Solar System Interest Group

IVOA May 2019 - Closing

Baptiste Cecconi (Obs. Paris)
Steve Joy (UCLA & NASA/PDS)

Solar System Interest Group Sessions: May 2019, Paris, France

Plenary			
Monday, May 13, 16:00--17:30, Salle Le Verrier			
Speaker	Title	Materials	Time
Tom Stein	Status of the IPDA		15+3
Chiara Marmo	GeoFITS: proposing a planetary surface extension for FITS metadata		15+3
Stéphane Erard	Europlanet-VESPA		15+3
Eleonora Alei	Exo-MerCat: a merged exoplanet catalog		15+3
Pierre Le Sidaner	A short guide for publishing planetary data in the VO		15+3

Splinter			
Tuesday, May 14, 11:00--12:30, Salle Le Verrier			
Speaker	Title	Materials	Time
Pierre Le Sidaner	Querying NASA/PDS with VESPA/EPNcore keywords		15+5
Véronique Delouille	Sharing Solar data with ESCAPE		15+5
Steve Joy	Planetary Reference Frame nomenclature (status)		15+5
Stéphane Erard	Using Datalink and nice to have functions		15+5
	Discussion		10

Key points

- **IPDA/IVOA:**
  - several IPDA members attended this IVOA (S. Hughes, S. Joy, T. Stein…)
  - Chenzhou Cui attended IPDA

- **SSIG:**
  - **EPN-TAP 2.0 Working Draft** on its way (thanks to Markus)
  - Solar Physics Extension ?

- **Semantics:**
  - UCDs from VESPA/EPN and SolarNet/ESCAPE
  - Observation Facility and Reference Frames
  - Datalink semantic terms

- **TDIG:**
  - VOEvent inputs from VESPA and SolarNet/ESCAPE
  - ST-MOC !!! 😍😍

- **DM:**
  SourceDM: inputs from planetary / solar science?

- **Registry:**
  - link with B2FIND => consolidation/improvement of Registry for discoverability

Roadmap 2019

- **EPN-TAP 2.0 Working Draft***

- **Semantics:**
  - First draft Observation Facility*
  - First draft Reference Frames*

- **TDIG:**
  - Propose VOEvent changes through Github merge requests
  - ST-MOC !!! 😍😍

- **Registry:**
  - add UAT top level keywords on EPN-TAP registry records

(deliverable of EPN/VESPA project…)

Topics for SSIG

DM / Semantics 🔄 Standard List Coordinate Systems and Reference Frames. Link with NASA/NAIF SPICE system for possible implementation in STC.

🟧 Standardization of planetary observation geometry (linked with the OGC/GIS community), covers semantics, data model and implementation

DM / DAL 🔄 Consolidation of EPN-TAP (Solar System flavor of ObsTAP, developed by Europlanet/VESPA). Adjustments of Table Access Protocol (TAP) and Astronomical Data Query Language (ADQL). Future IVOA Standard ?

Semantics 🔄 Standard List of Ground Observatories and Space Missions.

🔄 Work with Astronomy Data Centers to enhance the distribution of their planetary products (ESO, CADC, HST…)

Registry 🔄 Cross-matching of registries (IVOA, SPASE, NASA/PDS…), at least on Dublin Core.

Apps 🔄 Promoting and extending SAMP (Simple Application Messaging Protocol), adding new message types (e.g., PDS3, PDS4, netCDF, HDF5…)

DM / Semantics 🔄 Reviewing and extending IVOA Data Models and Semantics to Solar and Planetary Sciences.

DAL / Apps ⏸ Proposing new serialization examples for IVOA standards with file formats used in solar and planetary sciences (CDF, netCDF, HDF5…)

✅ FITS keyword standardization for Planetary targets (ongoing work within VESPA and USGS)

TDIG 🔄 VOEvent for "Space Situational Awareness" (SSA) for Earth and planetary events.

🟧 Exoplanetary sciences (using planetary standards for exoplanetary data to enhance comparative analyses)