



IVOA November 2023
Interoperability Meeting

State of the IVOA

10-12 November 2023 interoperability meeting, Tucson, USA

Christophe Arviset, IVOA Chair



NOVA

Astro Grid

ArVO
American Virtual Observatory

ASVO
ALL SKY VIRTUAL OBSERVATORY

EAPO
EUROPEAN ASTRONOMICAL OBSERVATORY

China-VO

CVO

ChiVO
CHILEAN VIRTUAL OBSERVATORY

esa

EUROVO

GERMAN ASTROPHYSICAL
GAVO
VIRTUAL OBSERVATORY

Japanese Virtual Observatory
JVO

KazVO



NLVO

OV FRANCE

RVO

SKAO

NRF SA³
National Research Foundation South African Astronomical Alliance

SVO
Spanish Virtual Observatory

VObs.it

UKRVO

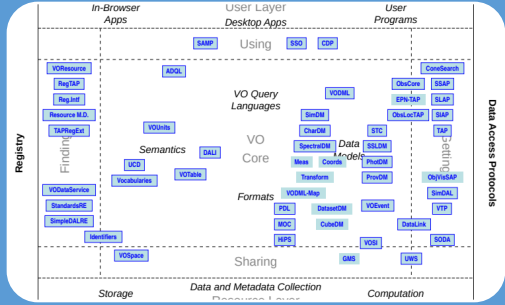
USVOA

vo-i

IVOA created in 2002
23 member VO Projects

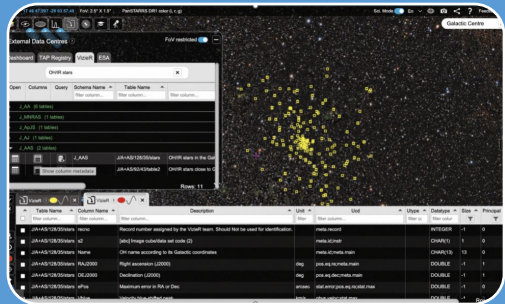
- 2 interoperability meetings per year
- 5 days around May
 - 3 days around Oct/Nov after ADASS

Vision of the International Virtual Observatory Alliance



Develop a FAIR data management framework for astronomy

- Interoperability standards (VO framework) amongst astronomical (ground and space based) archives
- Publishing tools for data centres



