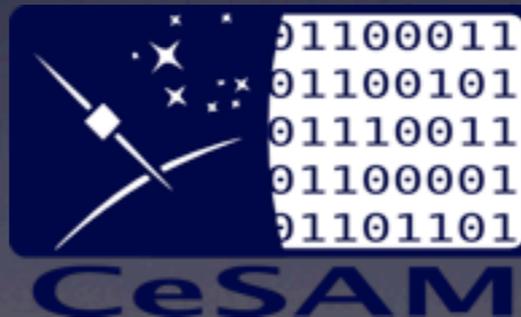


Activités OV au CeSAM

J.-C. Meunier

- F. Agneray (CoRoT)
- P.-Y. Chabaud
- T. Fenouillet
- S. Gimenez (COSMOS)
- G. Leleu (FabryPerot)
- C. Moreau
- Y. Roehly (Herschel)
- C. Surace





CeSAM

<http://lam.oamp.fr/cesam/>

- **Centre de données Astrophysiques de Marseille**
 - Infrastructure
 - Traitement d'Images
 - Pipeline
 - Systèmes d'information
 - Observatoire Virtuel
 - Simulation numériques (nouveau 2011)
- 8 ITA titulaires, 9 CDDs
- une implication forte des scientifiques
 - un responsable scientifique multi-projets
 - un responsable par projet

CeSAM Centre de données Astrophysiques de Marseille	
Responsable	C. Surace
Responsable scientifique	V. Le Brun
Assistante Projets	N. Garcia
Infrastructure	Resp - T. Fenouillet
Calcul scientifique Simulation numériques	Resp - J.C. Lambert S. Rodionov
Calcul Scientifique Traitement d'image	Resp - D. Vibert A. Uebaria S. Conseil (CDD - ANR) B. Gardes (CDD - CNES) C. Leleu (CDD - CNES)
Developpement d'Applications Pipeline	Resp - C. Surace P.Y. Chabaud D. Benielli (CDD - CNES) A.L. Mealler (CDD - CNES)
Systèmes d'Information Observatoire Virtuel	Resp Systeme Information: C. Moreau F. Agneray (CDD - CNES) S. Gimenez (CDD - UI) Y. Roehly (CDD CNES) Resp - Observatoire Virtuel J.C. Meunier N. Apostolakis (CDD - UI)



SI compatibles OV et Services

<http://cesam.oamp.fr/cesamsi/data.php>

- **Cosmos et Galaxie**

- VVDS (V. Le Brun)
- HST-Cosmos (J.P. Kneib)
- zCosmos (L. Tasca)
- MACS (J.P. Kneib)
- Xmm-Lss (V. Le Brun, C. Adami)
- Herschel - Sag1 (V. Buat)
- Herschel - Sag2 (A. Boselli)
- FabryPerot (M. Marcelin, P. Amram)
- GALEX (B. Milliard)

- **Exo planètes**

- CoRoT EXODAT (M. Deleuil)
- SPHERE (C. Moutou)

