



Implementations

- Many wonderful demonstrations
 - Beautiful use of the dome!
- Very encouraging to see so many implementations against so many standards.
 - HiPS, VOTable, MOC, TAP, DataLink, ProvTAP, ProvHiPS, SSA, SLAP
 - Python developments
 - PyVO being used in production services! (AAO)
 - MOCPy supporting Space-Time MOC
 - pyESASky enabling JupyterLab communication
 - We are seeing VO as a foundation for more and more archives, tools and applications
- Implementations provide feedback for improving our standards
 - We see where it's difficult for users and developers
 - New guidance on how to use standards (e.g., benefits to retaining HiPS FITS files)



Standards Status

- HiPS
 - Working well. No need to change at the moment!
 - Pierre Fernique: HiPS: 2 years after the IVOA standard (pdf)
- SAMP
 - Still used and useful, but limited for Web Apps by HTTPS
 - Mark Taylor lead discussion on options (pdf)
 - More interest than expected in pursuing solution
 - Mark will continue investigation, but would require additional implementation (Python)
- MOC
 - Work beginning on version 2.0 to support new dimensions (time first, then energy...?)
 - Initially guided by ST-MOC implementations
 - Pierre Fernique will lead the effort and encourages participation
- VOTable
 - Lots of changes are proposed both major and minor (will be moved to github issues)



Participation

Anyone with an interest is encouraged to participate!

- Much work to do on VOTable, MOC and maybe SAMP
- Application development in general

Keep in touch!

- Apps wiki page: https://wiki.ivoa.net/twiki/bin/view/IVOA/IvoaApplications
- Mail list: <u>apps@ivoa.net</u>
 - Subscribe at http://mail.ivoa.net/mailman/listinfo/apps
 - Archive: http://mail.ivoa.net/pipermail/apps/
- Slack channel: ivoa.slack.com #applications