Enable new science through the VO

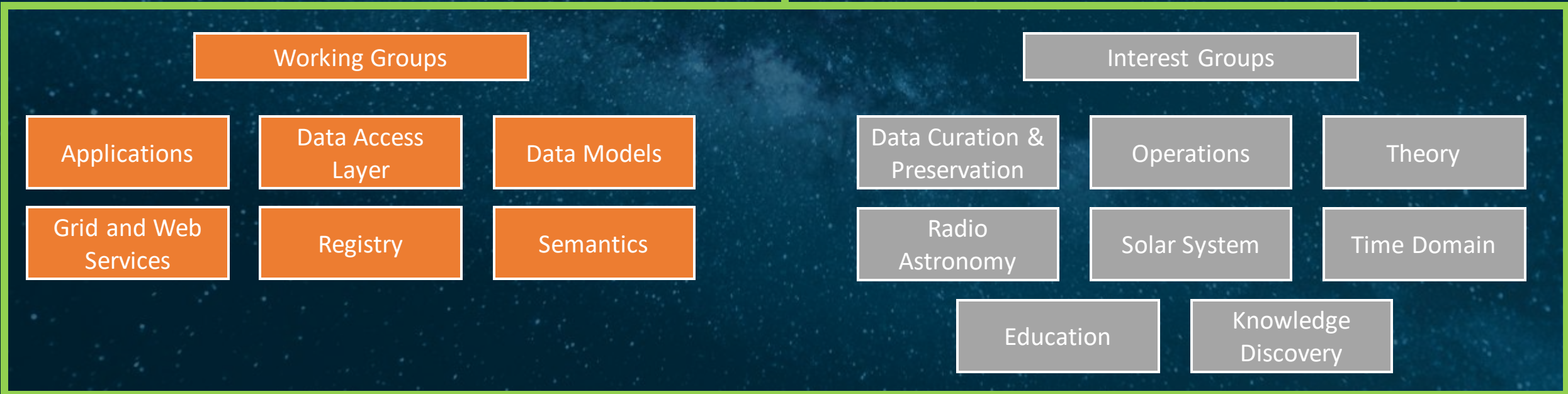
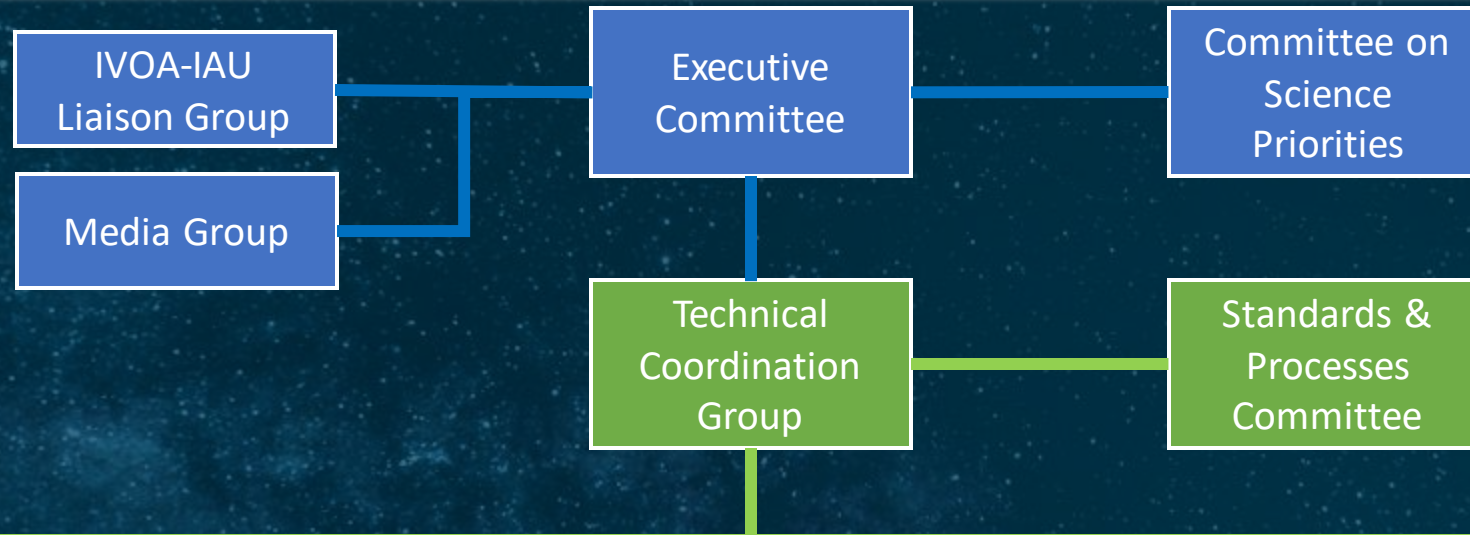
- Multi wavelength science, combining datasets from multiple sources
- Data discovery and data access tools
- Data analysis and visualization tools



World wide collaboration amongst astronomical VO projects

- Created in 2002, 22 projects today
- No formal funding, nationally funded projects
- Diversity makes IVOA's richness

IVOA Organization



Working Groups / Interest Groups



	Chair	Vice-Chair
TCG	Janet Evans	Marco Molinaro
Working Groups		
Applications	Pierre Le Sidaner	Adrian Damian
Data Access Layer	James Dempsey	Gregory Mantelet
Data Model	Mark Cresitello-Dittmar	Mathieu Servillat
Grid and Web Services	Jesus Salgado	Sara Bertocco
Registry	Renaud Savalle	Tess Jaffe
Semantics	Baptiste Ceconi	Sebastien Derriere
Interest Groups		
Data Curation & Preservation	Gilles Landais	Gus Muench
Education	Hendrik Heintz	Shanshan Li
Knowledge Discovery	Raffaele D'Abrusco	Yihan Tao
Operations	Steve Groom	Tamara Civera
Radio Astronomy	Francois Bonnarel	Mark Kettenis
Solar System	Anne Raugh	Markus Demleitner
Theory	Simon O'Toole	Giuliano Taffoni
Time Domain	Rafael Martinez Galarza	Pierre Fernique
IVOA Committees		
Exec	Christophe Arviset	Simon O'Toole
Standard and Processes	Patrick Dowler	
Science Priorities	Ada Nebot	Francesca Civano

WGs/IGs chair and vice-chair terms are 3 years, plus possibility of 1 year extension

WGs discuss proposals and make progress on astronomical data interoperability standards

IGs act on feedback from community from VO standards, IVOA operational ecosystem, projects future needs, ...