- **ConeSearch**

- **SSA**

- **accès direct**

- applet Aladin, Topcat
- glufile Aladin
- URL restful



Les Systèmes d'Information

<http://cesam.oamp.fr/cesamsi/data.php>

- 18 Bases de données accessibles
- 10 bases publiques

CeSAM Centre de données Astrophysique de Marseille

Home page
Data
Team
Publications

NEWS

The Data

COSMOLOGY, PHYSIC & EVOLUTION OF GALAXIES

Project	Scientist Manager	Instrument	Nature	Download Data	Public Access	Private Access
YDS	V. Le Brun	VLT/VIMOS	VI	DOWNLOAD		
HST-COSMOS	J.P. Kneib L. Tasca	Hubble, Spitzer, GALEX, XMM, Chandra, Subaru, VLA, ESO-VLT, UKIRT, NOAO, CFHT,...	VI	DOWNLOAD		
HeDaM/HerMES	V. Buat	HERSCHEL	IR	DOWNLOAD		
COMA	C. Adami	CFHT2K	VI	DOWNLOAD		
ABELL496	C. Adami	MegaPrime/MegaCam	VI	DOWNLOAD		
Fabry_Perot	P. Amram M. Marcelin	Fabry-Perot interferometer	VI			
DAETIFADAS	C. Adami	HST-Archives	VI			
YDS	L. Tasca	VLT/VIMOS				
ULTRA-VISTA	L. Tasca	VISTA	IR			
zCOSMOS	L. Tasca	VLT/VIMOS				
YDS	V. Le Brun	VLT/VIMOS				



VVDS

<http://cesam.oamp.fr/vvdsproject/>

- Home
- People & places
- The VVDS
- Publications
- Image gallery
- Media reports
- Instrumentation
- Other links

- Data Products (public)
- Data Products (private)



VVDS

Contact us

Survey	Dataset name	Last update	Full catalogue	Images	Full dataset
WIDE	VVDS-F0226-04	(Sept 2009)	V ₀ AS CII -		
	VVDS-F1003+01	(Sept 2009)	V ₀ AS CII		
	VVDS-F1400+05	(Sept 2009)	V ₀ AS CII		
	VVDS-F2217+00	(Sept 2009)	V ₀ AS CII		
DEEP	VVDS-F0226-04	(Sept 2009)	V ₀ AS CII		
	VVDS-CDFS	(Mars 2004)	V ₀ AS CII		

- Extraction VOTable

```

<?xml version="1.0" encoding="UTF-8"?>
<VOTABLE xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.ivoa.net/xml/VOTable/v1.1" xsi:schem
<DESCRIPTION>ASTROPHYSIC DATA CENTER IN MARSEILLE</DESCRIPTION>
<DEFINITIONS>
<COOSYS ID="J2000" system="eq_FKS" equinox="J2000"/>
</DEFINITIONS>
<RESOURCE ID="CESAM" name="CESAM">
<TABLE ID="vvds" name="vvds">
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<FIELD name="ALPHA_J2000" ucd="pos.eq.ra;meta.main" datatype="double" utype="" size="11" unit="h:m:s"><DESCRIPTION>Ri
<FIELD name="DELTA_J2000" ucd="pos.eq.dec;meta.main" datatype="double" utype="" size="11" unit="d:m:s"><DESCRIPTION>De
<FIELD name="Z" ucd="src.redshift" datatype="float" utype="" size="8" unit=""><DESCRIPTION>Spectroscopic redshift</DES
<FIELD name="ZFLAGS" ucd="meta.code.qual;src.redshift" datatype="int" utype="" size="3" unit=""><DESCRIPTION>Redshift
<FIELD name="SPMASK_OBS" ucd="" datatype="char" utype="" arraysize="18" unit=""><DESCRIPTION>Pointing</DESCRIPTION>/I
<FIELD name="MAG_AUTO_U" ucd="phot.mag;em.opt.U" datatype="float" utype="" size="6" unit="mag"><DESCRIPTION>Uso magnit
<FIELD name="MAGERR_AUTO_U" ucd="stat.error;phot.mag;em.opt.U" datatype="float" utype="" size="6" unit="mag"><DESCRIP
<FIELD name="MAG_AUTO_B" ucd="phot.mag;em.opt.B" datatype="float" utype="" size="6" unit="mag"><DESCRIPTION>B magnitud
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<FIELD name="MAGERR_AUTO_V" ucd="stat.error;phot.mag;em.opt.V" datatype="float" utype="" size="6" unit="mag"><DESCRIP
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<FIELD name="MAG_AUTO_I" ucd="phot.mag;em.opt.I" datatype="float" utype="" size="6" unit="mag"><DESCRIPTION>I magnitud
<FIELD name="MAGERR_AUTO_I" ucd="stat.error;phot.mag;em.opt.I" datatype="float" utype="" size="6" unit="mag"><DESCRIP
<FIELD name="MAG_AUTO_J" ucd="phot.mag;em.opt.J" datatype="float" utype="" size="6" unit="mag"><DESCRIPTION>J magnitud
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<FIELD name="MAG_AUTO_K" ucd="phot.mag;em.opt.K" datatype="float" utype="" size="6" unit="mag"><DESCRIPTION>K magnitud
<FIELD name="MAGERR_AUTO_K" ucd="stat.error;phot.mag;em.opt.K" datatype="float" utype="" size="6" unit="mag"><DESCRIP
</DATA>
<TABLEDATA>
<TR><TD>120456809</TD><TD>34.9667252</TD><TD>-4.6172171</TD><TD>-99.9</TD><TD>-99</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD>
<TR><TD>120456898</TD><TD>34.7852813</TD><TD>-4.617696</TD><TD>-99.9</TD><TD>-99</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD>
<TR><TD>120456122</TD><TD>34.9641877</TD><TD>-4.6154827</TD><TD>-99.9</TD><TD>-99</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD>
<TR><TD>120456126</TD><TD>34.8872998</TD><TD>-4.6169337</TD><TD>-99.9</TD><TD>-99</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD><TD>-99.9</TD>
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</TABLEDATA>

