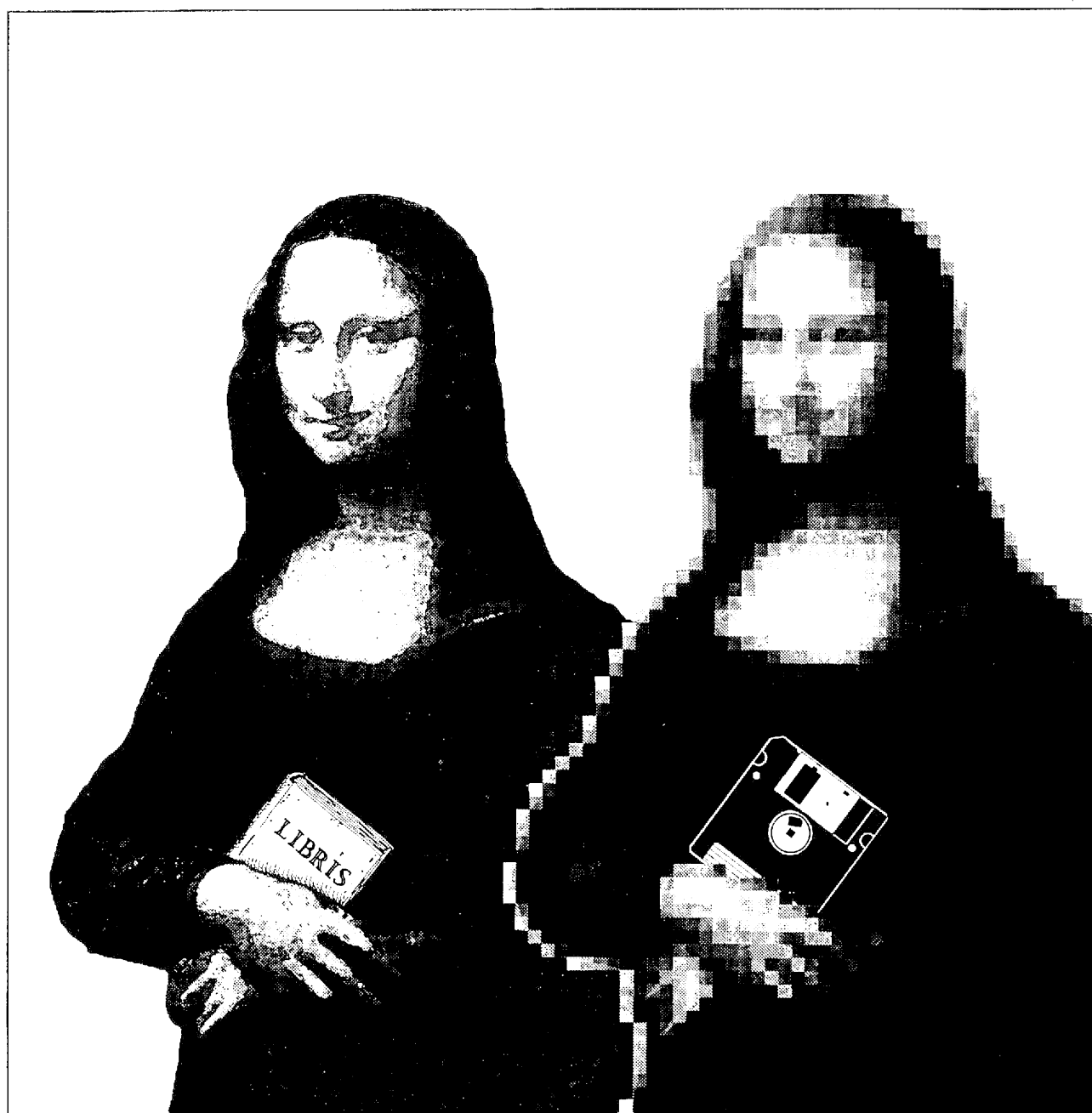


LIBRARY AND  
INFORMATION  
SERVICES IN  
ASTRONOMY II

# LISA III

MAY 10-12 1995, ESO GARCHING, GERMANY



PROGRAMME & ABSTRACTS BOOKLET

# LISA-II Programme

ESO Garching, 10–12 May 1995

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## Contents Include:

- Wednesday, May 10, Tutorials.
  - Thursday, May 11, Presentations – oral, posters.
  - Friday, May 12, Presentations – oral, posters.
  - Posters, May 11–12.
  - Birds of a Feather session, May 12.
  - Meeting and Friends of LISA II Sponsors.
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## Tutorials, Wednesday May 10

Each presentation includes 10 minutes for discussion.

08:30–09:15 – Registration.

09:15–10:05 – **The Internet for Librarians**, Uta Michold, ESO, Germany.

10:05–10:55 – **The World Wide Web: a Web even a Fly would Love**,  
Liz Bryson, CFHT, USA.

10:55–11:15 – Coffee.

11:15–12:05 – **Astronomical data**, Daniel Egret, Strasbourg Observatory, France.

12:05–14:00 – Lunch.

14:00–14:50 – **SIMBAD for Librarians**, Robyn Shobbrook, AAO, Australia and  
Françoise Genova, CDS, Strasbourg, France.

14:50–15:40 – **The Preprint Perplex in the Electronic Age**, Ellen Bouton, NRAO,  
and Sarah Stevens-Rayburn, STScI, USA.

15:40–16:10 – Coffee.

16:10–17:00 – **Starcat, previewing data**, Miguel Albrecht and Benoît Pirenne,  
ESO/ST-ECF, Germany.

# Presentations, Thursday May 11

Each presentation includes 5 minutes for discussion.

08:45–09:00 – Registration (continued).

09:00–09:10 – Introduction and Welcome, Riccardo Giacconi, Director-General, ESO.

09:10–09:50 – **The changing role of librarians – managing new technologies in libraries.**  
(Theme Talk) José-Marie Griffiths, University of Tennessee, USA.

09:50–10:15 – **Astronomical data: a review.**

Daniel Egret, Observatory, Strasbourg, France.

10:15–10:30 – Coffee.

10:30–11:00 – **Networked information systems in astronomy: an overview of tools and standards.**

Jim Fullton, CNIDR, Research Triangle Park, NC, USA.

11:00–11:20 – **Digitization of historical astronomical literature.** Brenda Corbin,  
US Naval Observatory, and Donna Coletti, Center for Astrophysics, USA.

11:20–11:40 – **Integrating astronomical data and information services at the CDS.**

Daniel Egret et al., Strasbourg Observatory, France.

11:40–12:00 – **Computer-based methods for online services and compact storage of data.**

Sergey Vasilyev, Astronomical Observatory, Khavkiv State University, Ukraine.