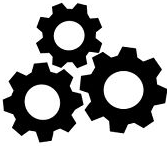
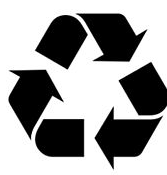
Wiki: <https://wiki.ivoa.net/twiki/bin/view/IVOA/WebHome>

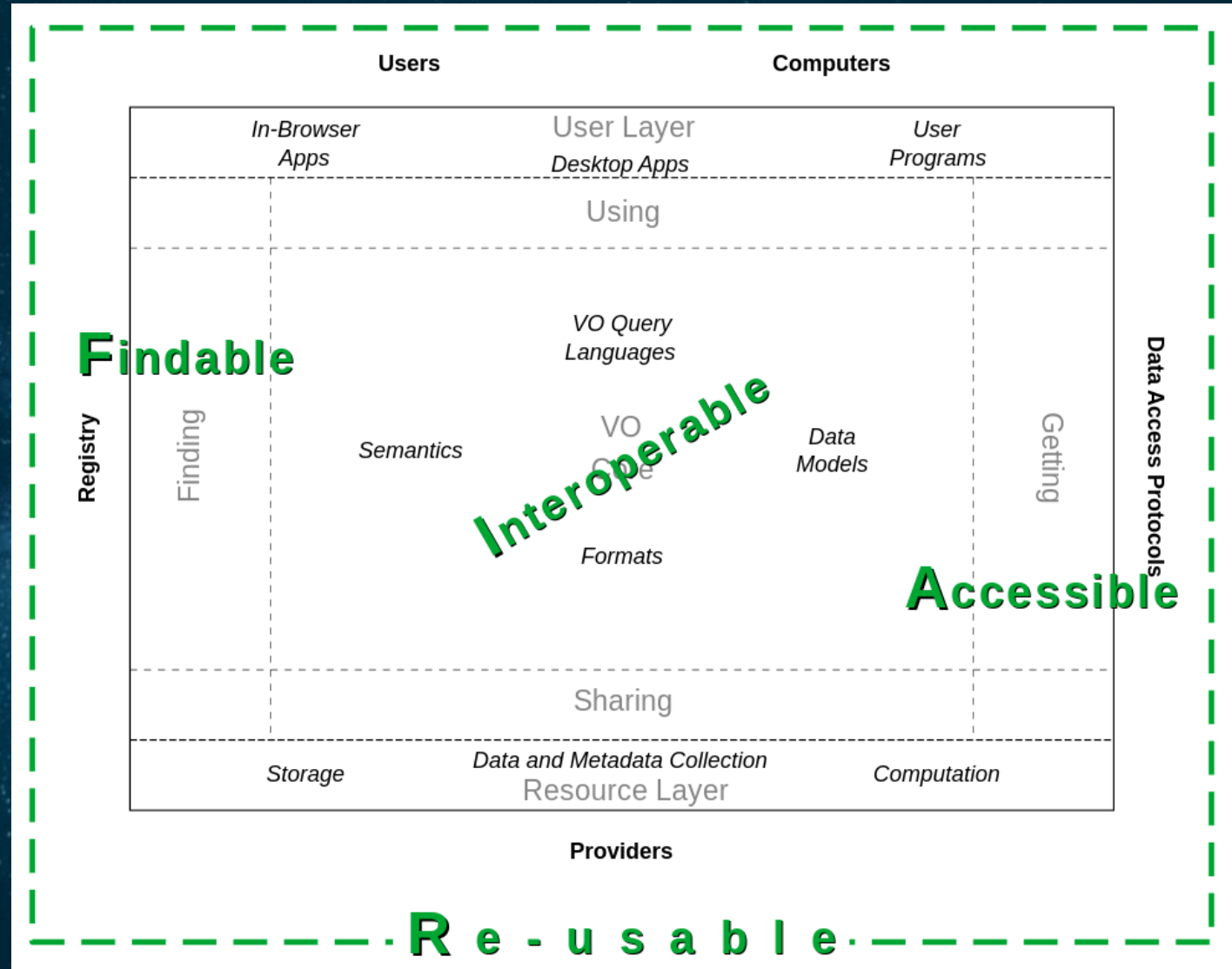