```



Hermes

<http://hedam.oamp.fr/HerMES/>

- Web-SAMP



The screenshot shows the HeDaM web interface with a table of data. A 'SAMP Connection' dialog box is overlaid on the table, providing instructions for connecting to a SAMP hub. The dialog box contains the following text:

You must have a SAMP hub running on your computer before clicking on this button. Please read [below](#) to know how to proceed.

Connect to the hub

Also, do not forget to [disconnect](#) from the hub before leaving HeDaM.

SAMP

The [Simple Application Messaging Protocol](#) allows astrophysical software to interoperate and to exchange data through a hub. Using [WebSampConnector](#), HeDaM can broadcast catalogues and maps directly to, for instance, [Topcat](#) or [Aladin](#).

How to run a hub

The easiest way to run a SAMP hub on your computer is to use the one integrated into Aladin or Topcat. If you use Aladin, when you launch it, it will automatically launch its own hub and you will be able



EXODAT

<http://cesam.oamp.fr/exodat/>



Exodat

Home page
Contacts
Links
Acknowledgement

Data quick access
Data search by criteria

Web services

Data quick access

Connect website to the hub

Retrieve CoRoT star

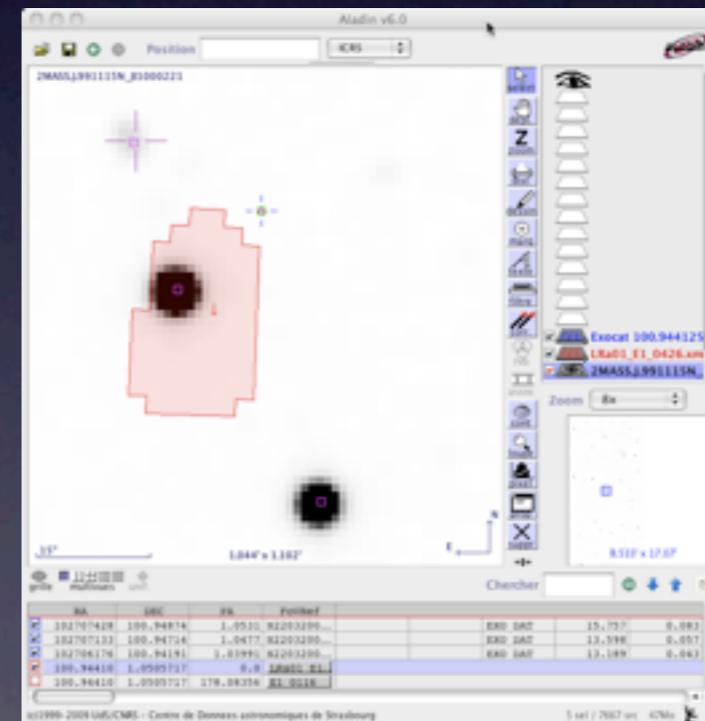
Search by CoRoT id
Corot id: Search

Search by Target id
Run id: Corot id: Win id: Search

Retrieve CoRoT runs

Run id	Science (Targets only)		Science (Targets & background)		Prog. (Informations about observations)	
	Files	Actions	Files	Actions	Files	Actions
SRo01						
SRo01						
LRo01						
LRo01						
SRo01						
LRo02						
SRo02						

- Visualisation avec Aladin



- Footprint
 - accès aux templates CoRoT par identifiant



EXODAT

WebServices

Web services

Exodat web services

Retrieve CoRoT-id

Run id * : Cdd id * : Win id * :

Description :

- Return CoRoT-id come

Input parameters :

- Runid : ID of run (**mandatory**)
- Codid : ID of ood [E1 or E2]
- Winid : ID of window [1 or 2]

Example :

- <http://oesam.oamp.fr/>

Test CoRoT-id existence

Corot id * :

Description :

- Return True if the CoRoT

