their project report status before the next Interop, to at least provide a snapshot of their respective project's status (not systematically, but a few points). *DONE*

- **TM115.4:** AN will invite Rosie Bolton to join the CSP. *DONE*

- **TM115.5:** MM: Check with Klass on a potential target release date for the new website. *IN PROGRESS (to be discussed in meeting)*

- **TM115.6:** JE will email Tom Donaldson and cc: MM to see if he's interested in leading the Interop session on curating the website. *DONE*
  - Update: Steve Groom and Ann Raugh are leading a documentation hack-a-thon on Saturday at Interop.

- **TM115.7**: CA to activate the IVOA Chair and VC Search Committee to search for potential candidates. Self-nominations are welcome. *DONE*

4. Project Reports [Significant Events Only]

- MD: The Ministry of Research has launched a funding round for physics and astronomy-related disciplines with funding available for a three-year time frame.

- o MD is attending a strategy meeting with the ministry in February about what's needed for infrastructure projects.

- o If anyone has creative ideas on what MD can propose that would benefit the VO community, please reach out to him. He does plan to discuss A&A.

- o Broad statements that can be described in a three-year strategy statement are welcome.

- o The topic of the funding call is "Research in Universe and Matter" and applies to fundamental physics and astrophysics.

- o About 10 million Euros area being made available for the entire field; bonus points if it benefits high-energy physics as well.

- o SO asked it this applies to hardware.

  - ▪ MD: The ministry is emphasizing "federated infrastructures", which is appropriate for the VO.

- SO: The Australian government is focusing on digital research infrastructure and allocated $840 million AUSD over 3-4 years.

  - o The new strategy/white paper covers engineers, actual data, computing hardware, science platforms, software, cybersecurity, and identity services.

  - o They will be putting in a bid in the new year when funds are available.

  - o SO also invites ideas for engaging the VO, especially around collaborative roles with large facilities.

- JJ: Canadian SKA Regional Centre funding was secured in February with an indeterminate timeline. The LSST project was funded in Canada to handle data processing systems in Canada.

  - o We have a window before this project starts to introduce VO standards and integrate them into SRC processes.

- MA: Euro-VO is in between funding opportunities at the moment.

- RN: There is an NSF-mandated meeting in New York to discuss astronomical data structure. A white paper just came out (link: https://arxiv.org/abs/2311.04272). It calls for NSF and NASA to put funding into astronomical data.

5. Overall TCG Status

- JE: Two meetings were held on Oct. 10 & 24 focusing on Interop planning: sessions, program, etc. They also set up the Documentation Hack-a-thon special session with Steve Groom and Ann Raugh. You can do a lot with a hack-a-thon, but it's only 1.5 hours. It's also scheduled before lunch in case anyone wants to continue through lunch.

- JE reviewed the apps page: 14 of 29 links were broken; one of the links went to a gambling site. The three examples of getting started in the VO are outdated and inaccurate.

- They've set up a Google Doc to crowdsource all the issues everyone sees and another section on what should be added/built for the future.

- o MM: The pages are in GitHub, both the live pages and pages under development.
- o JE: Folks have said they want to tell their developers to go to Google to find the latest VO standards; the current website organization doesn't enable that. It's a fair request but not something we'll accomplish in 90 minutes.
- o MM: Website and doc repository are two separate projects.

6. Approval of new IVOA Recommendation(s) [Standing Item]

- **JE: There are four standards she will try to get put up to a vote during this Interop.**

7. CSP Status

- Deferred due to AN absence.