Slack: <https://ivoa.slack.com/>

IVOA Architecture – FAIR data management

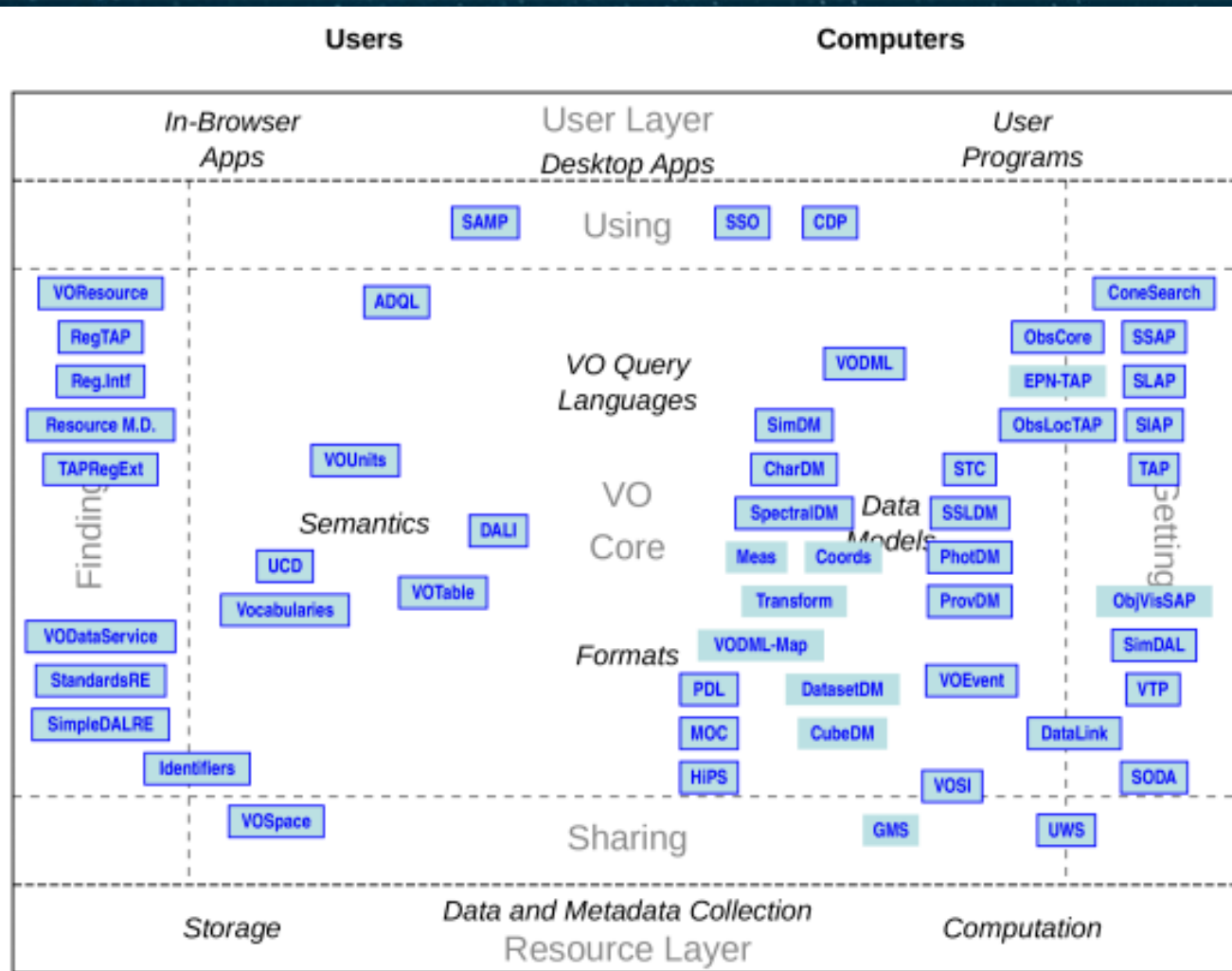


VO has been FAIR from the beginning!

