



www.ivoa.net

IVOA NEWSLETTER

December 2008

Subscribe to email notifications of the
IVOA Newsletter



What is the VO?

The Virtual Observatory (VO) aims to provide a research environment that will open up new possibilities for scientific research based on data discovery, efficient data access, and interoperability. The vision is of global astronomy archives connected via the VO to form a multiwavelength digital sky that can be searched, visualized, and analyzed in new and innovative ways. VO projects worldwide working toward this vision are already providing science capabilities with new tools and services. This newsletter, aimed at astronomers, highlights VO tools and technologies for doing astronomy research, recent papers, and upcoming events

What is the IVOA?

The International Virtual Observatory Alliance (IVOA) was formed in June 2002 with a mission to "facilitate the international coordination and collaboration necessary for the development and deployment of the tools, systems, and organizational structures necessary to enable the international utilization of astronomical archives as an integrated and interoperating virtual observatory." The IVOA now comprises 16 VO projects from Armenia, Australia, Canada, China, Europe, France, Germany, Hungary, India, Italy, Japan, Korea, Russia, Spain, the United Kingdom, and the United States. Membership is open to other national and international projects according to the IVOA Guidelines for Participation. You can read more about the IVOA and what we do at <http://www.ivoa.net/pub/info/>.

VO APPLICATIONS HIGHLIGHTS

AstroGrid VO Desktop Suite



This newly released suite includes several interlinked tools including an iTunes-inspired browser, VOExplorer, which allows you to search, filter, save and bookmark your favourite VO resources. You can search for data by position, or run more complex queries where available. AstroRuntime software runs in the background and allows seamless visualization of selected catalogues, images, spectra, and time domain datasets in VO enabled tools. You can also save and share files in VOSpace and invoke remote applications. For those wanting command-line access, all the functionality of the VODesktop is available using python scripting, with IDL to follow.

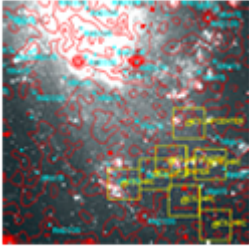
More information: <http://www.astrogrid.org>

VirGO v1.3.1



VirGO is the next generation visual browser for the ESO Science Archive Facility. VirGO provides an easy access to millions of raw frames in a visual and intuitive way. Its main feature is the performance of real-time access and graphical display of a large number of observations by showing instrumental footprints and image previews, and the selection and filtering for subsequent retrieval. It uses the DSS as background images and allows the user to view the sky in a "real-life mode" as seen from the main ESO sites. Data interfaces are based on VO standards, enabling access to images and spectra hosted by other data centers. VirGO can also exchange data with other VO applications through the PLASTIC messaging system. A large fraction of ESO's non proprietary science products are already accessible through VirGO and more are to come, including the data products from the ESO Public Surveys.

More information: <http://archive.eso.org/cms/virgo/>



VO-CLI - Command Line Tools for the VO

VO-CLI is a package of command-line tools that provides familiar unix-like access to VO services while hiding much of the complexity of the underlying VO framework from novice users. These tools can be used from the desktop, in various scripting environments, or in back-end CGI scripting to support web applications, and have the ability to output results in a variety of formats. Another key feature of the package is the ability to optionally use "common" names for both objects and VO resources; these names are resolved internally to sky positions or service URLs. "Power users" will quickly become proficient using the command-line interface; a web interface to the tasks is also available for novice users or those wishing to experiment.