12:00–12:20 – **Growing importance of conference proceedings in astronomy and astrophysics and its impact on collection development.**

A. Vagiswari and Christina Louis, Indian Institute of Astrophysics, Bangalore, India.

12:20–12:40 – **BRAQUE: A novel powerful search interface to large textual databases.**

J. Brinkmann, ESA/ESRIN, Italy.

12:40–14:10 – Lunch.

## Session on Electronic Publishing.

Chair: Miguel Albrecht.

14:10–14:40 – André Heck, Observatory, Strasbourg, France.

14:40–15:00 – Peter Boyce, AAS, USA.

15:00–15:20 – Michiel Kolman, Elsevier, Amsterdam, The Netherlands.

15:20–15:40 – Coffee.

15:40–16:00 – Evan Owens, University of Chicago Press, USA.

16:00–16:20 – Michael Feith, Springer-Verlag, Germany.

16:20–17:10 – Open Discussion.

17:10–18:10 – **Panel Discussion: Astronomy Libraries in Economically Less-Favored Countries.** Chair: Susanne Laloë, IAP, Paris, France.

18:10–19:10 – **Reception.** ESO Garching.

## **Presentations, Friday May 12**

Each presentation includes 5 minutes of discussion.

09:00–09:30 – **The Astrophysics Science Information and Abstract System's (ASIAS) bibliographic and data services.**

Guenther Eichhorn et al., Center for Astrophysics, Harvard, USA.

09:30–09:50 – **The updating of the bibliography in the SIMBAD database.**

Suzanne Laloë, IAP, France.

09:50–10:10 – **Multivariate data analysis applied to bibliographical information retrieval: SIMBAD quality control.**

Soizick Lesteven, Strasbourg Observatory, France.

10:10–10:30 – **The A&A tables and abstracts: an example of collaboration between data centers and editors.**

James Lequeux, Observatoire de Meudon, Paris, and François Ochsenbein, Strasbourg Observatory, France.

10:30–10:50 – Coffee.

10:50–11:10 – **The role of the CD-ROM in astronomy.**

Kathleen Robertson, Institute of Astronomy Library, Honolulu, USA.

11:10–11:25 – **Resource discovery on the Internet.**

Hans-Martin Adorf, ST-ECF, Garching, Germany.

11:25–11:40 – **Information retrieval tools and techniques.**

Alberto Accomazzi, Fionn Murtagh and Bo Frese Rasmussen, CfA, Cambridge, USA and ST-ECF, Garching, Germany.

11:40–11:55 – **So you thought librarianship was about books!**

Jean Sanderson, Institute of Astronomy, Cambridge, UK.

11:55–12:40 – **The Astronomical Library and the Internet – An Open Discussion.**

Moderator: Helen Knudsen, Caltech, Pasadena, USA.

## ***Birds of a Feather Sessions, Friday May 12***

14:15–15:10 **Digitalization of the Library.**

Animators: Uta Michold, ESO Garching, Germany, and Marlene Cummins, University of Toronto, Canada.

15:10–15:55 **Main site/remote site library operations.**

Animator: Jeanette Regan, Astronomy Library, MSSSO, Weston Creek, Australia (library@mso.anu.edu.au), and Helen Knudsen, Caltech, Pasadena, USA.

15:55–16:15 – Coffee.

16:15–17:00 **UDC 52.**

Animator: Robyn Shobbrook, AAO Library, Epping, Australia, and George Wilkins, Exeter, UK. All interested parties should e-mail either George Wilkins or Robyn Shobbrook if they will join in the discussions in Garching (ESO).

## **Posters, Thursday and Friday May 11–12, Rooms 231/232**

1. **Offering an Astronomical Library on the Internet: the OAT Library.** L. Abrami, A. Balestra, Astronomical Observatory of Trieste.
2. **The Unified Catalogue of Astronomical Italian Libraries (CUBAI) Project.** L. Abrami, A. Balestra, M. Ferrucci, A. Gasparini, Astronomical Observatory Trieste, Astronomical Observatory of Rome and Astronomical Observatory Arcetri.
3. **Library Information Systems at the European Space Agency.** S.G. Ansari, S. Loekken, L. Marie, European Space Agency / ESRIN, and European Space Agency / ESTEC.
4. **WAIS Searching of the Current Contents database.** P. Banholzer and M.E. Grabenstein, NASA Goddard Space Flight Center, Greenbelt, MD.
5. **Instrumentation Manuals On-Line** E. Bryson, CFHT.
6. **A List of Astronomical Meetings Available via Mosaic** E. Bryson, CFHT, and D. Crabtree, DAO/CADC.
7. **Database of VLBI-Imaged Active Galactic Nuclei** V.S. Bychkova, Astro Space Center, Moscow.
8. **Scientific Archives of the Odessa Astronomical Observatory** T.N. Chevalkova, Odessa State University.
9. **The Star\*s Family – Status Report.** A. Heck, Strasbourg Astronomical Observatory.
10. **A Bibliography for Modern Serials.** Huang Bi-kun, Purple Mountain Observatory, Nanjing, China
11. **Astronomical Databases in the XVII–XVIII Centuries: Old Astronomical Books in the Library of Gothard Observatory.** I. Jankovics, J. Horvath and I.J. Vincze, Gothard Observatory.
12. **Economic Impact on a Special Library.** M.E. Jimenez-Fragozo, V. Mata-Acosta, M.A. Moreno-Corral, Observatorio Astronomico Nacional, Mexico.
13. **The Library of the Institute of Theoretical Astronomy of the R.A.S. (1924–1994). History, Present State, Perspectives for Future.** M. Lapteva, Institute for Theoretical Astronomy, St. Petersburg, Russia.
14. **A Short Description of Nice Observatory Historical Library and of the Project for Developing Online Resources.** F. Le Guet Tully, Observatoire de la Cote d'Azur, Nice, France.
15. **F.W.Str lve – the Founder of Pulkovo Observatory.** N. Markova, Pulkovo Observatory.
16. **Scientific Instruments and Their Related Correspondence.** J. McFarland, Armagh Observatory.
17. **The Library of the Pulkovo Observatory.** E. Potter, Pulkovo Observatory.
18. **Acquisitions of the Astronomical Libraries of the Russian Academy of Sciences.** D.A. Ptitsyn, O.B. Dluzhnevskaya, N.A. Pomelnikova, Russian Academy of Sciences, Moscow.
19. **A Uniform Bibliographic Code.** M. Schmitz, G. Helou, P. Dubois, C. LaGue, B. Madore, H.G. Corwin Jr. and S. Lesteven, CDS and IPAC.
20. **The Multi-Lingual Supplement to the Astronomy Thesaurus** R.M. Shobbrook, Anglo-Australian Observatory, Epping NSW, Australia.
21. **S O S for the Astronomy Schedules of the Universal Decimal Classification – UDC 52.** R.M. Shobbrook, Anglo-Australian Observatory, Epping NSW, Australia.
22. **IAU Task Group on Designations and Nomenclature (Commission 5). How**

