



IVOA Interop

ESAC, Madrid 18-23 May 2014



IVOA May 2014 Interop - Welcome and Logistics

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European Space Astronomy Centre (ESAC)

19-23 May 014



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**Welcome
to ESAC !**



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ESAC: History and Current Activities



1. 1978: Villafranca Satellite Tracking Station, VilSpa,
2. 1970s, 1980s, 1990s: Support astronomy missions,
3. Early 2000s: Expansion to planetary missions,
4. 2008: VilSpa renamed ESAC.
5. ESAC activities (~350 people) now include:
 - a. **ESA Science Operations Centres for astronomy and planetary missions,**
 - b. **ESA Science Archives and VO**
 - c. Satellite Communications & Tracking,
 - d. EO SMOS Data Processing Ground Segment,
 - e. Space Situational Awareness (SSA),
 - f. Communication and Education,
 - g. **Centro de Astrobiología (CAB ESAC) Lab and SVO**





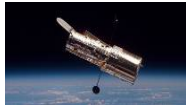


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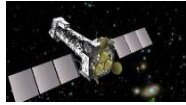
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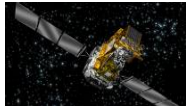
ESA Astronomy Missions in Operations and Development



1990 Hubble Space Telescope (ESA SciOps at STScI)



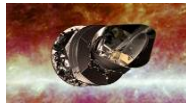
1999 XMM-Newton



2002 INTEGRAL



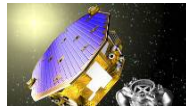
2009 Herschel Space Observatory



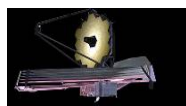
2009 Planck



2013 Gaia



2015 LISA Pathfinder



2018 James Webb Space Telescope (ESA SciOps at STScI)



2020 Euclid



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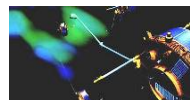
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ESA Solar System Missions in Operations and Development



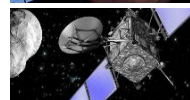
1995 Solar and Heliospheric Observatory (SOHO)



2000 Cluster



2003 Mars Express



2004 Rosetta



2005 Venus Express



2006 Hinode (Japanese-led Solar observatory)



2009 PROBA-2



2015 BepiColombo



2017 Solar Orbiter



2022 JUICE



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ESAC Science Archives and VO Team



Science Archives at ESAC

The European Space Astronomy Centre (ESAC) hosts most of ESA astronomy and planetary missions' archives. This currently includes:

- Cluster Science Archive → Cluster Mission
- ESA Hubble Science Archive → HST Mission
- EXOSAT Science Archive → EXOSAT Mission
- Herschel Science Archive → Herschel Mission
- ISO Data Archive → ISO Mission
- Planck Legacy Archive → Planck Mission
- ESA's Planetary Science Archive → (regrouping data from Rosetta, Mars Express, Venus Express, Huygens, Smart-1 and Giotto for the time being)
- SOHO Science Archive → SOHO Mission
- Ulysses Final Archive → Ulysses Mission
- XMM-Newton Science Archive → XMM-Newton Mission

In the future Gaia, BepiColombo, Solar Orbiter and Euclid will also have their archives located at ESAC.

Within the Science Operations Department of ESA's Directorate of Science and Robotic Exploration, all these archives are designed, developed, maintained and operated by the Science Archives Team at ESAC, using common, modular and flexible 3-tier architecture, where the data storage is clearly separated from the data presentation. This ensures automatic operations as well as long-term maintainability and evolution. Through easy-to-use graphical user interfaces or through powerful machine and Virtual Observatory interfaces, they provide instant access to ESA scientific mission data for the science operations centres at ESAC and to the scientific community worldwide.

Observations from ISO and XMM-Newton can also be seen from Google Sky by downloading the following KML file.

