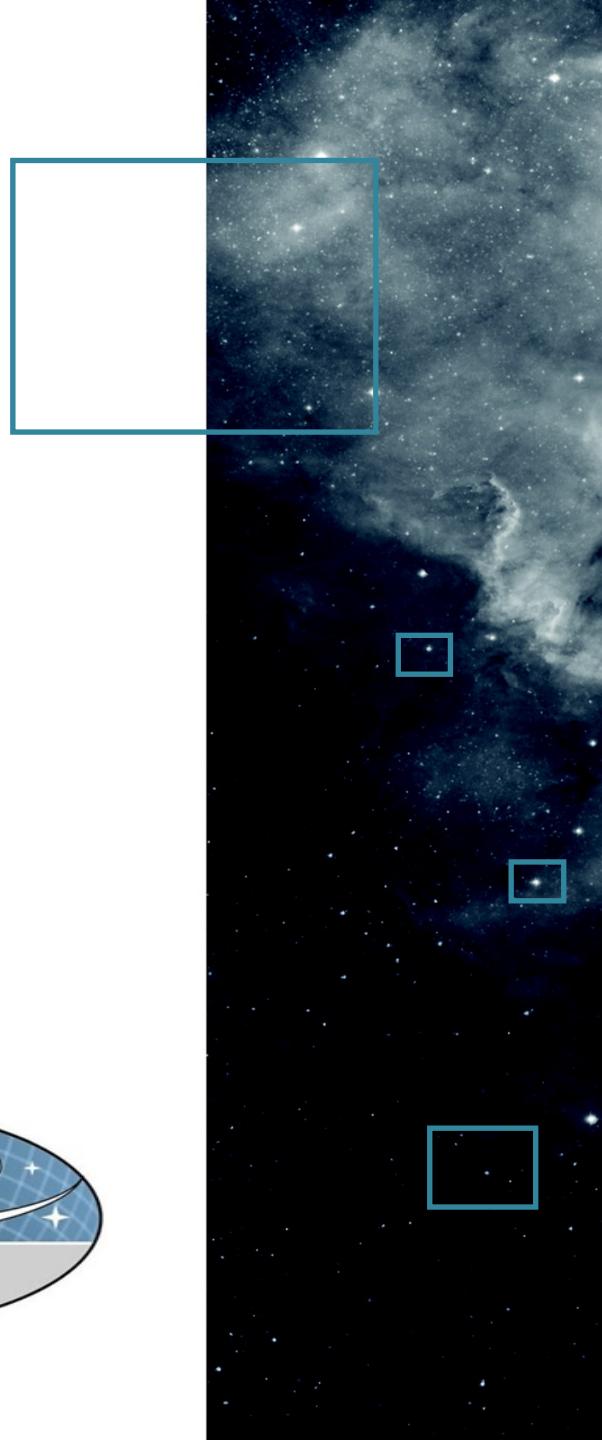


ESFRI requirements for VO standards



- François Bonnarel
- On behalf ESCAPE CEVO (task 2)



HiPS in ESFRI projects

Lessons learnt

- ASTRON : apertif, tmss
- SKAO : simulated data
- ESO images
- Others ?



HiPS in ESFRI projects Lessons learnt





MOC, STMOC *Emoc* ?