- librarians can help towards the standardisation process. R.M. Shobbrook, Anglo-Australian Observatory, Epping NSW, Australia.
23. **Classification System and Information Services in the Library of SAO RAS.** G.S. Shvedova, Special Astrophysical Observatory RAS.
  24. **150th Anniversary of Astronomical Observatory Library.** T. Solntseva, Astronomical Observatory of Kyiv University.
  25. **"De Cassini ' l'an 2000": The Paris Observatory Library.** M. Vallet and N. Reymonet, Observatoire de Paris, France.
  26. **Database of Interstellar Methanol Lines.** I.E. Val'ts, Lebedev Physical Institute, Moscow.
  27. **Variations of the impact of astronomical publications versus physics publications** M.-J. Vin, Observatoire de Haute-Provence, France, and Parina Hassanaly, CRRM, Marseille, France.
  28. **A Comparison of the Astronomy and Astrophysics Abstracts (A&AA) and the American Institute of Physics (AIP) Physics and Astronomy Classification Schemes (PACS).** W.H. Warren Jr., D.A. Lubowich, GSFC and Hofstra University and AIP.
  29. **Revision of IAU Style Manual.** G.A. Wilkins, University of Exeter.
  30. **Revision of UDC 52 Astronomy.** G.A. Wilkins, University of Exeter.
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# LISA-II Abstracts

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## Offering an Astronomical Library on the Internet: the OAT Library

*L. Abrami, A. Balestra*  
*Library, Astronomical Observatory of Trieste*  
*Via Tiepolo 11, I-34131 Trieste.*  
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The remarkable development of the Internet has made the sharing of bibliographic information possible worldwide. With this aim, OAT has developed a library access system based on number of the more widely used network information retrieval tools (WWW, WAIS) integrating them with the automation system already in existence (CDS-ISIS).

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## The Unified Catalogue of Astronomical Italian Libraries (CUBAI) project

*L. Abrami, A. Balestra, M. Ferrucci, A. Gasperini*  
*Astronomical Observatory Trieste, Astronomical Observatory of Rome, Astronomical Observatory Arcetri*  
*library@oat.ts.astro.it, ferrucci@coma.mporzio.astro.it*

Libraries are one of the most important sources of information and can now also be consulted using the so-called NIR (Network Information Retrieval tools). However, interacting with the software managing libraries is often rather clumsy, since it seldom provides suitable tools for network use. The CUBAI (Catalogo Unificato delle Biblioteche Astronomiche Italiane - Unified Catalogue of Italian Astronomical Libraries) project offers a method of uniformly accessing Italian astronomical libraries based on WAIS and is easily implemented by WWW and other NIR tools.

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## Information Retrieval Tools and Techniques

*A. Accomazzi (1), F. Murtagh (2) and B.F. Rasmussen (2)*  
*(1) Smithsonian Astrophysical Observatory, 60 Garden Street, MS 70, Cambridge, MA 02138 USA*  
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*(2) Space Telescope - European Coordinating Facility, European Southern Observatory*  
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*fmurtagh@eso.org, bfrasmus@eso.org*

We review tools for textual information retrieval, with a focus on publicly-available toolsets such as *lq-text* and WAIS. We comment on client-server computing, the role played by the Z39.50 protocol, and some current directions being followed in this area in information retrieval. We then discuss support for multimedia information, - in particular imagery and accompanying textual and bibliographic information - and exemplify this using the HST image information system. We conclude with a look at current research directions towards "smart images".

## Resource Discovery on the Internet

*H.-M. Adorf*

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The prime source for astronomical information resources on the Internet is the AstroWeb database. For topics not covered by AstroWeb, the Internet hosts a bewildering variety of information discovery services including Aliweb, InfoSeek, Lycos, WebCrawler, and the WWW Worm. Some of these resource discovery methods are discussed. They can be used to locate e.g. on-line library services, book- and CD-ROM-stores.

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## Library Information Systems at the European Space Agency

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*L. Marie*

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The European Space Agency provides an establishment-wide coordinated library information service to the ESA centres made available by the Technical Information and Documentation Centre at ESTEC. Based on World Wide Web technology the services, developed at ESRIN and maintained by ESTEC give access to a number of library services, including an electronic version of **Espace**: the TIDC Newsletter, the ESA Press Releases, **READ**: the online TIDC Card Catalogue, ESA official documents archive, the TIDC Image Bank, to name but a few. In this paper, we discuss each service and the functionalities available to the user and how this same technology is being used for other services within ESA.

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## WAIS Searching of the Current Contents Database

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*Michael E. Grabenstein*

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The Homer E. Newell Memorial Library of NASA's Goddard Space Flight Center is developing capabilities to permit Goddard personnel to access electronic resources of the Library via the Internet. The Library's support services contractor, Maxima Corporation, and their subcontractor, SANAD Support Technologies have recently developed a World Wide Web Home Page (<http://www-library.gssc.nasa.gov>) to provide the primary means of



access. The first searchable database to be made available through the HomePage to Goddard employees is Current Contents, from the Institute for Scientific Information (ISI). The initial implementation includes coverage of articles from the last few months of 1992 to present. These records are augmented with abstracts and references, and often are more robust than equivalent records in bibliographic databases that currently serve the astronomical community. Maxima/SANAD selected Wais Incorporated's WAIS product with which to build the interface to Current Contents. This system allows access from Macintosh, IBM PC, and Unix hosts, which is an important feature for Goddard's multiplatform environment. The forms interface is structured to allow both fielded (author, article title, journal name, id number, keyword, subject term, and citation) and unfielded WAIS searches.

The system allows a user to:

1. Retrieve individual journal article records.
2. Retrieve Table of Contents of specific issues of journals.
3. Connect to articles with similar subject terms or keywords.
4. Connect to other issues of the same journal in the same year.
5. Browse journal issues from an alphabetical list of indexed journal names.

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### **The Preprint Perplex in the Electronic Age : How Did We Get Here and What Do We Do Now That We've Arrived?**

*Ellen Bouton, NRAO*

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*Sarah Stevens-Rayburn, ST Sci*

*library@stsci.edu*

We describe the trends in preprint distribution and the types of services available for access to preprints and preprint abstracts. We discuss development, maintenance, and access to bibliographic listings of preprints such as the RAP and STEP sheets, as well as more recent initiatives that offer full-text preprints via ftp or the World Wide Web. We also look at the merging of these developments in services such as the SLAC database and we discuss prospects, problems, and changes relating to an expected increase in both the electronic availability of preprints and the publication of journals in electronic forms. The focus of these considerations is the role of the astronomy librarian as an information provider in the electronic age.