Input parameter :

- CoRoT-id : CoRoT-id to

Example :

- <http://oesam.oamp.fr/>

Retrieve data for one CoRoT-id

Catalog * : Corot id * : CSV VOTABLE

Description :

- Return data from specified catalog for one CoRoT-id

Input parameters :

- Catalog name : name of catalogue (?) (**mandatory**)
- CoRoT-id : CoRoT-id to retrieve (**mandatory**)
- Format : output format (by default csv)

Examples :

- <http://oesam.oamp.fr/exoservices/exodatquery/get/data/observations/102876870>
- http://oesam.oamp.fr/exoservices/exodatquery/get/data/exo_cat/102876870?format=votable

Retrieve run data by target id

Catalog * : Run id * : Cdd id : Win id : CSV VOTABLE

Description :

- Return data from specified catalog for whole run

Input parameters :

- Catalog name : name of catalogue (?) (**mandatory**)
- Runid : ID of run (**mandatory**)
- Codid : ID of CCD [E1 or E2] (output limited for one CCD)
- Winid : ID of window (output limited for one window)
- Format : output format (default csv)

Examples :

- <http://oesam.oamp.fr/exoservices/query/get/run/data/observations/rc07?format=votable>
- <http://oesam.oamp.fr/exoservices/query/get/run/data/observations/ra01/e2?format=votable>
- <http://oesam.oamp.fr/exoservices/query/get/run/data/observations/ra01/e1/1000>

Retrieve metadata catalog

Catalog * :

Description :

- Return metadata for specified catalog (csv format)

Input parameters :

- Catalog name : name of catalogue (?) (**mandatory**)

Example :

- http://oesam.oamp.fr/exoservices/exodatquery/get/metadata/exo_cat

Retrieve CoRoT star

Search by CoRoT-id

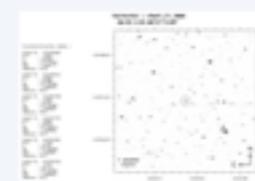
Corot id :

Search by Target-id

Run id : Cod id : Win id :

COROT-ID : 102762433

Informations about star



Coordinates

Re & dec [deg]	101.26373 -0.85439
Re & dec [h:m:s]	06:45:03.295 -0:51:15.804

Catalogs references

USNO-B1	0891-0104576
TWOHASS	06430330-0051158
CHC14	
DRNS	2064903.2-005115
USNO-A2	0825-03100725
UCAC2	31465645
TYCHO2	

Magnitudes

U	
B	13.849
V	13.181
R	12.923
I	12.492
J	11.925
H	11.595
K	11.522
$\alpha(B-V)$	0.45
Temperature color	5530