Latest News

- 11th Nov 2013: The Cluster Science Archive (CSA) version 1.0 is released! The CSA is the ESA long-term archive of the Cluster mission and supersedes the CAA as the public interface to the Cluster mission archive.
- 18th Sept 2013: The Herschel Science Archive version 5.0 is released! Highlights include providing access to User Provided Data Products (UPDPs).
- 23rd July 2013: The XMM-Newton Science Archive v8.0 is released! Highlights include a new web-based interface and the 3XMMi catalogue.
- 21st March 2013: The Planck 2013 results are now available to the world-wide community through the Planck Legacy Archive version 1.01

- 15 archives in operations
 - Astronomy,
 - Planetary,
 - Solar heliospherics
- 5 more archives in development
- VO Services for ESA science archives
- Euro-VO Registry
- VOSpec



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CAB and SVO



CENTRO DE ASTROBIOLOGÍA
ASOCIADO AL NASA ASTROBIOLOGY INSTITUTE



CSIC





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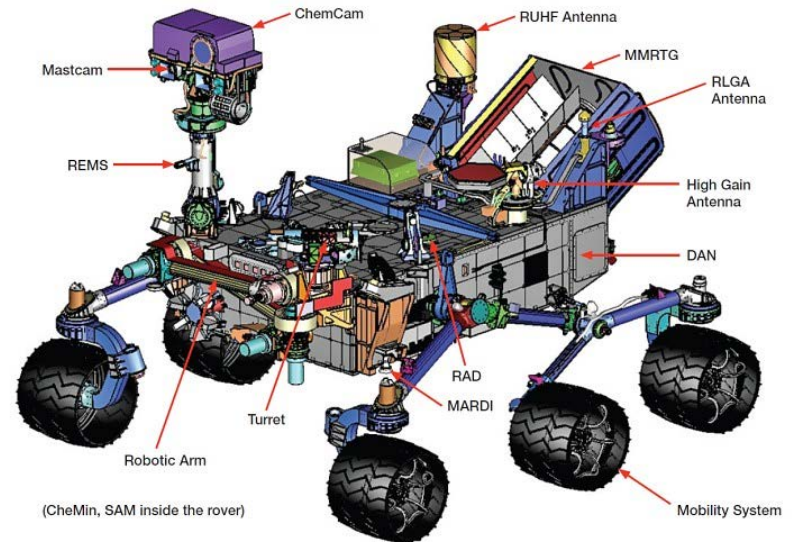
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Planetology and Habitability Department Instrumentation Department





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Astrophysics Department
Molecular Evolution Department





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CAB and SVO

- <http://svo.cab.inta-csic.es>. @ObsVirtEsp



The SVO



The Spanish Virtual Observatory (SVO) officially started in June 2004. Its purpose is to coordinate the VO activities at national level and act as a contact point for the other VO initiatives. The SVO core team is hosted at Centro de Astrobiología (INTA-CSIC).

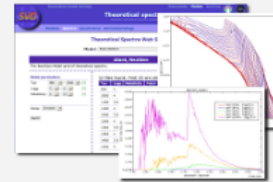
- SVO participants
- VO FAQs

The CAB Scientific Data Centre



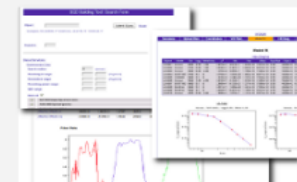
- Calar Alto
- DUNES
- GASPS
- GTC
- OMC
- X-exoplanets
- CMC-15
- Mark-I
- Census of astronomical Data Centres in Spain
- COROT
- DSS-63
- GAUDI
- INES
- Protostars
- ALHAMBRA
- Joan Oró
- Publishing data in the VO

Theoretical Data Server



- Stellar Spectra theoretical models
- Evolutionary Synthesis Models
- Observational templates
- Synthetic Photometry
- Asteroseismology

Services



- VOSA
- VOSED
- TESELA
- Filter Profile Service

VO Science



Data Mining



Education & Outreach



Miscellanea





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- VO-science

A&A 551, A46 (2013)
DOI: [10.1051/0004-6361/201220128](https://doi.org/10.1051/0004-6361/201220128)
© ESO 2013