- **JE said she saw AN's slides for the following morning's report, and they look good.**

8. New IVOA Chair and Vice-Chair (discussion chaired by Mark Allen)

- Christophe and Simon's current terms are coming to an end during current Interop.
- MA: The current quorum is insufficient for a vote so we could extend the vote to email.
- After the last Exec meeting, we activated the search committee made of previous IVOA Chairs to ID potential candidates for Chair and Vice-Chair.
- The search committee proposes SO become Chair of IVOA and that JJ Kavelaars becomes the Vice-Chair.
- CA accepted a shortened (one-year) term until SO was available to step into the Chair position.
- For VC, the committee had previously approached JJ but he was not available to serve at that time. He is now available to take on the VC role. The search committee thinks this is the natural choice.
- During the search, other Exec members expressed a willingness to be nominated.
- SO said he is happy to accept the nomination and welcomes everyone to Sydney next year. He looks forward to the challenge of the role. We'll need to figure out how to fill in his role for the Theory IG.
  - o MA said there are no bylaws about dual roles.
  - o SO plans to continue in that role for now because it's a challenging position to fill. He will hand it over in May at the Sydney Interop.
  - o JE: There are some groups that can be dropped and other elevated.
  - o SO: It's a small and active group and pretty important as we go into the SKA and LSST era. It needs a strong champion.
  - o JJ said he has someone in mind that he will approach. Regarding the VC role, he's glad to be back. The VO is always an important part of the CADC.
- MA asked if the Exec should have a closed session w/o SO and JJ; consensus is no.
- **Action:** MA will draft an email summarizing the Chair and VC discussion so that CA may activate the approval process from Exec; email responses will be due by 6 p.m. MST Saturday, November 11.

9. IVOA-IAU Liaison Group

- **Deferred due to BB absence.**

10. IVOA Website

- MM: The new site is written in Hugo, a markdown solution that generates static HTML pages. There is currently a test website that has been presented to Exec.
- The Git repository contains the pages for the IVOA organization site. Klass asks to slowly release the new pages; people who are technically savvy can make pages and merge, but there should be an intermediate step of testing/staging before moving into production.
- Klass said he'll try to get some of Yan's time to work on this.
- The site will be hosted on web servers in Trieste.
- This topic will be a standing item for future Exec meetings.
- Timing for releasing the new website. Originally it was supposed to be updated by EOY 2023.
  - SO said the new site should be live by the next Interop.
- **Action:** MM to send MH the correct links for website test site and for comments for future Exec agendas.

11. Future Interop meetings

  - Northern Spring 2024: Sydney - Week of May 19 (Interop day one is May 19)
  - SO said the venue is booked. It's a really lovely new space that holds ~120 people.
  - The LOC is now looking at catering for which the project has some funds.
  - MM prefers the Sydney LOC set up the web page and registration pages.
    - **Action:** SO to work with Sydney LOC to set up the Interop web page and registration.
- Northern Fall 2024: Malta - Week of November 10 (ADASS Nov. 10-14)
  - Question of whether to hold Interop before or after ADASS.
  - SO will reach out to Alessio, the local Malta contact, to see if we can get a venue in the same complex or on campus.
  - MA: We'll need to make sure we introduce the IVOA and find out what kind of costs we will need to cover.
  - **Action:** SO will reach out to Alessio about Malta Interop regarding the venue, dates, costs, etc., and also provide an introduction to the IVOA.

12. Date of next Exec meeting

- We'll need to find a meeting time that works for both SO and JJ.
- If we can alternate between 20:00 UT and 12:00 UT; JE says TCG alternates between 13:00 and 20:00 UT.
- **Action:** MH will create a Doodle poll to schedule the next Exec meeting with options to vote for 20:00 UT and 12:00 UT on December 19 and 20, 2023.

13. AOB

- MM: For a future Exec meeting, should we discuss whether and how to revive the IVOA Liaison Committee (https://wiki.ivoa.net/twiki/bin/view/IVOA/IvoaLiaison)? The committee has been dormant and could be useful to respond to connection requests from the IHDEA heliophysics organisation and/or others.
    - SO said it's worth reviving this committee and would consider being involved in it. It's important to reach out to other communities.
    - JE: At the Bologna meeting there was an ad hoc meeting between HEASARC/Chandra, neutrino, etc. folks who met up—lots of high-energy folks. There have been three meetups and a mailing list created. At the last meeting, they discussed becoming a high-energy interest group for the IVOA. JE would like to have some help on how to guide this process.
    - When the radio group came to be there was a plenary for the group's presentation, which was the kick-off. More people are expressing interest in joining, which adds more weight to turning this into a more formal group.
    - JE would like to talk to someone who has already done this.
- MD said he would like to know what happened to the list of notes to push to ADS that he had compiled so they are citable and have Bibcodes. Giulia handles the specs, but it was up to the Exec to determine which Notes should be pushed. He would like to revive this effort as it's been about 10 years.
    - MD had brought this to CA's attention ~1 year ago so it needs to be back on the agenda.
    - Two kinds of Notes are possible to be listed in ADS; Endorsed Notes are labelled as IVOA.spec (specification) while Notes (not endorsed) would be labelled IVOA.rep (Report).
    - MA said some conversation related to this occurred before and there may have been a decision to not publish IVOA.rep notes.
- **Action:** MD will forward his original email to CA to the Exec list re: Notes.