Spectral classification

Spectral type (SED)	A5
Luminosity class (SED)	V
Spectral type (ISO)	G4
Luminosity class (ISO)	V

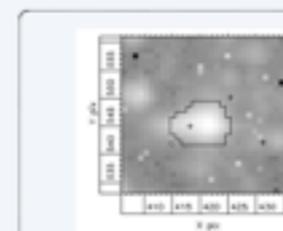
Contamination LD

Contamination rate	1.832E-4
Numbers of contaminants	27

Neighborhood

Contaminant 1	102763130
Contaminant 2	102762355
Contaminant 3	102762764
Contaminant 4	102760738
Contaminant 5	102760401
Contaminant 6	102764695

Informations about observation(s)



IRa01_E1_1000

Run ID	IRa01
Cdd ID	E1
Win ID	1000
chromatic mode	COLOR
Template version	5/1002
Template ID	130
X	418.241
Y	544.994

Contamination L1

Contamination rate	0.025
Contamination error	0.001

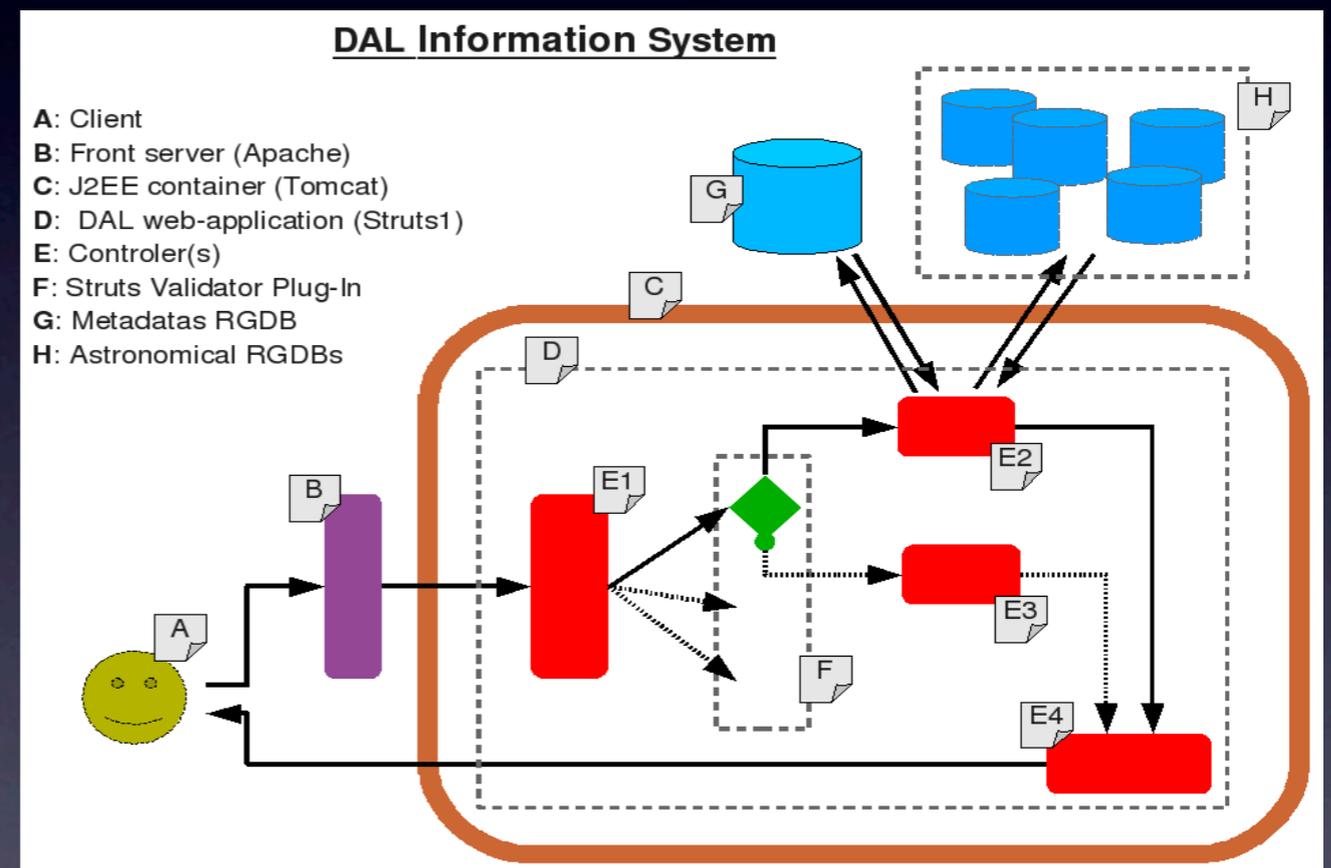
Architecture OV

- Tout projet bénéficie de l'architecture OV CeSAM

- services DAL (cf.ASOV-F 2009)

- Simple Cone Search
- SIA (pg_sphere)
- SSA

- BD de métadonnées
- TAP à venir



- services en cours d'enregistrement à EURO VO



Enregistrement des Services

- Authority
 - ivo://lam.cesam
- Registry
 - EURO-VO
- Projets
 - VVDS
 - Exodat
 - Fabry-Perot

Centre de Donnees d Astrophysiques de Marseille [CeSAM] [XML | EDIT | CLONE]
 IVOA Identifier: ivo://lam.cesam/cesam [Organisation]
 the Centre de Donnees d Astrophysique de Marseille (CeSAM) from Laboratoire d'astrophysique de Marseille (LAM) from quality controlled data via web based applications, tools, pipeline development, etc.
 Published by: CeSAM VO team on the 2012-01-11T11:04:05Z and last updated on the 2012-01-11T11:04:05Z

Exocat catalog from CoRoT Exodat public archive [exocat] [CatalogService] [ConeSearch]
 IVOA Identifier: ivo://lam.cesam/cs/exocat [CatalogService] [ConeSearch]
 Exocat catalog from Exodat CoRoT Information System
