

ESO Telescope Bibliography: New Public Interface

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The ESO Telescope Bibliography (telbib) is a database of refereed papers published by the ESO users' community. All papers that use, partly or exclusively, data from ESO telescopes are included. The front end of telbib has undergone a complete transformation and a state-of-the-art interface has been implemented to provide new features and sophisticated search functionality. telbib has been created and will be further developed by the ESO librarians.

Introduction

The ESO library maintains the Telescope Bibliography¹, a database of refereed papers that use ESO data. It is compiled by scanning the major astronomy journals for scientific papers that contain any of the ESO-defined keywords (e.g., telescope and instrument names). Bibliographic information, citations and some further metadata are imported from the NASA Astrophysics Data System (ADS)². Standardised descriptions of telescopes and instruments, survey names and other tags as well as programme IDs are assigned by the ESO librarians.

Access to the full texts of papers in telbib is governed by subscription. telbib records contain links to the ADS from where typically the PDF and HTML versions can be obtained, provided a subscription for these journals is in place. Alternatively, the articles may be available through open access agreements. In many cases ADS also provides links to the freely available manuscripts at the arXiv/astro-ph e-print server.

telbib contains records from 1996 onwards. Programme IDs and instrument tags are available for all papers using Paranal or Chajnantor data as well as for papers based on La Silla data since publication year 2000. We make extensive efforts in order to identify all refereed papers that use ESO data including:

- semi-automated screening of journals for ESO-defined keywords using FUSE, a full-text search tool specifically designed for this purpose. At present, the following journals are routinely screened: *A&A*, *A&ARv*, *AJ*, *AN*, *ApJ*, *ApJS*, *ARA&A*, *EM&P*, *Icarus*, *MNRAS*, *Nature*, *NewA*, *NewAR*, *PASJ*, *PASP*, *P&SS*, *Science*;
- human inspection of each paper that contains at least one of the keywords;
- identification and cross-checking of all instruments and programme IDs used;
- querying of the ESO observing schedule and ESO archive to obtain programme IDs not mentioned in the paper;
- correspondence with authors and instrument scientists in case of doubt.

Therefore, telbib is a unique source that connects published articles with the observing programmes that generated the data. The database is used to derive publication and citation statistics of specific telescopes and instruments and can help to define guidelines for future facilities.

A description of the previous web interface can be found in Delmotte et al. (2005). In December 2011, a new public interface was released, using Apache Solr and PHP. Key features include:

Search interface:

- query by bibliographic information or instrument, telescope and programme ID;
- autosuggest support for author, bib-code, and programme ID searches;

- overview of top five journals and ESO instruments;
- spell-checker for search terms (“Did you mean...?”);

Results list:

- paper titles linked to detailed display;
- faceted filtering to limit search results;
- programme IDs linked to data in the ESO archive;
- various options to sort the results;
- export feature for further use of results set;

Detailed record display:

- full list of observing facilities and additional tags;
- highlighted search terms;
- recommendations for other papers of interest.

In the following, we will explain and illustrate the main features of the new features of telbib access. A full description of telbib, the associated full-text search system FUSE, and the new telbib front end can be found in Meakins & Grothkopf (2012).

Search interface

The new public telbib interface offers a wide range of query options for easy access to the information. These include searches for bibliographic information (authors, title words, abstract, publication year, etc.) as well as for observing facilities (instruments, telescopes) and programme IDs. The main search screen provides a dedicated area on the lefthand

Figure 1. The telbib search interface page is shown.

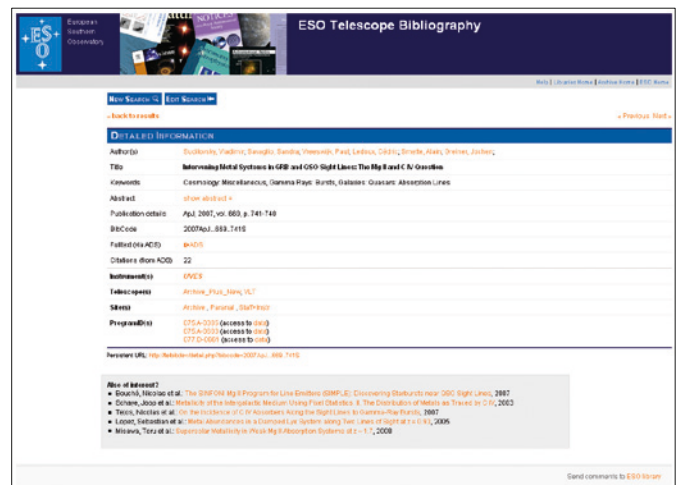


Figure 3. Detailed record display of a bibliographic item using ESO data.