F Findable	A Accessible	I Interoperable	R Reusable
			



IVOA Architecture – full picture with all standards



IVOA Architecture v2.0, last updated on 2021-10-29

<https://tinyurl.com/IVOAArch2>

IVOA is an open community – if a standard is close but doesn't fit – implement an extension & provide feedback to influence change to the standard

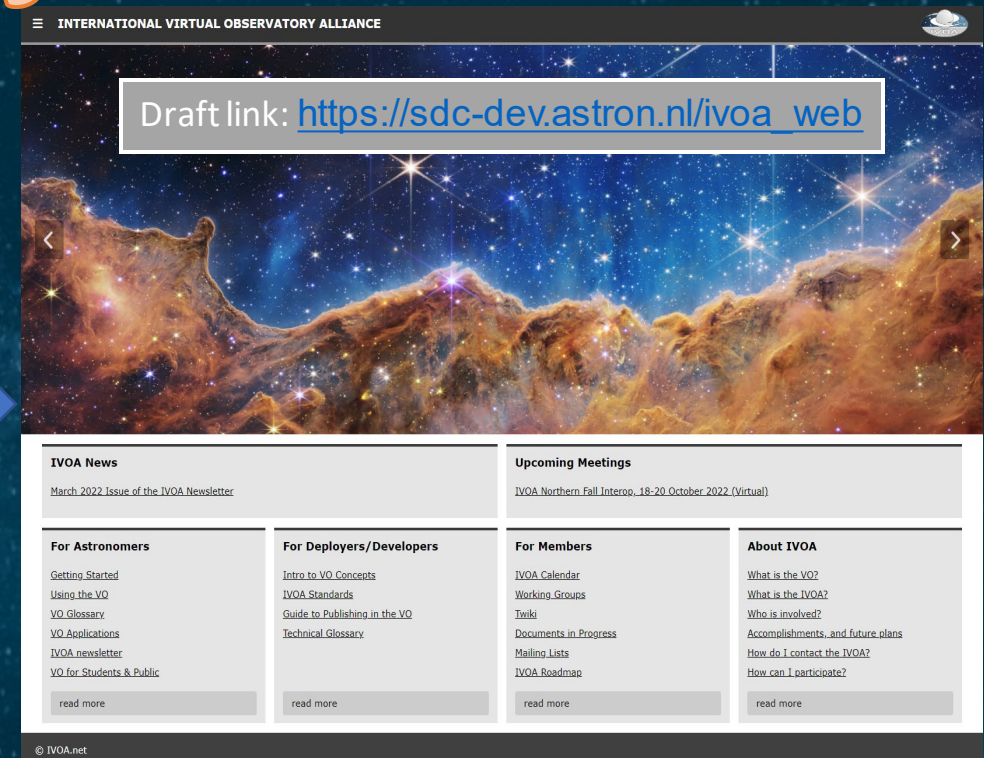
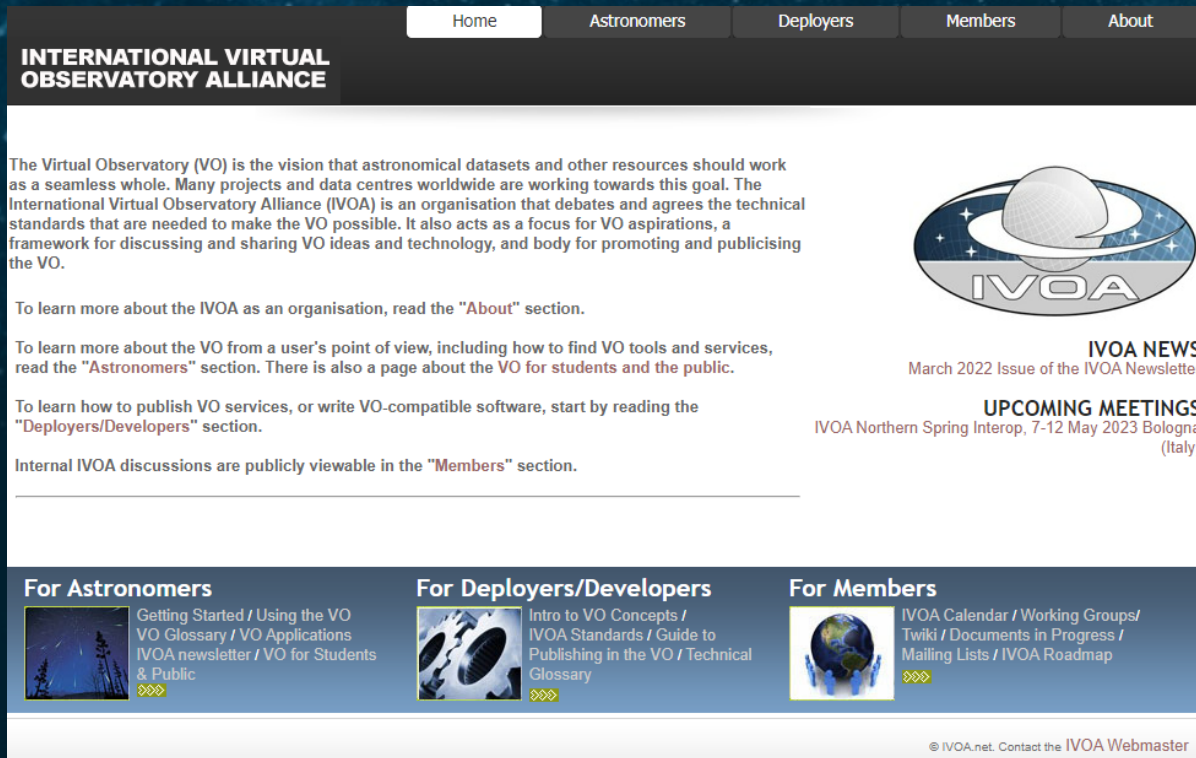
Figure 3: IVOA Architecture Level 2