**Full paper available.**

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### **Electronic Publishing at the American Astronomical Society**

*Peter B. Boyce and Heather Dalterio*

*American Astronomical Society*

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The philosophy of the American Astronomical Society has been to use open standards, to take small steps and to change our projects as a result of feedback from the users.

Information learned over the last three years has now been applied to the development of a sample electronic issue of the Astrophysical Journal Letters (<http://www.aas.org/Epub/eapjl/eapjl.html>). The first issue was demonstrated in January. Guided by the comments from the first users, an electronic version of the ApJ Letters will come on line about September, 1995.

The AAS electronic journals will have sophisticated browsing and searching capabilities, links to the searchable abstracts in NASA's Astrophysics Data System, links to data tables as well as the underlying data when they appear in public archives and the capability to print individual articles locally. Each article will also contain updated lists of subsequent articles which refer back to it (forward referencing). Various ways of charging for the journal have been proposed and will be discussed.

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### **BRAQUE: A Novel Powerful Search Interface to Large Textual Databases**

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BRAQUE, which stands for BRowse And QUery Assistant, is a MS Windows interface to the bibliographic and fulltext databases of ESA-IRS, the European Space Agency Information Retrieval Service. BRAQUE allows to search, browse, retrieve, display and manage information from ESA-IRS databases without prior knowledge of the command language used by ESA-IRS. The software applies innovative and intuitive terminology and methodology throughout. Its guided and directed search, its 'Idea Finder' module, as well as the 'Associate' function, allows also the non-expert searcher to design professional queries and to achieve a high recall and precision.

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### **Instrumentation Manuals On-Line**

*E. Bryson, CFHT*  
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This database will serve as an international clearing house for observatory manuals and information on how to access them. At present, CFHT, STScI, and IRTF are participating in this project. It is the author's intention that each observatory will submit electronically a pre-formatted template which is now available on NCSA Mosaic (URL <http://www.cfht.hawaii.edu/html/obs-manuals.html>). The template describes the instrumentation manual in the following manner: location, version, revision, institution, description wavelength region, field, keywords, contact person, size of document, figures, tables and availability. In addition the template provides the user with a direct link to the manual if it is on-line. The project author will contact the individual or institution in charge of the template at six month intervals in order to insure the manual's accuracy. It is hoped the availability of this service will encourage all observatories to make information about their manuals available electronically.

## **A List of Astronomical Meetings Available via Mosaic**

*E. Bryson, CFHT  
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D.Crabtree, DAO/CADC  
crabtree@dao.nrc.ca*

URL: [http:// cadwww.dao.nrc.ca/meetings/meetings.html](http://cadwww.dao.nrc.ca/meetings/meetings.html)

We have been making a list of astronomical and related meetings available electronically for a number of years. Recently, several meeting organizers have made information about their meetings available via anonymous ftp or even NCSA Mosaic. We have produced a new version of our electronic meeting list available via NCSA Mosaic which provides links to the information being provided electronically. Depending upon the amount of information being provided for an individual meeting, it may be possible for a user browsing the list of meetings to click on the meeting of interest, fill out a registration form, download maps, browse abstracts, etc. We hope the availability of this service will encourage other meeting organizers to make information about their meetings available electronically and to take advantage of new technology such as NCSA Mosaic.

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## **The World Wide Web: a Web Even a Fly Would Love**

*E. Bryson, CFHT  
bryson@cfht.hawaii.edu*

URL <http://www.cfht.hawaii.edu/~bryson/library.html>

Ever since my introduction to the World Wide Web (WWW), it's been love at first byte. Searching on the WWW is similar to being able to go to a public library and allow yourself to be transported to any other book or library around the world by looking at a reference or index and clicking your heels together like Dorothy did in "The Wizard of Oz", only the clicking is done with a computer mouse. During this presentation, we will explore the WWW protocols which allow clients and servers to communicate on the Internet. We will demonstrate the ease with which users can navigate the virtual tidal wave of information available with a mere click of a button. In addition, the workshop will discuss the revolutionary aspects of this network information system and how it's impacting our libraries as a primary mechanism for rapid dissemination of knowledge.

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## **Database of VLBI-Imaged Active Galactic Nuclei**

*V.S. Bychkova  
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The bibliography catalogue of extragalactic source radio maps was compiled from VLBI observation data with resolution from  $10^{-4}$  to  $10^{-1}$  arcsec.

The catalogue includes maps, published from 1965 to 1994 in the main astronomical and astrophysical periodics and monographs. The catalogue contains more than 1500 entries, each corresponding to an original map. One entry contains the name of the source, its type, redshift, the epoch and frequency of observation, the standard of registration and reference.

The catalogue was realized as a database, organized with the program LOTUS 1-2-3 at the IBM-PC and available for everybody.

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### **Scientific Archives of the Odessa Astronomical Observatory**

*T. N. Chevalkova*  
*Astronomical Observatory, Odessa State University*  
*T.G.Shevchenko Park, Odessa 270014 Ukraine*

A brief overview about the history of the Observatory is presented.

The scientific library of the Odessa Astronomical Observatory contain a large number of editions issued before and after the October Revolution in our country and abroad. After a pause, we continue edition of the "Odessa Astronomical Publications" (v. 1-5 in Russian, since vol.6 issued in 1993 - in English). The library has a reserve foundation for the literature exchange. There are also: a Sky Patrol plate collection, which is 3rd in the world according to a number of negatives (about 100,000); a Depositarium of the high-accuracy unpublished data on variable stars (about 350,000 observations).

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### **Digitization of Historical Astronomical Literature**

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*Donna J. Coletti, Librarian*  
*John G. Wolbach Library*  
*Harvard-Smithsonian Center for Astrophysics*  
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Most of the important research in astronomy during the 19th and early 20th centuries appeared in observatory publications which were distributed by most observatories throughout the world. Many of the data are still in demand (observations of variable stars, cometary observations, solar phenomena, etc.), but complete sets of these publications are held by very few libraries. Access is often limited because significant portions of the materials are brittle and in danger of being lost. The U.S. Naval Observatory (USNO) Library, and the Harvard College Observatory's Wolbach Library (HCO) hold almost complete sets of these works in their collections. Digitization of this historical collection will preserve the information for posterity, improve access, reduce retrieval time, and reduce the risk of the information disappearing through disintegration, mutilation, or theft. Pilot projects are in progress. A sample of a reformatted volume will be on display at LISA II.

## "De Cassini à l'an 2000": The Paris Observatory Library

*Marylene Vallet and Nathalie Reymonet*  
*Bibliothèque de L'Observatoire de Paris*  
*France*  
*bibliolam@mesioa.obspm.fr*

Paris Observatory founded in 1667 by Louis XIV is one of the so called "Grand Etablissement" under of the aegis of the Ministry of higher education and research, and includes two other centres : Meudon Observatory and the Radioastronomy centre in Nancay, created respectively in 1876 and 1955.