**Astronomy
&
Astrophysics**

Proper motions of young stars in Chamaeleon

I. A Virtual Observatory study of spectroscopically confirmed members^{*,}**

B. Lopez Martí¹, F. Jimenez Esteban^{1,2,3}, A. Bayo⁴, D. Barrado^{1,5}, E. Solano^{1,2}, and C. Rodrigo^{1,2}



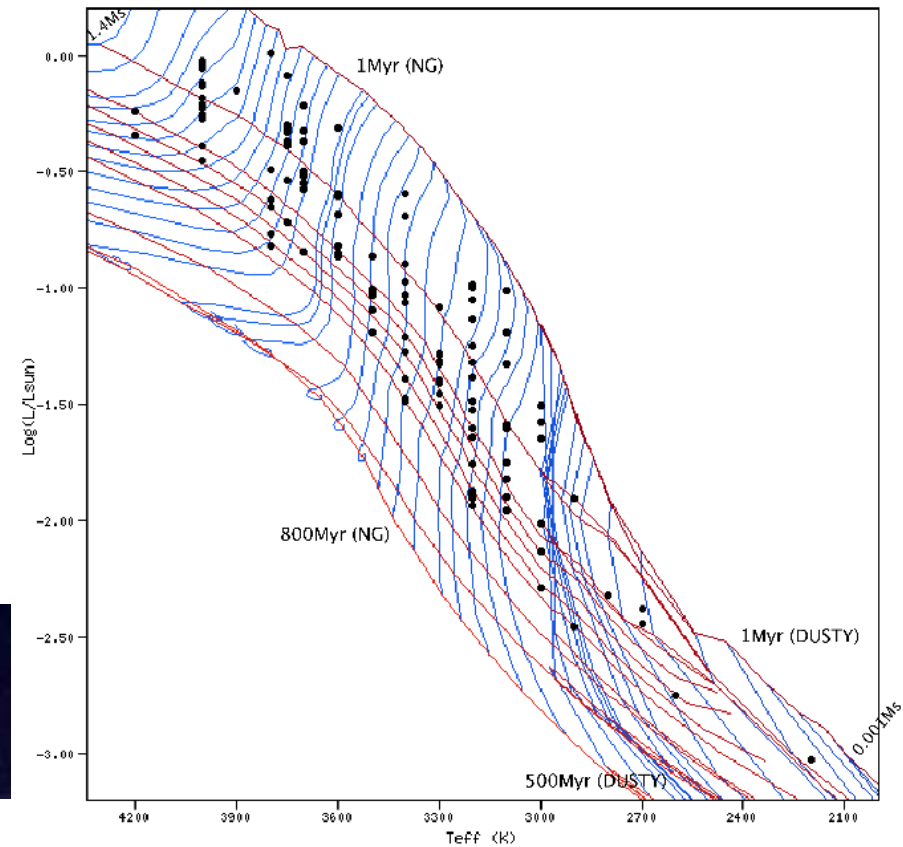
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- Standards and tools





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CAB and SVO

•Education and





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•VO-

The CAB Scientific Data Centre

GTC Archive

Calar Alto Archive

Calar Alto Archive: Search Form

Search by (Obj ID):

Search by (RA):

Search by (DEC):

Search by (Date):

- Calar Alto
- DUNES
- GASPS
- GTC
- OMC
- X-exoplanets
- CMC-15
- Mark-I
- COROT
- DSS-63
- GAUDI
- INES
- Protostars
- ALHAMBRA
- Joan Oró