Search results can be limited by using the faceted filtering in the “Refine Search” area. Facets are available for publication years, journals, and instruments. For the latter two filters, the top five among these results are shown, together with the five most recent years. Clicking on the “more...” button displays the entire lists. Results sets can be exported into comma-separated (.csv) or tab-separated (.txt) format for further use.

Certain search fields provide a spell-checker. For instance, if author names or title words entered in the respective fields do not lead to any hits, the system will respond instead with the question "Did you mean...?", followed by suggestions that will turn up results. In addition, after only two characters have been entered in the authors, bibcode, or programme ID fields, an autosuggest feature will start, offering search terms which exist in the index.

Detailed record display

The detailed record view (Figure 3) shows all ESO observing facilities that were used in the paper, as well as additional tags, indicating, for instance, use of archival data. Search terms are displayed in *italics* so that they can be easily identified. Instruments, telescopes, and observing sites provide hyperlinks that initiate new searches to retrieve other papers that use the same facilities.

For programme IDs, two links are offered. Clicking on the programme ID itself will evoke a new search for all papers that used data from the same programme. Selecting “access to data” takes users to the observing schedule and from there to the archive where the respective data can be requested if the proprietary period has ended.

Citations are loaded on-the-fly from ADS, hence they are as current and complete

A search interface, even one that has just been released, is always a work in progress. Consequently, we are already focusing on the next round of improvements.

As statistics are of increasing interest, we are currently investigating the option of a dedicated statistics area which will be accessible from the public search interface. At present, basic statistics derived from the Telescope Bibliography are available through a document located

on the Librarians homepage). More specific reports can be provided by the ESO librarians. Soon, users of the public interface will be able to create and visualise statistics based on user-defined criteria, for instance comparisons of specific instruments over a range of publication years.

Feedback on the new telbib interface is very welcome. For questions or suggestions, please contact us at library@eso.org. A more detailed description of the telbib database is available on the web⁴. telbib users who would like to stay

informed about newly added papers are invited to subscribe to our RSS feed⁵.

Acknowledgements

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and Myha Vuong from ESO, for their excellent help and support of the previous telbib front end. FUSE and telbib make extensive use of NASA's Astrophysics Data System.

References

- Delmotte, N. et al. 2005, *The Messenger*, 119, 50
Meakins, S. & Grothkopf, U. 2012, ADASS XXI, Astronomical Society of the Pacific (ASP), in print

Links

- ¹ ESO Telescope Bibliography: <http://telbib.eso.org/>
² Astrophysics Data System (ADS): <http://adsabs.harvard.edu>
³ Some telbib statistics: <http://www.eso.org/libraries/edocs/ESO/ESOstats.pdf>
⁴ On-line help for telbib: <http://telbib.eso.org/help.html>
⁵ ESO libraries RSS feed: <http://www.eso.org/sci/libraries/rss.php>

Greetings from the ESO Council

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I am a research professor on the Spanish Council for Scientific Research (CSIC) and was recently elected President of ESO Council, a very high honour and a great challenge for me. I am originally Catalanian, and have been based in Cantabria (in the north of Spain) for most of the last 30 years. My astronomical research is conducted mostly at X-ray wavelengths. Active galactic nuclei, as the signposts of growing supermassive black holes, are my pet objects. I am deeply involved in ESA's X-ray observatory Athena candidate mission, now competing for a launch slot in 2022, and am chair of its science working group. My research activity has slowed down during the last decade as I have been advising the Spanish Government on astronomy matters. On a more personal level, I enjoy sharing experiences with my family (wife Mar, son David and daughter Sara) and long-range mountain biking (e.g., along the Saint James's Way). And yes, I also love watching FC Barcelona play delightful football.

I started to travel frequently to ESO Garching in 2004 when I was asked to negotiate the in-kind deliverables to



Figure 1. Xavier Barcons pictured in the Council Room at ESO Headquarters.

cover a part of Spain's special contribution to ESO. Spain joined ESO with effect July 2006 (Barcons, 2007) and I was appointed first observer and later government representative on the ESO Council. At ESO I have served in the Observing Programmes Committee, Scientific Strategy Working Group, New Member States Working Group, the Atacama Large Millimeter/submillimeter Array (ALMA) Board, the ALMA Budget Committee and the ALMA Personnel Committee.

At ESO every year is exciting, but maybe not all are equally exciting. In particular 2012 is bound to be an incredibly exciting year for at least three reasons. The first is that we will see the first scientific results from ALMA, now that Early Science observations are underway. It has been very reassuring to see how astronomers in the ESO Member States have massively requested science observations in this first phase of ALMA operations and this will lead no doubt to substantial scientific progress.