IVOA web site new look and feel – in progress



Give a more modern look to the IVOA web site
No significant content change
Make information clearer and easier to access

Web Doc Hackathon
Saturday 11:00 @ N210



IVOA Media Group – call for volunteers!



Resuming IVOA Newsletter

- Great way to communicate IVOA and Projects VO activities in general
- Great way for VO project to advertise their tools, services, workshops, activities.
- Last one from March 2022

Help with (new) IVOA website

- More regular content update

IVOA Social media presence, i.e. Twitter/X

- @IVOAastro
- This meeting #IVOA2023Tucson

The screenshot shows the IVOA website with a navigation bar (Home, Astronomers, Deployers, Members, About) and the main content area. The main content area features the IVOA logo, the title 'IVOA Newsletter', a description of the newsletter, the latest issue (025, March 2022), and a list of archives from 2008 to 2022. At the bottom, there are three columns of links for 'For Astronomers', 'For Deployers/Developers', and 'For Members'.

INTERNATIONAL VIRTUAL OBSERVATORY ALLIANCE

Home Astronomers Deployers Members About


IVOA Newsletter


This biannual newsletter for astronomers is intended to highlight new capabilities of VO tools and technologies for doing astronomy research. It also lists recent papers, and upcoming events. Comments are of course welcome, and you may contact the editors directly via ivoa-news-editors@ivoa.net.


Latest Issue: 025, March 2022
Northern Fall Interoperability Meeting Overview,
Schools And Workshops,
VO Applications And Implementation Highlights,
Recent Papers About VO-Enabled Science
... and more

Archives:

- Issue 025, March 2022
- Issue 024, July 2021
- Issue 023, February 2021
- Issue 022, July 2020
- Issue 021, September 2019
- Issue 020, January 2019
- Issue 019, August 2018
- Issue 018, December 2017
- Issue 017, June 2017
- Issue 016, December 2016
- Issue 015, October 2015
- Issue 014, June 2015
- Issue 013, October 2014
- Issue 012, May 2014
- Issue 011, September 2013
- Issue 010, May 2013
- Issue 009, October 2012
- Issue 008, May 2012
- Issue 007, October 2011
- Issue 006, May 2011
- Issue 005, November 2010
- Issue 004, May 2010
- Issue 003, November 2009
- Issue 002, May 2009
- Issue 001, December 2008

For Astronomers
 Getting Started / Using the VO
VO Glossary / VO Applications
IVOA newsletter / VO for Students
& Public