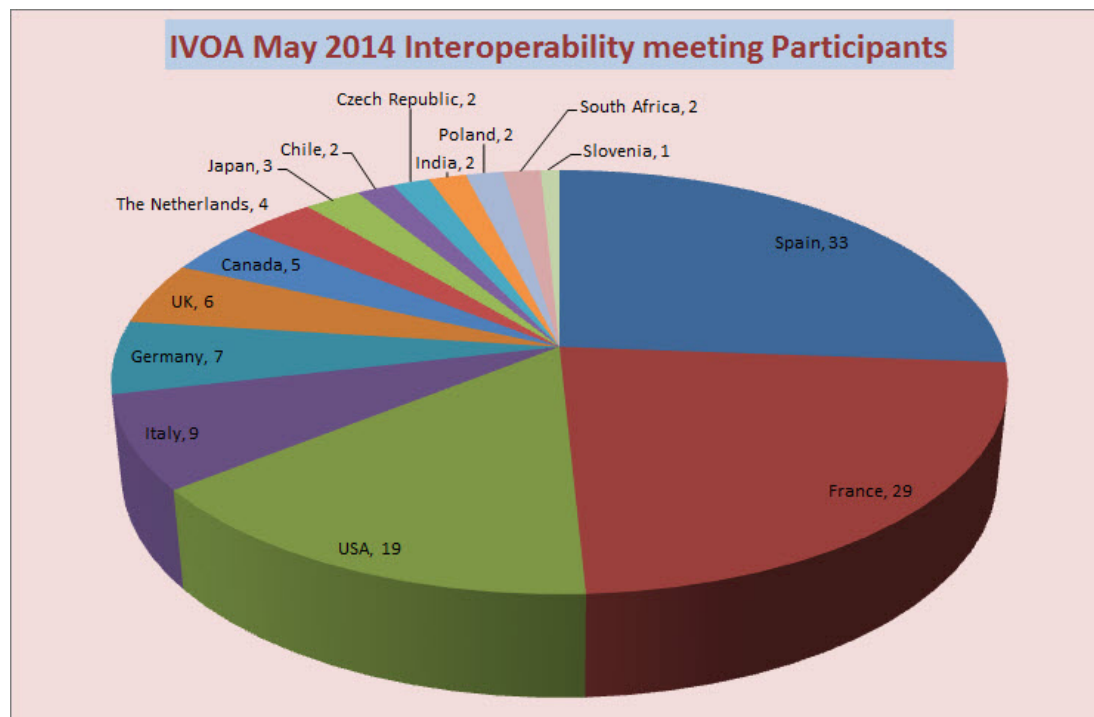


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IVOA May 2014 Interop Meeting Logistics



126 participants
from 15 countries



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Meeting rooms

1. D01 / D02 merged for plenary sessions (Mon-Tue-Fri)
2. D01 / D02 / D52 for splinter sessions (Wed-Thurs)
3. D52 can be used for meetings on the days there are plenary sessions
4. Please use the microphone when you give your presentation during plenaries



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Wifi access

1. SSID : *esa-conference*
2. The IT services allowed for this network profile are:
 - a. HTTP TCP / 80, HTTPS TCP / 443, HTTP TCP / 8080
 - b. SSH TCP / 22
 - c. SMTP TCP / 25
 - d. POP3 TCP / 110, POP3s TCP / 995
 - e. IMAP TCP / 143, IMAPs TCP / 993
 - f. IPSEC UDP / 500, IPSEC UDP / 4500
 - g. OpenVPN UDP / 1194
3. Credentials details sent by email and printed on your badge
 - a. Valid for the entire week



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Lunches on-site

1. At the ESAC canteen : 13h30 – 15:00
2. Fixed price (8€) per lunch including
 - a. 1st course or salad, main course, dessert, bread and 1 drink
 - b. Selection of meat and fish and vegetables
3. Lunch tickets **MUST** be purchased at the registration desk
 - a. During the coffee breaks
 - b. Please buy them all for the full week
4. Menu on meeting web page at:
 - a. http://www.sciops.esa.int/index.php?project=CONF2014&page=IVOA2014_dinner



D building

entrance

canteen



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Meeting Dinner

1. Restaurante Cazorla Taberna Andaluza

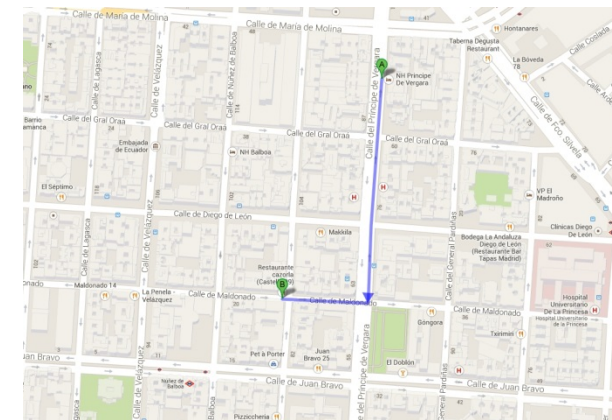
- a. calle Castelló 99, Madrid
- b. Closest metro stop: Núñez de Balboa

2. 5 minutes walk from the hotel

- a. Details on meeting web page
- b. <http://www.sciops.esa.int/SYS/CONF2014/include/IVOA2014/images/restaurant2.jpg>

3. Dinner tickets (45€) to be purchased at the registration desk

4. Menu details soon to be put on line





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Miscellaneous

1. Coffee breaks will be served in the D building hall
2. Meeting picture on Tuesday @ 11:30 on the building terrace
3. (if needed) Taxi requests can be filled in at the registration desk
4. Any questions, ask the LOC
 - a. Alba, Christophe, Deborah, Enrique



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**Enjoy the
Meeting !**