14. Review of New Action Items

TM116.1: MH to correct the date for the Sydney Interop in future Exec meeting minutes and agendas.

TM116.2: MA will draft an email summarizing the Chair and VC discussion so that CA may activate the approval process from Exec; responses will be due by 6 p.m. MST Saturday, Nov. 11.

TM116.3: MM to send MH the correct links for the IVOA website test site and for comments on the new site.

TM116.4: SO to work with Sydney LOC to set up Interop web page and registration.

TM116.5: SO will reach out to Alessio about Malta Interop: venue, dates, costs, etc.

TM116.6: MH will create a Doodle poll to schedule the next Exec meeting with options to vote for 20:00 UT and 12:00 UT on December 19 and 20, 2023.

TM116.7: MD to forward his original email to CA to the Exec list re: Notes.

Project Reports

NOVA (Argentina)

ArVO (Armenia)

AstroGrid (United Kingdom)

ASVO (Australia)

We have launched a new group within Australian astronomy to coordinate data activities better. One of the goals of the group is to link with groups that have not previously been part of the ASVO, in particular, the gravitational wave groups, AusSRC, and theory/simulation groups. It also aims to build stronger ties with HPC facilities.

In other news, Data Central is currently undergoing a refresh, with the aim of improving usability and scalability. A large-scale refactor of the backend code is almost complete and we have just started a redesign of the frontend.

BRAVO (Brazil)

China-VO

ChiVO (Chile)

CVO (Canada)

ESA (Europe)

All science archives developed and operated by the ESAC Science Data Centre for ESA science missions (https://archives.esac.esa.int/) are using VO protocols within their data management systems. In particular, ESDC is maintaining a TAP+ common library used accross all ESDC archive services and supporting:

- TAP/DataLink authentication standardisation

- Automated support for IVOA ObsTAP (UTYPES, UCDs, Units, etc.)

- ADQL v2.1 support

- Improvement of services compliancy (Gaia TAP, Euclid TAP, and Gaia CS have now been brought to full compliancy)

Recent releases of Gaia Focus Products Release (FPR) in October for example provides data through VO protocols.

ESASky version 5.1 was released in June 2023 and includes 'up-to-the-minute' Gravitational Wave alerts from the LIGO-Virgo-KAGRA observing run 4 (accessible via the multi-messenger tool) and two new catalogues: the all-sky PLATO Input Catalogue (asPIC1.1) and the GLADE+ Galaxy catalogue. See full details here.

Euro-VO (Europe)

Activities of the Euro-VO partners has been supported by participation in the ESCAPE project (https://projectescape.eu/). ESCAPE concluded in January 2023, and the full set of activities and reports are available on the wiki page for the "VO" work package (https://wiki.escape2020.de/index.php/WP4_-_CEVO)

Euro-VO partners organised a Special Session on "Science with the Virtual Observatory: status, success cases, the future" at the European Astronomical society conference in Krakow, Poland (10-14 July 2023). https://eas.unige.ch/EAS2023/session.jsp?id=SS4

The Euro-VO Registry, developed and operated by ESA and available here, has had a couple of releases (v4.0 and 4.5) addressing update to RegTAP 1.2, adding HiPS search capabilities, and various bug fixes and improvements.