- EGO/VIRGO
- STMOC spec
- STMOC in VizieR/Aladin



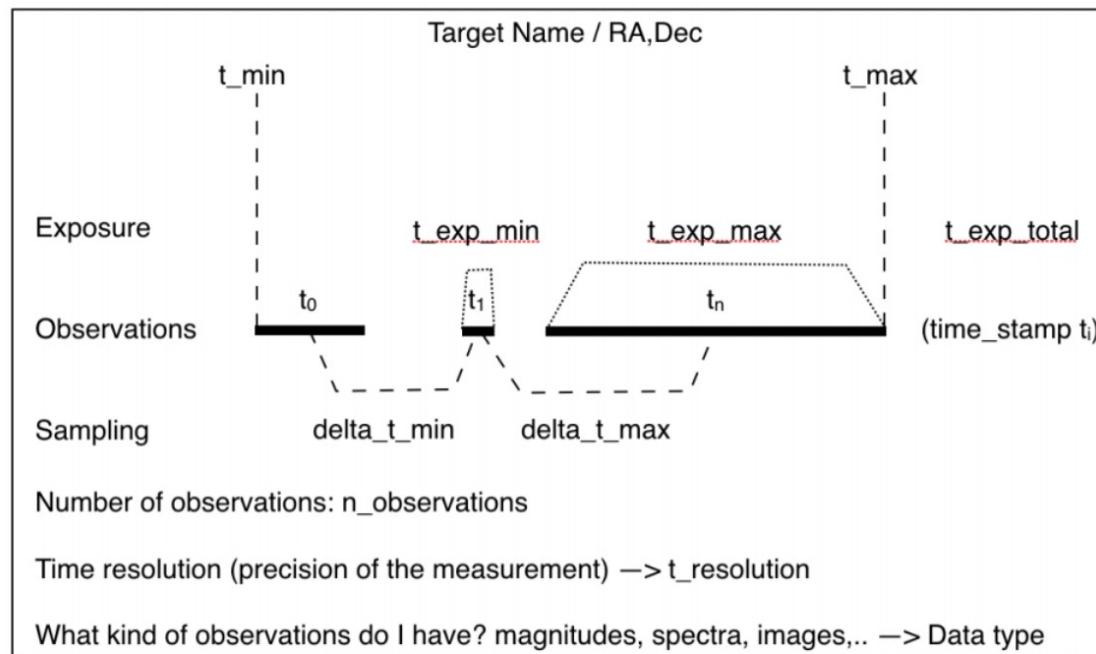
Obscore Time extension

- Adding new characterisation attributes for Time Axis

- `t_exp_min`, `t_exp_max`, `delta_t_min` and `delta_t_max`, `t_format`
- See Louys et al for more details :

<https://wiki.ivoa.net/internal/IVOA/InterOpNov2020DM/ObscoreExtensionforT-Interop.pdf>

- Who could need that : SKA, JIVE, ASTRON (pulsar data) CTA. ESO ? Others ?



Thanks to
Ada Nebot

DAL protocols – TimeSeries discovery

- ObsTAP + Time extension
- ObsTAP + source parameters
- SIA-like for TimeSeries discovery
 - → towards SimpleDatasetAccess with timeSeries specialization ?
- DataLink = content_qualifier to hook TimeSeries
- SODA : extracting/reprocessinf a TimeSeries from a larger one or from acube with Time ?
- ConeSearch = adding the « TIME » parameter (time interval constraint)
- Interesting for = same ESFRIS as above ?



DAL protocols – Images, cubes, spectra

- SIA-like for generic dataset discovery
- → towards SimpleDatasetAccess with various specializations ?
- → specialization for spectra, event lists as well as time series ?
- DataLink = content_qualifier to hook Spectra, cubes, visibilities to sources
- DataLink service descriptors upgrade
- SODA : extracting images, spectra, timeseries from cubes as well as subcubes
- SIA and SODA for rebinning/resampling
- Interesting for = ESO ? ALMA ? EST ?



DataModel for sources, timeseries, spectra, etc... Serialization and annotations

- Source model never achieved
- Model to associate various parameters
- Using Coords, Meas and Trans datamodels
- Solutions for Cubes, sparse data, TimeSeries, spectra
- Linked to that = serialization/annotation mechanism (also valid for Provenance)
- Serialization
- DM WG Workshop in May to find out workable datamodels and practical solutions on real use cases



Visibilities / interferometry data

- Three issues :
 - Split observations in consistent datasets
 - Define Obscore attribute values
 - Add specific radio/interferometry extension to ObsCore
 - JIVE and ASTRON (+ INAF-Radio, ObsParis) maybe ALMA and SKA



ObsCore for interferometry/radio data

- Add f_min, f_max
- typical s_fov as lambda/D
 - Addition of intervals : s_fov_min, s_fov_max
- s_resolution estimated from maximum baseline
 - s_resolution_min, s_resolution_max
- Beside s_resolution, add s_max_angular_scale
 - estimated from shortest baseline
- Access to « Primary beam » and « synthesized beam », « dirty beam » using DataLink
- Instrumental description
 - Antennae positions , number of antennae, min and max distances
- Uv plane characterisation
 - Uv distances : min and max , uv excentricity, uv filling factor
 - Uv coverage map using datalink





ADQL

- Compatibility with DALI xtypes
- REGION saved
- What else important for ESFRIs
- → GO to RFC
- Who can push ?





Semantics

- UCDs for solar data
 - Start a task group ?
 - Vocabulary 2.0 and list of terms
 - VEP for semantics in DataLink
 - DataProduct type
 - Others ?





VOEvent

- CTA, KM3net, Jive , EGO/VIRGO, EST, others (?) may have interest
- How to discover (past) events ?
- Other issues ?





caproles

- resources/data collection may have
 - Several capabilities
 - Which may have several interfaces
 - VOResource upgrade
- Who has interest ?

