



Applications Working Group – Closing Remarks

Virtual IVOA Interoperability Meeting, November 2021

Tom Donaldson and Adrian Damian (chairs)

3 sessions on a variety of applications

Thanks to the presenters for very interesting content and to everyone for participating!

Summary slides to follow, but see the [program pages](#) for more details.

- Notes
- Slides
- Audio and video recordings



Highlights – Session 1

PyVO status - Adrian Damian

- Demand is growing (astroquery, VO outreach, end users, VODML, ref implementations?)
- Need help! PyVO is a community effort, and currently does not have dedicated developers.
 - Any participation (large and small) from developers and standards experts is valuable.
- Meeting next week!

IPAC's work with Spectral data model – Trey Roby

- Impressive Firefly interactive features making use of spectral data model and TAP

Recent developments in AAS WorldWide Telescope – Peter Williams

- Versatile notebook support with Jupyter Labs
- Display/zoom very large images in context



Highlights – Session 2

Target List Visualization and Classification – Brent Miszalski

- Feature-rich web app leveraging Aladin-lite and Data Central's Data Aggregation Service

Advanced TAP Client – Cyril Obrecht, Laurent Michel

- Web app that guides the user in creating multi-table TAP queries

CASSIS Aladin Plugin – Jean-Michel Glorian

- Tightly-integrated combination of Aladin's general discovery and visualization features with CASSIS' domain-specific spectral analysis features.

Astronomical Data Sonification – Adrian Garcia Riber

- Shows multiple approaches to automated data sonification, suggesting that audio could be added to the VO user experience. See slides for links to individual demo videos!



Highlights – Session 3

MOCServer v2 – Pierre Fernique

- Demonstrates impressive (even surprising) performance in searching among thousands of data collections based on space and time coverage
- Part of the suite of implementations for MOC 2.0 (supporting time and space-time coverage)
- Please review [MOC 2.0 Proposed Recommendation!](#)

Blind discovery and semantics for resource discovery with WIRR – Markus Demleitner

- [Powerful web interface](#) for querying the registry for a variety of use cases, with awareness of UAT and UCD terms

What's new on [ESASky 4.0](#)? – Nuria Álvarez Crespo

- New features include browsing for gravitational wave and related data as well as Hubble press release images.



Themes

Real-world use of VO

- MOC and MOCServer
- TAP, including improved client support for creating and understanding queries
- SAMP
- Discovery and analysis of spectral data
- Registry use – blind discovery.
 - WIRR and PyVO
- Starting to see more DataLink support from both providers and clients
 - DAL group continues to enhance based on feedback

Real successes! And ongoing challenges...

- Tools, both long-standing and brand new, evolving to meet user needs via VO standards
- Feedback from these implementation efforts is crucial to improving the standards and achieving real utility.



Many Ways to Participate

General involvement

- E-mail: apps@ivoa.net (subscribe at <http://mail.ivoa.net/mailman/listinfo/apps>)
 - Monitor discussions and share your implementation experience, questions, feedback
- Slack channels: IVOA#applications, astropy#pyvo
- VOTable standard on [github](#): watch, comment, submit PRs

Specific items now

- Comment on [MOC 2.0 Proposed Recommendation](#)
- Review/comment PyVO Pull Requests. E.g.,
 - [Support for TAP table create/delete/upload CADC prototype](#)
 - [WIP: Move astropy.samp to PyVO](#)
- Attend PyVO meeting next week!
 - Details to follow on IVOA program page, Apps mail list, Slack IVOA#Application and astropy#pyvo