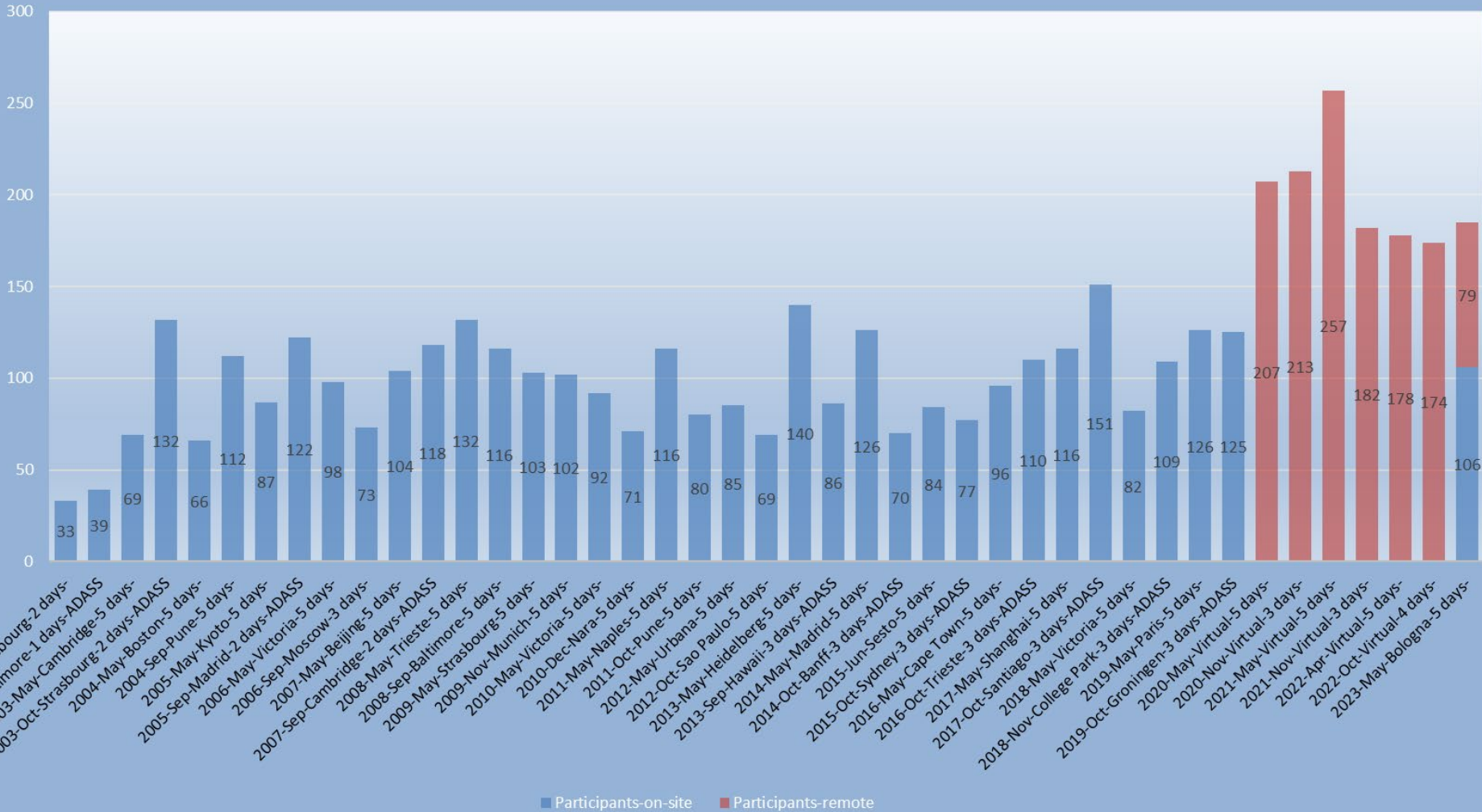
For Deployers/Developers
 Intro to VO Concepts /
IVOA Standards / Guide to
Publishing in the VO / Technical
Glossary

For Members
 IVOA Calendar / Working Groups/
Twiki / Documents in Progress /
Mailing Lists / IVOA Roadmap

Good to be back together !!



NUMBER OF PARTICIPANTS PER IVOA INTEROPERABILITY MEETING



Hybrid meeting
118 participants !

- 67 on-site
- 51 remote

IVOA community
still very much
alive!



IVOA Code of Conduct

(Approved by the IVOA Exec on Feb. 18, 2020)

It is the policy of the IVOA that its members and all participants in IVOA activities should experience an environment that is free from harassment. We want to promote a diverse and inclusive environment with respectful and courteous behaviour and therefore we expect all participants to adhere to the following guidelines:

- Behave professionally. Refrain from harassment in any form, including: sustained disruption of talks or other events; inappropriate physical contact or intimidation; potentially offensive comments related to for example: age, gender, sexual orientation, disability, physical appearance, race, nationality, politics or religion.
- Ensure that all communications are appropriate for a professional audience that may include people with different backgrounds. Sexual or sexist language and imagery are never appropriate.
- Be considerate and respectful to others.
- Critique ideas, not people.

