Theoretical Virtual Observatory Workshop

IAP

2006, April 5-6
Why this workshop?

- It was soon recognized at international level (IVOA) that theory (i.e. numerical simulation data) could be an important component of the VO $\Rightarrow$ IVOA Theory Interest Group (cf. Lemson talk).
- In parallel, growing interest by numerical French community but first VO projects were mostly driven by data centers and/or observational surveys.
- Theoretical VO development are most often a sub-project inside wider numerical projects (cf. afternoon talks)
Need for national organization

- In spite of many differences (funding frames, funding agencies, constraints, scopes,...), all national VO projects have by one way or another links with their data centers and/or simulation projects (for codes or simulated data).
- Despite that we are so international, we still need to operate on national budgets!
- ⇒ need to organize French community
  - VO-France (Action Spécifique Observatoires Virtuels) in charge of promoting VO projects
  - ASSNA (Action Spécifique pour la Simulation Numérique en Astrophysique) responsible for promoting numerical simulations
  - Interface problem!
VO-France organization

- Creation of VO-France decided during INSU prospective workshop (2003), ASSNA just before (2002)
- VO-France Scientific Committee: 1 representative of each PN, AS, GdR… Led by F. Genova.
VO-France
Scientific Committee

- Françoise Genova (CDS, Présidente)
- Marie-Noëlle Bouin (ENSG/IGN, GDR G2)
- Sylviane Chaintreuil (LESIA)
- Alain Cheli (LAOG, ASHRA, GDR JMMC)
- Jean-Louis Cournil (CNES)
- André Csillaghy (Département d’Informatique Haute-Ecole Spécialisée (HES) de la Suisse du Nord-Ouest)
- Jacques Delabrouille (PCC- Collège de France, Programme Astroparticules)
- Didier Despois (Observatoire de Bordeaux, GDR Exobiologie)
- Marie-Lise Dubernet (LERMA, PCMI)
- Chantal Lathuillere (LPJ, PMST)
- Nicolas Mangold (Orsay-Terre, PNP)
- Yannick Meiller (IAP, PNC)
- Felix Mirabel (SAP, PCHR)
- Philippe Prugniel (CEAL, PNG)
- Caroline Soubiran (Observatoire de Bordeaux, PNPS)
- Pierre Valiron (LAOG)
- Hervé Wozniak (CEAL, ASSNA)
VO-France organization

- Creation of VO-France decided during INSU prospective workshop (2003), ASSNA just before (2002)
- VO-France Scientific Council: 1 representative of each PN, AS, GdR… Led by F. Genova.
- VO-France helps to organize the French community:
  - Census of ongoing or planned projects
  - Funding of:
    - key-persons to IVOA Interop and other international VO meetings
    - VO-France working groups meeting
    - Workshops on tools
  - No funding of:
    - Hardware, databases, manpower, etc.
    - \( \Rightarrow \) funds from ANR, INSU, PNs, GdR or others AS (ASSNA?)…
VO-France working groups

- Spectral data (Ph. Prugniel)
- Workflows (A. Schaaf)
- Images (E. Slezak)
- Theory (H. Wozniak)
  - Presentation of VO-France at ASSNA meeting (December 2003)
  - First WG meeting just after the founding VO-France workshop (4-6 April 2005)
  - Parallel session during Obernai winter school (5-7 November 2005)
  - Today: first joined ASSNA-ASOV workshop dedicated to TVO
ASSNA/VO-France interface

• Need to explain what is [not] Virtual Observatory
  • What’s that gadget for?

• Need to understand numerical simulations/codes specificity
  • Why particle simulations cannot be access from Simple X Access Protocol already defined?

• Need to see how a VO-compliant theoretical service could run and help to make science

• Make an effort to adapt each others to different languages!
Wednesday

- General presentations (Chair : H. Wozniak)
  - 10h  Présentation  H. Wozniak
  - 10h20  Theory in the VO: the IVOA approach  G. Lemson
  - 10h50  UCD, sémantique, etc.  S. Derrière
  - 11h20  Workflow  A. Schaaf
- 11h50 --- Discussion : do we need the VO to make available simulation data/codes?
- 13h --- Déjeuner
- Progress in ‘virtualization of theoretical data/codes’ (Chair : S. Derrière)
  - 14h00  Portail numérique de l'Observatoire / PDR  F. Le Petit
  - 14h25  BASECOL / ASAP  M.-L. Dubernet
  - 14h50  Modeles de Besancon  A. Robin/B. Debray
  - 15h15  Galics  B. Guiderdoni
  - 15h40 PAUSE
  - 16h10  Theory in GAVO: Cosmological simulations in a database  G. Lemson
  - 16h35  HORIZON  H. Wozniak
  - 17h00  Modèles pour exoplanètes  F. Roy
- 17h10 --- Discussion : return/share in experiences
  - Which difficulties when developing new services?
  - How?
Thursday

- Future possible services/data in the VO (Chair: F. Le Petit)
  - 9h: Lorene Ph. Grandclément
  - 9h20: Modèles Stellaires A. Palcios
  - 9h40: MHD R. Grappin
  - 10h00: Titan & Arty L. Chevallier/A. Gonçalves
  - 10h15: PAUSE
  - 10h45: Models de chocs MHD de coeurs denses P. Hennebelle
- 11h30: Discussion
  - Peut-on tout faire avec le VO?
- 13h: Déjeuner
- 14h ACTIONS ET REFLEXIONS POUR LE FUTUR
  - Conditions and constraints on developing services or making numerical data available to the community
    - Standards / protocols
    - manpower / funding
  - comment structurer les efforts de développement en matière d’OV théorique?