The decree which gave birth to the library itself was signed in 1785 by Louis XVI. In 1926 Meudon is joined to Paris. The total number of bound volumes, including journals, is 100.000. This comprises 2000 periodical titles (of which 1200 are current titles), monographs, photographs, incunabula and manuscripts from the 16th to the 20th century, microfilm versions of historical material. The collections of two libraries are complementary.

Starting in 1981, the library became part of a national "Centre d'Acquisition et de Diffusion de l'Information Scientifique et Technique" (CADIST) for astronomy and astrophysics documents. The catalogue is available on national networks such as the Pancatalogue or CCN. It may also be accessed on the international OCLC network. Finally the library may be accessed on internet via WWW.

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## Databases and On-line Astronomical Data: a Review

*Daniel Egret*  
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A large number of on-line astronomical services (databases, datasets, catalogs, archives, information systems, ftp-services, gophers, WAIS indexes, World-Wide Web pages) now provide access to a wide variety of astronomical data, obtained by all kinds of ground-based or space observatories.

I will try to categorize the major existing approaches (from dedicated catalogues and archives to general information systems), and describe the current status of the main public astronomical data providers.

Some new projects and future trends in the field of astronomical data management will also be presented.

## **Integrating Astronomical Data and Information Services at the CDS**

*Daniel Egret, Francois Ochsenbein, Marc Wenger, Francois Bonnarel, Michel Cr ez e, Francoise Genova, and Soizick Lesteven*

*CDS, Observatoire astronomique  
11 rue de l'Universit e, 67000 Strasbourg, France  
egret@simbad.u-strasbg.fr*

The Strasbourg astronomical Data Center (CDS) is working at providing an integrated view of astronomical data and information, by building links between several existing and forthcoming services: the SIMBAD database and name resolver, the catalogue server, the ALADIN interactive sky atlas, the bibliography server, the yellow-page services.

The current World-Wide Web CDS home page constitutes a first portal to most of these services, and examples of links and hyperlinks already available will be given. This is only a first step towards a full CDS multimedia server, taking full benefit of the client/server technology. We will discuss the next steps of the on-going developments at CDS and show some possible user scenarios for the future.

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## **The Astrophysics Science Information and Abstract System's (ASIAS) Bibliographic and Data Services**

*G. Eichhorn, S.S. Murray, A. Accomazzi, C.S. Grant, M.J. Kurtz.  
Smithsonian Astrophysical Observatory  
60 Garden Street  
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The ASIAS provides access to astronomy and astrophysics abstracts, journal articles and data through the World Wide Web (WWW). The abstract service has over 160,000 abstracts on-line, searchable by different criteria (e.g. by author name, title, etc). It is connected with the SIMBAD database at the CDS in Strasbourg, France to allow searches by object name. The CDS also provides on-line data for some of the journal articles. These data are linked to the corresponding abstracts and can be accessed directly from the abstract form. Since January, 1995, the ASIAS provides access to images of articles from the Astrophysical Journal Letters for the years 1975 - 1994. We plan to bring articles from the Astrophysical Journal and the Astronomical Journal on-line in the near future.

The ASIAS also provides access to over 150 astronomical catalogs through a WWW forms interface. This includes for instance the data from the automatic plate scanner at the University of Minnesota, the CfA redshift catalog at the Center for Astrophysics at Cambridge, MA, and the EUVE Bright Source list at the the Center for EUV Astronomy in Berkeley.

The Einstein Data Archive is also accessible through the ASIAS via WWW forms. We provide access to all the images and event lists collected by the Einstein X-ray satellite.

In cooperation with the National Institute for Standards and Technoloy (NIST) we have

developed an interface to atomic and molecular data at NIST through the WWW.

Presenter: Dr. Guenther Eichhorn, Project Manager, Astrophysics Data System, SIMBAD US Gateway. Internet: [gei@cfa.harvard.edu](mailto:gei@cfa.harvard.edu) Phone: 617-495-7260, Fax: 617-495-7356 Postal address: Smithsonian Astrophysical Observatory, 60 Garden Street, MS-4 Cambridge, MA 02138, USA

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### **Electronic Services, Electronic Journals.**

*Michael Feith*  
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An overview on the electronic services and journals of Springer-Verlag with focus on Springer Journals Preview Service and J.UCS – The Journal of Universal Computer Science – a new electronic journal under Hyper-G.

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### **Networked Information Systems in Astronomy: An Overview of Tools and Standards**

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Networked information systems are widely used within the astronomical community, with ever-increasing amounts of astronomical literature, data, and general information becoming available with each passing day. This presentation will provide an overview of current networked information tools and applications of interest to astronomers. While focusing on current applications, the use of more complex systems and protocols such as Z39.50 will be covered, and experimental applications using these standards will be discussed.

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### **The Changing Role of Librarians: Managing New Technologies in Libraries**

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Never before have there been so many opportunities for involvement in an information-based society including electronic and multimedia publishing; local, national, and global networking; development of navigational and filtering tools for access to networked and non-electronic sources; and new modes for delivering information and educational programs. The base of recorded information is growing at an accelerating rate, in increasing varieties of formats (texts, numeric, graphic, video, audio, image, electronic, etc.). Furthermore, an increasing array of computing and telecommunications technologies

are emerging to create new options and opportunities for the development of information capture, storage, retrieval, and delivery systems/services. These developments point toward increased difficulty for the information user to obtain needed information in the required time-frame, quantity, and level of detail.

The role of information specialists is to facilitate the interactions between the potential information user community and the body of recorded information. The traditional information access and management roles played by the information professions are expanding, particularly in the design and development new information products and services and of tools to support information seeking and selection, the analysis and synthesis of information content on behalf of users, and information user instruction. The emerging recognition of companies as learning organizations, reinvention of government agencies, new directions for education in universities, colleges, and schools, promise new opportunities for information specialists to reinforce and expand their facilitation of communication and learning processes in their organizations and communities.

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### **Electronic Publishing or Electronic Information Handling?**

*A. Heck*

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The current dramatic information technology evolution is bringing major modifications in the way scientists communicate. The concept of 'electronic publishing' is too restrictive and often interpreted in different ways. Thus it is giving way to the broader notion of 'electronic information handling' encompassing the various types of information as well as the different media and communication methodologies and technologies. New problems and challenges result also from this new information age, especially on legal, ethical and educational grounds.

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### **The Star\*s Family – Status Report**

*A. Heck*

*Strasbourg Astron. Obs.*

A status report on the various Star\*s Family products will be presented. These yellow-page services encompass directories of organizations and dictionaries of abbreviations and acronyms on paper as well as the corresponding on-line databases. In the latter resources, special care has been devoted to WWW with active URLs for the organizations with WWW access, with the addition of a dedicated database for personal WWW pages.