 Published by: CeSAM VO team on the 2012-01-11T13:08:56Z and last updated on the 2012-01-11T13:16:57Z

OBS_CAT catalog from CoRoT Exodat public archive [obscat] [CHECK | XML | EDIT | CLONE]
 IVOA Identifier: ivo://lam.cesam/cs/obscat [CatalogService] [ConeSearch]
 OBS_CAT catalog from Exodat CoRoT Information System. This catalogue contains stars observed for the preparation of the CoRoT mission.
 Published by: CeSAM VO team on the 2012-01-11T13:25:03Z and last updated on the 2012-01-11T13:28:16Z

CENCOS-VVDS_DEEP SSA (VVDS Deep survey) [CENCOS-VVDS_DEEP] [CHECK | XML | EDIT | CLONE]
 IVOA Identifier: ivo://lam.cesam/ssa/cencos-vvds_deep [CatalogService] [SimpleSpectralAccess]
 This worldwide public catalog releases objects from the VVDS-F02 Deep field with IAB between 17.5 and 24, and with spectroscopic redshift between 0 and 5. The observations, data processing and redshift measurements have been conducted by the French-Italian team of the VIMOS VLT Deep Survey (VVDS). The papers relevant to this release are Le Fevre et al. (2005 A&A 439, 845) for the spectroscopic survey description and baseline properties, Le Brun et al. (2007 in preparation) for the information system, Le Fevre et al. (2004 A&A 417, 51) for the photometry, McCracken et al. (2003 A&A 410, 17), Iovino et al. (2005 A&A 442, 423) for J&K photometry, Radovich et al. (2004, A&A 417, 51) for U band photometry. Further publications related to these data can be found under <http://www.oamp.fr/vimos/publications.htm>
 Published by: Laboratoire d'Astrophysique de Marseille - Departement d'Informatique scientifique on the 2008-01-23T04:17:21Z and last updated on the 2012-01-12T14:19:19Z