This code of conduct applies to all IVOA community interactions online and offline, including mailing lists, forums, social media, conferences, meetings, associated social events, and one-to-one interactions.

Because of the wide international nature of the IVOA, it is important to realize that behaviour and language that are welcome/acceptable in one particular cultural environment may be unwelcome/offensive in another. Consequently, individuals must use discretion to ensure that their words and actions communicate respect for others

Anyone who witnesses a deviation from these guidelines is asked to communicate confidentially to the Chair or Vice Chair or any member of the IVOA Executive Committee. The IVOA Executive will take the necessary corrective measures.

We thank you for helping us to make the IVOA a welcoming, diverse and respectful environment for all.

IVOA upcoming big challenges to tackle



Science
Platforms

ML, AI for
astronomy

Big data in the
VO

Cloud and the
VO

VO reliable
services

Engagement of
big projects

Link
w/neighbourhood
communities

IVOA and the
IAU

...



...

Let's now go with it !

Thanks to Tim, Glenaver, Lubianca and Rubin and Steward Observatory for hosting this interop

Thanks to Janet and Marco and all WG/IG chairs for putting up the programme

Looking forward for a fruitful, constructive and interactive meeting!

Remember it's a hybrid meeting, keep including remote participants

Friday November 10, 2023	Time	Room	Topic	
0	8:00-9:30	NOIRLab (Rm 27)	TCG Face-to-face meeting	
	9:30-10:00	Steward (N 210)	Break	
1	10:00-10:15		Welcome and Logistics	<i>local</i>
	10:15-10:35		State of the IVOA	Christophe Arviset
	10:35-10:50		CSP	Ada Nebot
	10:50-11:00		State of the TCG	Janet Evans
2	11:00-12:30		Charge to Working Groups	WG/IG Chairs
	12:30-14:00		Lunch break	<i>local restaurants</i>
3	14:00-15:30	Steward (N 210)	<u>DAL 1</u>	James Dempsey/Gregory Mantelet
		Steward (N 204)	<u>SSIG</u>	Anne Raugh/Markus Demleitner
	15:30 -16:00		Break	
4	16:00-17:30	Steward (N 210)	<u>GWS</u>	Jesus Salgado/Sara Bertocco
		Steward (N 204)	<u>Semantics</u>	Baptiste Cecconi/Sebastien Derriere
Saturday November 11, 2023	Time	Room	Topic	
5	9:00-10:30	Steward (N 210)	<u>DM</u>	Mark Cressitello-Dittmar/Mathieu Servillat
		Steward (N 204)	<u>DCP</u>	Gilles Landais/Gus Muench
	10:30-11:00		Break	
6	11:00-12:30	Steward (N 210)	Web Doc Hackathon	Steve Groom/Anne Raugh
		Steward (N 204)	<u>Radio</u>	Francois Bonnarel/Mark Kettenis
	12:30-14:00		Lunch break	<i>local restaurants</i>
7	14:00-15:30	Steward (N 210)	<u>Apps1</u>	Pierre Le Sidaner/Adrian Damian
		Steward (N 204)	<u>Registry</u>	Renaud Savalle/Tess Jaffe
	15:30 -16:00		Break	
8	16:00-17:30	Steward (N 210)	<u>DAL 2</u>	James Dempsey/Gregory Mantelet
		Steward (N 204)	<u>TDIG</u>	Rafael Martinez Galarza/Pierre Fernique
Sunday November 12, 2023	Time	Room	Topic	
9	9:00-10:30	Steward (N 210)	<u>Ops</u>	Steve Groom/Tamara Civera
		Steward (N 204)	<u>Apps2</u>	Pierre Le Sidaner/Adrian Damian
	10:30-11:00		Break	
10	11:00-12:15	Steward (N 210)	Closing Plenary	
		50	Summary from Working Groups	WG/IG chairs
		10	TCG Closing Remarks	Janet Evans
		10	IVOA Exec Closing Remarks	Christophe Arviset