## **A Bibliography for Modern Serials**

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The purpose of compiling bibliography, scope of chosen serials and the main characters of their bibliographic information as well as the essentials and use of this bibliography are presented.

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## **Astronomical Databases in the XVII–XVIII Centuries: Old Astronomical Books in the Library of Gothard Observatory.**

*I. Jankovics, J. Horvath and I.J. Vincze*  
*Eotvos Lorand University*  
*Gothard Astrophysical Observatory*  
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The historical Gothard collection of library and scientific–technical instruments is a valuable inheritance of the Gothard Observatory. This makes it possible to provide a cultural and historical window to the development of scientific knowledge and thinking. The Gothard Observatory is eager to share the wonders this rich scientific treasury with colleagues of the ages of Networked Information.

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## **Economic Impact on a Special Library**

*M.E. Jimenez-Fragozo, V. Mata-Acosta, M.A. Moreno-Corral*  
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Information is analyzed concerning the economic politics of the Mexican government and its impact on the growth and development of the Library of the Observatorio Astronomico Nacional during the period of 1980–1994.

---

## **The Updating of the Bibliography in the SIMBAD Database**

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The scanning of about a hundred journals to extract all astronomical objects cited in the

papers (except those of the solar system) is done at the Institut d'Astrophysique de Paris, with the collaboration of Paris, Bordeaux and Strasbourg observatories. Eight persons (most of them, part-time) are involved in the daily work of inputting the bibliographical references and the identifiers of the objects, which are SIMBAD's key-words. Although some tasks have been automated, most of the work still requires manual treatment.

The increasing complexity of the nomenclature of objects, the ambiguities of the designations used by the authors, the numerous errors or misprints make it more and more difficult to identify an object.

The persons in charge of updating the bibliography are working hard to avoid or correct possible mistakes. The collaboration with the astronomers, both as authors and as users, is the best way to improve the quality of SIMBAD.

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### **The Library of the Institute of Theoretical Astronomy of the R.A.S. (1924-1994). History, Present State, Perspectives for Future**

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Building up a specialized library collection of the Library of the Institute of Theoretical Astronomy of the Russian Academy of Sciences beginning with foundation of the Library (1924) up to the present time have been considered in their historical perspective. The main acquisition sources, stock figures, various parameters of the collection composition, including information on rare foreign editions are also dealt with. The data on the existing retrieval systems and the perspectives of developing computerized problem directed reference bibliographic complexes are also considered.

**Full paper available** (in Postscript).

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### **The A&A Tables and Abstracts: An Example of Collaboration Between Data Centers and Editors**

*James Lequeux*  
*Observatoire de Paris*

*Francois Ochsenbein*  
*Observatoire de Strasbourg*

As the result of an agreement between the Centre de Donnees Stellaires (CDS) and A&A, the Abstracts of all papers published by A&A (main journal and Supplement) and some large tabular data published in A&A are distributed in electronic form. The impact of this service on the astronomical community is discussed, based on a two-year experience for the tabular data and one year for the Abstract service,

## **Multivariate Data Analysis applied to the bibliographical information retrieval: The SIMBAD Quality-Control**

*Soizick Lesteven*  
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The SIMBAD astronomical database, developed at the Centre de Données de Strasbourg, presently contains one million objects (stellar and non stellar), all described by heterogeneous data (bibliographic references, measurements and sets of identification). Taking the amount of data into consideration and the rate of new data production (from ground and space), it is necessary to use automatic methods to check the quality of SIMBAD. Two methods are defined and used:

- . an Expert System founded on pre-established knowledge and modeled on the astronomer's reasoning;
- . Multivariate Data Analysis, based on keywords defining the bibliographical references, allowing to cluster astronomical objects. This means that information included in the bibliographical references is quantified to characterize astronomical objects. This information is used to disclose anomalies in SIMBAD. The first application verifies the coherence of the SIMBAD object types with the bibliographical information concerning each object.

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## **F.W.Strüve – the Founder of Pulkovo Observatory**

*Natalia Markova*  
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The Pulkovo Observatory (including the famous library) was founded by an outstanding astronomer of the 19 century F.W. Strüve. He was the first librarian and bibliographer in the library as well. The scientific career and life of this great astronomer is considered. His methods of the scientific library assembling are presented. His activity in bibliography (systematic catalog) is discussed.

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## **Scientific Instruments and Their Related Correspondence**

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The need for registering and detailing all information relative to the history of astronomical instruments and any alterations to, or restoration of, them is stressed. This article describes the conditions under which both the historical scientific instruments and their related

documentation, where now available, are catalogued and preserved at Armagh Observatory. As illustrative examples, we have selected two items of equipment which were acquired at the time of the foundation of the observatory in 1790.

**Full paper available.**

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### **The Internet for Librarians**

*Uta Michold*  
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Librarianship is currently undergoing major changes. New information sources, accessible via the "network of networks", the Internet, offer opportunities which were previously unknown, but which require continuous ongoing learning. The Internet seems to be organized badly or not at all. The poor appearance might lead to an underestimation of its value.

In the following, an introduction to the main functions will be given in order to facilitate understanding and use of the Internet. E-Mail, FTP (File Transfer Protocol) and Telnet will be covered, as well as Mailing lists, Newsgroups and the tools Archie, Gopher, Veronica, WAIS (Wide Area Information Server) and the World Wide Web (WWW).

Examples will be given to show possible applications for library services.

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### **The Library of the Pulkovo Observatory**

*Elena Potter*  
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The paper contains information about the history of the library of Pulkovo Observatory, which was officially inaugurated in 1839. The library ranked among the best European libraries. The most interesting part of collection is the "Strüve fund", which contains 79 incunabulas, 169 paleotypes, 272 books of the 16 century. It was collected by F.W. Strüve, and his son O. Strüve. The fate of the library during the World War II and present state are described. Now the library has 250000 titles. The paper includes the points of service to readers, acquisition, systematization, the bibliographical, the library storage of book collection and other.

## **Acquisitions of the Astronomical Libraries of the Russian Academy of Sciences**

*D.A. Ptitsyn, O.B. Dluzhnevskaya, N.A. Pomelnikova*  
*Dimitri A. Ptitsyn*  
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The changes in literature acquisitions of the scientific libraries of astronomical institutes and observatories of the Russian Academy of Sciences during the last years are discussed. The greater role played by western astronomical societies and funds in supplying the astronomical libraries of the FSU with scientific journals is emphasized. The technical facilities of the Russian astronomical libraries are considered in connection with new technology developments in the world-wide exchange of scientific information.

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## **The Role of the CD-ROM in Astronomy**

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The CD-ROM has become a major data storage medium in astronomy. The release of the Digitized Sky Survey is the most recent example of this phenomena. I will summarize the large scale jukebox technologies available for making the DSS available over LANs (Local Area Networks).