CENCOS-VVDS_DEEP ConeSearch (VVDS Deep survey) [CENCOS-VVDS_DEEP] [CHECK | XML | EDIT | CLONE]
 IVOA Identifier: ivo://lam.cesam/cs/cencos-vvds_deep [CatalogService] [ConeSearch]
 This worldwide public catalog releases objects from the VVDS-F02 Deep field with IAB between 17.5 and 24, and with spectroscopic redshift between 0 and 5. The observations, data processing and redshift measurements have been conducted by the French-Italian team of the VIMOS VLT Deep Survey (VVDS). The papers relevant to this release are Le Fevre et al. (2005 A&A 439, 845) for the spectroscopic survey description and baseline properties, Le Brun et al. (2007 in preparation) for the information system, Le Fevre et al. (2004 A&A 417, 51) for the photometry, McCracken et al. (2003 A&A 410, 17), Iovino et al. (2005 A&A 442, 423) for J&K photometry, Radovich et al. (2004, A&A 417, 51) for U band photometry. Further publications related to these data can be found under <http://www.oamp.fr/vimos/publications.htm>
 Published by: CeSAM VO team on the 2012-01-12T14:52:33Z and last updated on the 2012-01-12T14:55:44Z

The keyword search form
 keywords ivo://lam.cesam
 AND OR
 Search

1 - 6



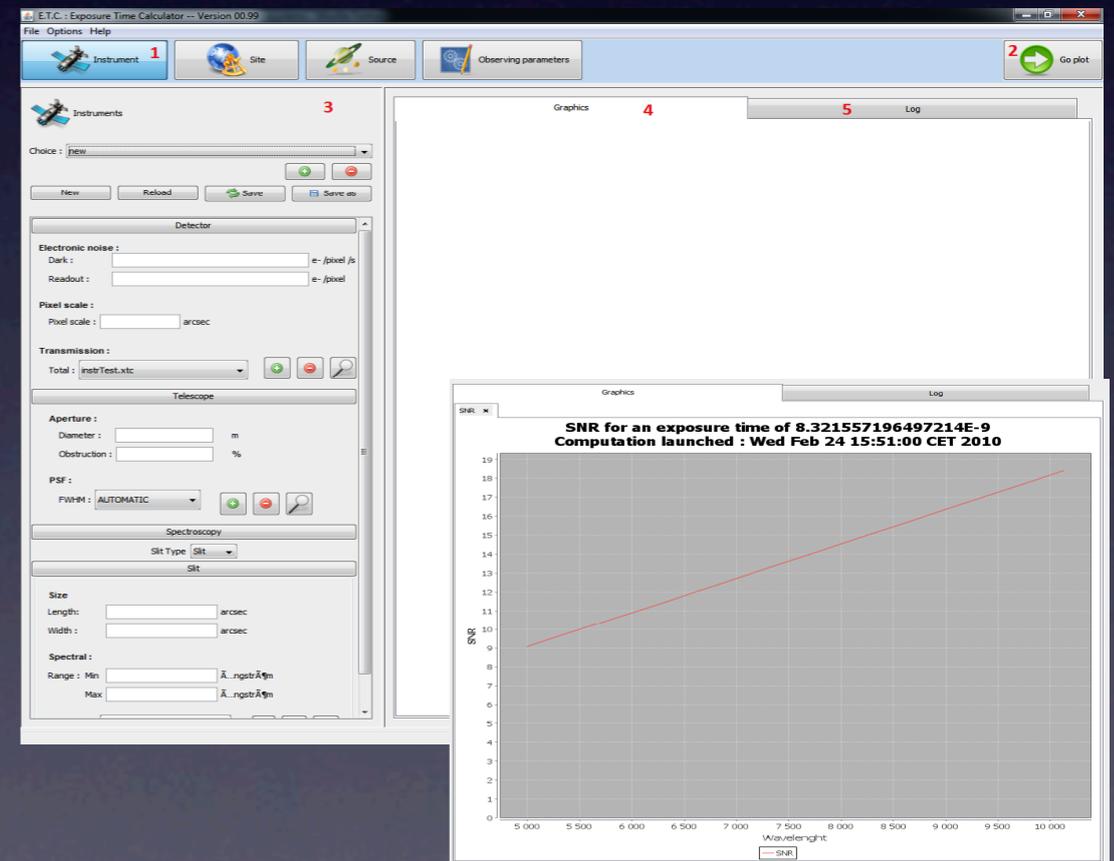
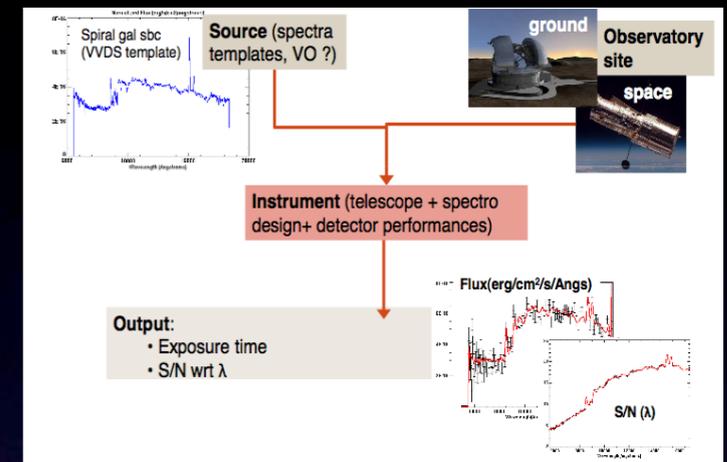
Applications