GAVO (Germany)

GAVO's Heidelberg data centre keeps adding resources at a rate of a few per semester. As the connector between the VO Registry and the EOSC, we have made some minor updates to the metadata mapping scheme to improve our representation and landing page for VO resources (prefix your favourite resource's ivoid with http://dc.g-vo.org/LP/ to try it out and give feedback). Also: if you have VO-related educational material, please register it so it shows up on http://dc.g-vo.org/VOTT.

We maintain and support our data publication package DaCHS. Notable improvements since the last interop include preliminary support for the new data-origin metadata and a proposed way to improve exporting of D-Links to ADS and similar services ("bibVO"). DaCHS 2.9 should be released shortly after the Interop.

We also participate in the development of pyVO, where we are working on global dataset discovery capabilities, drafted code to do epoch propagation based on our COOSYS proposal and keep rounding out the new registry API. GAVO has also funded an effort to improved the postgres extension pgsphere so catastrophic query plans (and hence execution times in the hours instead of seconds) become less likely.

In standards, we worked on astrometric functions in the UDF catalogue, tried to finally put sufficient annotation for epoch propagation into VOTable (outcome still uncertain) and fixed some other issues on the way to VOTable 1.5, produced another draft of the product-type vocabulary with a view to Datalink 1.1, and released an RFC-able version of VOUnits 1.1.

Also: Have a look at our blog, http://blog.g-vo.org

JVO (Japan)

Kazakhstan VO

NLVO (Netherlands)

OV-France

RVO (Russia)

SA^3 (South Africa)

SKAO (Square Kilometre Array Observatory; Australia & South Africa)

The SKAO is already in the active construction phase. The science verification phase for Array Assembly 2, AA2, composed of 64-station and 64-dish arrays in the two locations, is expected for Q3/Q4 2026. The SKA Regional Centres Network (SRCNet) is in the transition from prototyping to development phases, with the science verification phase milestone as the target for a simplified but open-to-the-community science platform.

During the last period, the SRCNet has been involved in several IVOA initiatives, in particular the ones related to the interoperability and connection between science platform nodes (required for the SRCNet federated deployment). SRCNet is participating in the leading of the Execution Planner standardisation and identifying other ways to transparently connect astronomical science platforms allowing heterogeneous local software stacks.

The SRCNet is making use of IVOA standards in its design and in its prototypes. The Data Management System prototypes include [ObsCore](#) TAP discovery services and metadata associated with the data using IVOA data models. Also, the Identity & Access Management (IAM) including Single Sign-on is designed to accept different identity providers and the Group Membership System makes use of the IVOA GMS protocol.

Apart from its active participation in the IVOA GWS WG, the SRCNet members are increasing their involvement in the IVOA Radio IG so radio data is better integrated into the IVOA context.

SVO (Spain)

UKrVO (Ukraine)

USVOA (United States)

CfA/CXC: CSC2.1 processing is 95% complete - Public release anticipated Jan 2024; DOIs included in catalog data products; Renewed HIPs/MOCs project for archive and catalog data; Upgrading CXC archive VO interfaces to latest versions; Organizing/participating in early High Energy IG meetings - last meeting reviewed Response files used by projects; Participating as TCG/WG/IG chairs and planning program/sessions for the upcoming Interop.

VO-India

VObs.it (Italy)

Besides the web assets operations and support, including IVOADoc activities, VO in Italy continues eforts in:

- Radio VO integration through activities of the INAF Radio Archives WG
- Gravitational waves interoperability investigation, including views about the Einstein Telescope

Report from the TCG

IVOA Interop Prep

- Met Oct 10 & 24 to plan Interop
- Prepared Program and WG/IG prepared sessions
  - Special session: Documentation Hackathon - led by S. Groom/A. Raugh

Reviewing status for vote on Recs at our TCG meeting on Friday morning (11/10)

- RECs: DataLink 1.1, ADQL 2.1, VOunit 1.1, SpectrumDM 2.1 on the docket
- Erratum: Obscore 1.1 Erratum 4
- Endorsed Note: UDF Catalogue 1.1

Report from the CSP