I will also give an overview of the developments in disciplines such as medicine, chemistry and business, where CD-ROMs have been used to distribute the full text of journals. These factors may give us insights into the future role of CD-ROMs.

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## **So you thought librarianship was about books!**

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A not too serious talk about the difference between an astronomical library and a Good Astronomical Library, the way users modify their library, and the fact that today we all know more and more about less and less.

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## A Uniform Bibliographic Code

*M. Schmitz (1), G. Helou (1), P. Dubois (2), C. LaGue (1), B. Madore (1), H.G. Corwin Jr. (1) and S. Lesteven (2)*

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The uniform 19–digit code used for bibliographic references within NED and SIMBAD was developed by both teams in consultation with Dr. H. Abt, editor of the *Astrophysical Journal*. The primary purpose of the "REF\_CODE" is to provide a unique and traceable representation of a bibliographic reference within the structure of each database. However, in many cases, the code has sufficient information to be quickly deciphered by eye, and it is used frequently in the interfaces as a succinct abbreviation of a full bibliographic reference. Since its inception, it has become a standard code not only for NED and SIMBAD, but – with minor variations – for ADS and other bibliographic services. The format of the standard code is as follows:

YYYYJJJJVVVVMPPPPA

For example:

1994A&AS..108..235J

would be how the paper by Jackson, et al. 1994, *A&AS*, 108, 235 would be coded.

A description of the different fields will be given.

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### SIMBAD for Librarians

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This tutorial is intended to show librarians how they can learn to use the object oriented database SIMBAD. This database has long been thought to be of use only to astronomers but there are functionalities which are of vital use to librarians. The Strasbourg Observatory is keen that librarians are familiar with the method of access and the basic commands so they can assist potential users. We should be able to answer questions, for example, on how to gain access, how to get a list of bibliographic citations for an object as well as measurements and what catalogues are available on the database using the info commands.

The tutorial will demonstrate the differences between the original or "native" SIMBAD and the new windows version called XSIMBAD. In my role as SIMBAD correspondent for

Australia I was surprised how many scientists and students need help with using this very important resource. A questionnaire sent out to the scientists revealed the need for someone who could assist them with the basic requirements to use the database. Learning to use SIMBAD even in the most elementary way will enhance your position in this new age of information retrieval.

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### **The Multi-Lingual Supplement to the Astronomy Thesaurus**

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The compilers and translators of the recently released IAU "Astronomy Thesaurus" (affectionately known as TREX), are pleased to announce the availability of the new multi-lingual supplement (ML-TREX) in French, German, Italian and Spanish. The primary terms as well as the non-preferred terms have been translated in the supplement and it is designed enhance the main thesaurus as an online reference tool. Some review copies have been sent out on a limited distribution basis.

Although much of current scientific research is reported in English there is a need by librarians to have a reference resource of terminology in a variety of languages. Librarians are aware of the amount of literature in their libraries in all languages both current and historical which must be dealt with and few of us have the multi-lingual skills to cope with it. The supplement is designed to be used as an online reference resource and therefore has been made available via the World Wide Web and an anonymous ftp account at the Anglo-Australian Observatory. The files can be down-loaded directly into any preferred word processor or into a computer system as a "knowledge base" together with the main thesaurus. For more information: LIB@aaoepp.aao.gov.au or <http://www.aao.gov.au> or the thesaurus directory via anonymous ftp access.

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### **S O S for the Astronomy Schedules of the Universal Decimal Classification - UDC 52**

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One could equate the slow demise of the astronomy schedules in UDC with the sinking of the Titanic. Librarians are faced with a serious dilemma. Those using UDC 52 have been frustrated for some time with these archaic schedules which no longer reflect the advances in various subject areas of this science. UDC 52 has literally become a "mark and park" classification system. In other words there are few numbers which are specific to the subject matter in the current literature. It is reasonable to assume that most of the classification systems used in our libraries are not up-to-date with new subject developments.

UDC has the potential for being one of the best classification systems in our field and a model for other classification systems. A life line is needed to stop this system sinking into oblivion or those using it may be faced with adopting a new system and the reclassification of the whole library.

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### **Classification System and Information Services in the Library of SAO RAS**

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The classification system used at SAO RAS is described. It includes both special determinants from UDC (Universal Decimal Classification) and newer tables with astronomical terms from the Library-Bibliographical Classification (LBC). The classification tables are continually modified, and new astronomical terms are introduced.

At the present time the information services of the scientists is fulfilled with the help of the Abstract Journal Astronomy, Astronomy and Astrophysics Abstracts, catalogues and card indexes of the library.

Based on our classification system and The Astronomy Thesaurus completed by R.M.Shobbrook and R.R.Shobbrook the development of a database for the library has been started, which allows prompt service of the observatory's staff members.

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### **150th Anniversary of Astronomical Observatory Library**

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The scientific library of the Astronomical observatory of Kyiv Taras Shevchenko University is one of the oldest ones of such a type in Ukraine. Our Astronomical Observatory and its scientific library will celebrate 150-th anniversary of their foundation. 900 volumes of duplicates of Olbers' private library underlay our library. These ones were acquired by Russian Academy of Sciences for Poulkovo observatory in 1841 but according to Struve's order were transmitted to Kyiv Saint Volodymyr University. These books are of great value. There are works edited during Copernicus', Kepler's, Galilei's, Newton's, Descartes' lifetime. Our library contains more than 100000 units of storage – monographs, periodical astronomical editions from the first (Astronomische Nachrichten, Astronomical journal, Monthly Notices etc), editions of the majority of the astronomical observatories and institutions of the world, unique astronomical atlases and maps, such as:

1. Loewy, M et Puiseux, P. Atlas lunaire, 1899;
2. Copernico, N. De lateribus et angulis triangulorum, 1542;
3. Des-cartes, R. Principa philosophia, 1664;
4. Flamsteed, J. Atlas coelestis, 1753;
5. Galilaei, G. Dialogitam eos quos edidit de Systematic Mundi quam quos de motu locali, 1699;



6. Hevelii, J. Cometographia, 1665;
7. Newtono, I. Philosophiae naturalis principia Mathematica, 1714;
8. Carte du Ciel Catalogue

Subscribers of our scientific library are (besides scientific workers of our Astronomical observatory) professors, teachers and students of Kyiv University, scientific workers of the Main Astronomical observatory of National Academy of Sciences of Ukraine and other scientific institutions. Last years our library realize interchange of literature with libraries of astronomical observatories of majority of countries. The scientific library tries to do its best in spite of not so easy circumstances.