More information: <http://iraf-nvo.noao.edu/vo-cli/>



Large Images in Aladin

The latest version of the Aladin software provided by CDS in Strasbourg now supports use of large images, unlimited by the local computer memory. Other changes include image transparency, automatic scale and orientation adjustment, Russian & traditional Chinese translation, and more. Aladin is an interactive software sky atlas allowing the user to visualize digitized astronomical images, superimpose entries from astronomical catalogues or databases, and interactively access related data and information from the Simbad database, the VizieR service and other archives for all known sources in the field

More information: <http://aladin.u-strasbg.fr/aladin.gml>

SOME RECENT PAPERS ABOUT VO-ENABLED SCIENCE

- VOSA: Virtual Observatory SED Analyzer. An application to the Collinder 69 open cluster Bayo A. et al., 2008, A&A, in press
- Young stars and brown dwarfs surrounding Alnilam (eps Ori) and Mintaka (del Ori) Caballero J.A. & Solano E., 2008, A&A, 485, 931
- SDSSJ124155.33+114003.7 -- a Missing Link Between Compact Elliptical and Ultracompact Dwarf Galaxies Chilingarian I.V. & Mamon G.A., 2008, MNRAS, 385, 83
- Invisible sunspots and rate of solar magnetic flux emergence Dalla S., Fletcher L., Walton, N. A., 2008, A&A, 479, L1
- Fossil Groups in the Sloan Digital Sky Survey Santos W.A., Mendes de Oliveira C., Sodre L. Jr, 2007, AJ, 134, 1551
- Albus 1: A Very Bright White Dwarf Candidate Caballero J.A., Solano E., 2007, ApJ, 665, L151
- Using VO tools to investigate distant radio starbursts hosting obscured AGN in the HDF(N) region Richards A.M.S., Muxlow T.W.B., Beswick, R., et al., 2007, A&A, 472, 805
- Flare productivity of newly-emerged paired and isolated solar active regions Dalla S., Fletcher L., Walton N.A., 2007, A&A, 468, 1103
- eSDO algorithms, data centre and visualization tools Auden E., Toutain T., Zharkov S., 2007, AN, 328, 356

More Ways to Find VO-related Publications

- All ADS links mentioning the "virtual observatory" in the abstract
- All refereed publications mentioning the "virtual observatory" in the abstract

VO CALENDAR

1-3 December 2008: Multi-wavelength Astronomy & VO Workshop: a Euro-VO AIDA Community Workshop

ESAC, Villafranca del Castillo, Spain

The VO is becoming indispensable for accessing and handling the exponentially increasing data volume. The goal of this workshop is to pinpoint the challenges multi-wavelength astronomy will be facing in the coming years and to identify how the unique capabilities intrinsic to the VO concept can meet them.

4-9 January, 2009: 213th American Astronomical Society Meeting

Long Beach, California, USA

The American Astronomical Society (AAS) is the major organization of professional astronomers in North America.

**2-5 March 2009: Second International Workshop on Practical Semantic Astronomy
Glasgow, UK**

This workshop brings together experts from a broad range of disciplines using semantic technologies, alongside practitioners experimenting with these technologies to address current problems in astroinformatics. Currently we are seeking papers for the workshop.

**24-29 May, 2009 IVOA Interoperability Meeting
Strasbourg, France**

The IVOA Interop Meetings are aimed at making significant progress in generating new standards powering the development of the world wide Virtual Observatory initiatives.

**14 June - 5 July 2009: Wide-Fast-Deep Surveys: New Astrophysics Frontier
Aspen, Colorado, USA**

The goal of this workshop is to bring theorists, observers, and computational scientists together to discuss the discovery space of wide-fast-deep surveys, and to develop algorithms and observing strategies that maximize the scientific return of such a program.

**4-8 October 2009: ADASS XIX
Sapporo, Japan**

The Astronomical Data Analysis Software and Systems (ADASS) conference is held each year at a different hosting astronomical institution. The conference provides a forum for scientists and programmers concerned with algorithms, software and software systems employed in the acquisition, reduction, analysis, and dissemination of astronomical data.

International Virtual Observatory Alliance

www.ivoa.net

IVOA Newsletter Editors:

Mark G. Allen
Sarah Emery Bunn
Evanthia Hatziminaoglou
Bob Mann
Thomas. A. McGlynn
Christopher J. Miller
Anita M.S. Richards
Jonathan Tedds
write to the editors

Subscribe to email notifications of the IVOA Newsletter