*Minutes of the Semantics session - Monday May 9, Stellenbosch University, SA.*
*By Franck le Petit, Mireille Louys*

### Embedding UCD user interface into TAP schema (Marco Molinaro, INAF)

A tool to help the mapping of a UCD term into table columns defined for a TAP service.

Build up as a web service interacting with the current CDS assignation tool.
From a simple description text --> propose a UCD string
Offers a REST Interface wrapping the CDS tool, initially programmed in SOAP a web programming strategy mostly deprecated now.

Baptiste Ceconni mentions the GAVO UCD assignment tool.
This prototype proposes UCD mark up from a description text and a learning algorithm based on a collection of tagged tables maintained at GAVO.
Sebastien Derriere mentions the rules to assign a UCD in the CDS tools are based on context learning and specialized weighting algorithms trained on the Vizier data collection.
When new terms are added in the UCD thesaurus, new rules are assessed and trained on real data.

Question by Alberto Micol:
How could we define UCD terms for identifying a measurement obtained with a particular filter bandname or id.
In a catalog, qualify the filter class used for a particular filter waveband
What do we need? e.g mag observed in filter u, g, b, r , z , i etc ...
Discussion: the pb is that these letter tags do not universally specify the filter coverage; they depend on the instrument features.
the main waveband intervals exist in the UCD vocabulary
S | em.IR.3-4um | Infrared between 3 and 4 micron
S | em.IR.4-8um | Infrared between 4 and 8 micron
....
S | em.UV.100-200nm | Ultraviolet between 100 and 200 nm FUV Far UV
S | em.UV.200-300nm | Ultraviolet between 200 and 300 nm NUV near UV

Mireille Louys: Should we use a label produced by a Filter profile Service (SVO) which references most of existing filters?
Carlos Rodrigo (SVO)   says he has around 600 filters recorded in his service.
The need seems to clarify the filter used to record the observed mag. May be solved with another tag into the VOtable serialisation like LINK or PARAM referencing a FilterID?

Suggestion: Agreed to discuss this topic together with Data model working group.

### Observation facilities in the VO (Baptiste)

Identified a need to list all facilities used in planetary science and astronomy in general, together with instruments used for observation and simulations.
Proposal for extension of the VO-Resource specification
        -> Name + Alternative names
        --> Unique ID
A compilation of existing lists already started
New features to define, e. g. decription of the horizon line for a particular pointing at a particular observatory location.

Question: Who should take care of this registry of facilities?
Observatories Science committees? IVOA?
A need identified by the librarians for journals and datacenters.

### *UCD for planetary science (Baptiste)*
Missing UCDs terms for instance:
    magnetic potential vector
    electric current density
    reflectance to be distinguished from albedo
    etc …
Where do we stand in the definition of new UCD terms as asked for planetary science needs?
Mireille : assignation tests with real data started last year. More data and expertise needed for validation.

### *UCDs maintenance (Mireille Louys) Discussion moderated by Alberto Accomazzi*
Regular update of the IVOA UCD standard document with the list of recommended terms.
Looking for a better process for suggestion, insertion and publication of the UCD list.
Maintenance of versioned lists.

Tom Donaldson:   Access to a machine readable document is crucial together with the history of changes.

### *Discussion moderated by Alberto Accomazzi*    How to curate VO semantics?

Mireille: same maintenance issue for Vocabularies e. g. possible terms for the DataLink 'semantics' field.
Asked in the semantics session at last Interop in Sydney.

All seem to agree on: a ticket service for vocabulary review ( including UCD updates)
Proposal:
- request for new terms sent to the semantics list
- semantics group to launch review iteration and check the schedule
- application target group to review the vocabulary (ex: Theory , Time domain IG, etc.)

New terms added can be proposed as rfd vocabularies, with a namespace.
If stable , may be proposed for an IVOA validation process, may be as endorsed note.

Mireille Louys/ Franck le Petit: Maintenance issue for the Theory Vocabulary
purl ( persistent Url no longer maintained ) what to select as a replacement ?
https://w3id.org ?   or   http://ivoa.net/rdf   ?
Need for science expertise anyway.