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### **Growing Importance of Conference Proceedings in Astronomy and Astrophysics and its Impact on Collection Development**

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This paper analyses the growing importance of conference proceedings in Astronomy & Astrophysics. There has been an increase in the number of conference proceedings during the last ten years (1980 to 1990). In Astronomy alone there were around 131 international conference proceedings in 1980, 228 in 1985 and it rose to 267 in 1990. Our data (collected from Apj) shows that the percentage of references to conference proceedings increased from 4.95% in 1980, 7% in 1985 to 10.33% in 1990, showing the growing dependence of scientists on conference proceedings. In view of this importance, the paper discusses the problems encountered by librarians in acquiring proceedings volumes especially in India.

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### **Database of Interstellar Methanol Lines**

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**Keywords:** physics and astronomy, star-forming regions, interstellar: molecules-methanol lines, catalogues, bibliography.

Catalogue is the most common form of primary analysis and storing of astronomical information. Searching for the nature of the most complicated cosmic masers – methanol masers, and investigation of thermal methanol emission from surrounding gas-dust medium – is one of the most actively developing regions of modern cosmic spectroscopy. In recent time a large amount of observational data was obtained, which need in juxtaposition and thorough analysis. The data were obtained with different radiotelescopes, on different frequencies and in different observing conditions. For the purpose of obtaining of maximum information about physical conditions in the interstellar medium from these data one needs to collect all published observational data, to transmit it to some common form which permits their comparison and to publish as single catalogue accesible to all theoreticians and experimentators.

In this project a catalogue of observational data on cosmic methanol lines was made, including coordinates, velocity, line width, and flux density of all observational frequencies. Also a bibliography on all theoretical, laboratory and experimental investigations on methanol was collected. There is no catalogue of this kind on methanol lines.

It is supposed to publish this catalog in one of the leading astronomical editions and to include it in the world computer center of astronomical databases. It is supposed that users have telecommunication channels. Users having PC will get catalogue on floppy discs. The Catalog was made using DOS operating system and exists also in UNIX operating system and one can take file of the catalogue by FTP. We propose to add new data to catalogue and change electronic variant.

---

### **Computer-Based Method for Online Service and Compact Storage of Data**

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New method for compressing some types of astronomical data is proposed and discussed. The method is intended to provide astronomers more convenient technique for data retrieval from observational databases. The technique is based on the principal component method (PCM) of data analysis and their representation by characteristic vectors and eigenvalues. It allows to change the variety of data records by relatively small number of parameters. The initial data can be restored simply by linear combinations of obtained characteristic vectors. This approach can essentially reduce the dimensions of data being stored in databases and transferred through a network. Our study shows that resulting volumes of data depend on the required accuracy of the representation and can be several times less than the initial ones. We note that using this method does not prevent applying the widely-used software for further data compressing. As the PCM is able to represent data analytically it can be used for proper adaptation of the requested information to the researcher's aims. Finally, taking into account that the method itself is a powerful tool for data smoothing, modelling and comparison we find it having good prospects for use in computer databases. Some examples of the PCM applications are described.

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### **Variations of the Impact of Astronomical Publications versus Physics Publications**

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*Parina Hassanaly, CRRM, Centre universitaire de St Jérôme, Marseille*

Nowadays as credits for research become shorter and shorter, the impact of Astronomy is crucial. How can we define the impact of a science? and above all such a fundamental science as Astronomy? It is very high on the lay man who reacts emotively to each discovery which is, sometimes, badly explained. We don't intend to measure this kind of impact, only try to give some hints on the curves of the scientific impact of astronomical publications versus other journals. For this purpose, we shall study the variations of two factors: the impact factor (IF) and the cited half-life (HL) for the main publications on stellar and

extragalactic astronomy and for some publications of physics during the last 10 years.

In the first part, we describe the tool used, then we discuss the choice of the publications and plot the various curves. In conclusion, we give some explanations for the variations.

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### **A Comparison of the Astronomy and Astrophysics Abstracts (A&AA) and the American Institute of Physics (AIP) Physics and Astronomy Classification Schemes (PACS)**

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The astronomy and astrophysics sections of the PACS are used by AIP to classify articles published in AIP, AIP member-society, and Russian translation journals for inclusion in abstract journals or computerized databases, and to prepare subject indexes. PACS has been extensively revised and enhanced over the last several years to become a detailed and flexible scheme designed for simplified and efficient retrieval of published papers from computerized bibliographical databases. We demonstrate the increased resolution and flexibility of the current PACS by mapping it to the presently-employed A&AA classification scheme. We have prepared a concordance table between PACS (and the variant of PACS used for Physics Abstracts) and the A&AA classification scheme. The present PACS is well-suited for database retrieval and will be revised frequently to keep it current with the continuously changing fields of astronomy and astrophysics. We also compare and contrast the 250 PACS categories in astronomy and astrophysics with the alphabetical keyword lists used by A&AA or ApJ (ApJ, MNRAS, and A&A use a unified keyword list) to prepare their subject indexes. An electronic version of our concordance tables will be made available to the astronomical community.

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### **Revision of IAU Style Manual**

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The 1989 edition of the 'IAU Style Manual' is in need of revision to reflect the changes in practice that have taken place since its preparation. These changes include the use of desk-top systems for the production of high-quality copy, the electronic transmission of text with embedded typesetting codes and the electronic publication of papers and reports, which may contain numerical data and images. The Manual should give advice and recommendations about the new procedures and typographical formats, but it is more important than ever that it should give clear and appropriate recommendations on matters that affect the quality of the content of all astronomical publications. The Manual should

provide especially for the needs of astronomers who do not have English as their first language and it should include advice to them on the oral presentation of their papers. The editor, G. A. Wilkins, would be pleased to have the assistance of astronomers and others who are concerned with the quality of astronomical publications and who would be willing to participate in any aspect of the revision.

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### **Revision of UDC 52 Astronomy**

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The revision of the Universal Decimal Classification for Astronomy, including Astrophysics and Space Research, is now in progress, but at present only three persons are active in the IAU Commission 5 Task Group that was set up at the last General Assembly. The chairman of the Task Group, G. A. Wilkins, would welcome the assistance of other astronomers and librarians in reviewing and checking the proposed revisions and associated index, especially in areas in which they have special expertise. The UDC system is widely used throughout the world as it provides a comprehensive and language independent system for the arrangement of books and, more importantly, for the indexing of papers and reports as an aid to the retrieval of information. The classes 52/524 for astronomy were last revised 20 years ago and so it is highly desirable that a thorough revision be completed as soon as possible. A guide to the use of UDC in astronomy is also in preparation and will be submitted with the revised schedule and index to the UDC Consortium for publication. This material will supplement 'The Astronomy Thesaurus' and will provide a valuable tool for both astronomers and non-astronomers who are searching for astronomical information. Your contribution to this project would undoubtedly benefit the very many users of this classification system.

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*Last update: 5 May 1995.*

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