- ETC-42: Exposure Time Calculator

- <http://projects.oamp.fr/projects/etc>

- voir présentation N.Apostolakos
- but : estimer le temps d'exposition
- client SSA
- export VOTable

- focus-démo ADASS
- Workshop fin Janvier
- prochainement publié VO-APPs





Publications 2011 (OV)

- Surace (2011) The Virtual Observatory Data, Standards and Tools a technical - user point of view 2011, IAU Symposium, 277, 224
- Laureijs, Amiaux et al. (2011) Euclid Definition Study Report 2011, arXiv:1110.3193
- Elbaz, Dickinson et al. (2011) GOODS-Herschel: an infrared main sequence for star-forming galaxies 2011, \aap, 533, A119
- Surace, Chabaud et al. (2011) ETC-42: A VO Compliant Exposure Time Calculator 2011, Astronomical Data Analysis Software and Systems XX, 442, 559
- Granet, Paioro et al. (2011) FASE : Future Astronomical Software Environment: How to Include Tools and Systems into the FASE Environment 2011, Astronomical Data Analysis Software and Systems XX, 442, 485
- Roehly, Buat et al. (2011) HeDaM: The Herschel Database in Marseille 2011, Astronomical Data Analysis Software and Systems XX, 442, 25
- Moreau, Gimenez et al. (2011) The COSMOS Information Systems at LAM 2011, Astronomical Data Analysis Software and Systems XX, 442, 21
- Elbaz, Dickinson et al. (2011) GOODS-Herschel: an infrared main sequence for star-forming galaxies 2011, arXiv:1105.2537



2012 - Perspectives

- Registry et recherche de datasets
 - Enregistrement en cours, fin premier trimestre 2012
 - Recherche ConeSearch sur les datasets ses SI du Cesam
- Nouvelles implémentations DAL
 - SIA
 - TAP
- Développement projets
 - EUCLID (SAMP, SSA, SIA)
 - SVOM (VOEvent)
 - Herschel- HIGAL
 - GALEX-EM
- Outils : ETC-42
 - Liens avec Aladin
 - Characterisation