

## **The Cost and the Use of Serials in Italian Astronomical Libraries**

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**Abstract.** We present the results of a two year study on the nature, cost and use of periodicals in Italian Astronomical Libraries (IALs). In the year 2000, IALs spent two-thirds of the budget ( $\sim 440.000$  Euros) for serial subscriptions. This fact provided an incentive for the 12 Observatory librarians to investigate the potential for developing a consortium. In so doing, we first analysed characteristics of our individual collections and then evaluated the cost of on-line access as opposed to paper subscriptions. Then we studied the relationship between cost and serial usage.

### **1. Introduction**

This research is the result of a two-year (2000-2002) study on the characteristics, cost and use of serials in Italian Astronomical Libraries. <sup>1</sup>

These libraries serve twelve Astronomical and Astrophysical Observatories and two Astronomy Departments. <sup>2</sup>

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<sup>1</sup>F. Brunetti, M. Marra, L. Schiavone. *Costo dei periodici: il caso delle biblioteche astronomiche italiane*, 2001, *Biblioteche oggi*, **19(10)**, 36

<sup>2</sup>Arcetri Astrophysical Observatory (Firenze); Department of Astronomy, University of Bologna and Bologna Astronomical Observatory; Brera and Merate Astronomical Observatories

The IALs have been networking since 1995. They created the mailing list ASTROBIB, the metaOPAC CUBAI for books<sup>3</sup> and carried out other projects such as the Italian Astronomy Libraries Serials Catalogue<sup>4</sup>.

At the beginning of 2002, the Italian Observatories merged into what is now known as the INAF (Istituto Nazionale di Astrofisica-National Institute for Astrophysics)<sup>5</sup>. We are also now considered units of the National Astronomical Library.

The research started with an analysis of the characteristics and costs of serial collections and their use.

## 2. Analysis of the Characteristics and Costs of Serial Collections

In 2000, IALs renewed 990 subscriptions, 823 of which were purchased and the rest were received as gifts or through exchanges with other libraries. Of the 823 purchased subscriptions, about 300 of them (36.45%) concentrated on a limited number of titles; that is, the most important astronomical journals (*Annual Review of Astronomy and Astrophysics*, *Astronomy and Astrophysics*, *Astrophysical Journal*, *Astronomical Journal*, *Monthly Notices of Royal Astronomical Society*, *New Astronomy*).

Each library followed its own purchase policy.

The main objective of our research was to take a census of the serial collections at all INAF Libraries. Then, following the CDD (Classificazione Decimale Dewey), we classified each serial into specific subject headings.(see Fig. 1).

We compared the total number of subscriptions with the total number of titles subscribed, divided each per classification, and summarized the average number of subscriptions for each subject heading. We found that in case of the classification number '520' (Astronomy and related sciences), we had a total of 79 titles and 486 subscriptions, with an average of 6.15 subscriptions per title (see Fig. 2).

We also noticed a concentration of purchases per publisher, i.e. the majority of subscriptions were active with a limited number of publishers (Kluwer, AIP, University of Chicago Press, Blackwell, Elsevier). The recognition of certain publishers has enlightened the IAL as to whom we might be negotiating with for subscription licenses in the future. We also noted that online subscriptions were activated for only astronomical journals. In the year 2000, we had 22 online subscriptions, ~2.5% of total purchased subscriptions, and 21 of them were for astronomical journals (see Fig. 3).

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(Milano); Cagliari Astronomical Observatory; Capodimonte Astronomical Observatory (Napoli); Catania Astrophysical Observatory and Department of Astronomy, University of Catania; Rome Astronomical Observatory; Padova Astronomical Observatory and Department of Astronomy, University of Padova; Palermo Astronomical Observatory "Giuseppe S. Vaiana"; Teramo Astronomical Observatory "Vincenzo Cerulli"; Torino Astronomical Observatory; Trieste Astronomical Observatory

<sup>3</sup>see: <<http://www.arcetri.astro.it/BIBLIO/cubai-http/>>

<sup>4</sup>see: <<http://www.cib.unibo.it/biblioteche/mask/ASTRO.html/>>

<sup>5</sup>see: <<http://www.inaf.it/>>

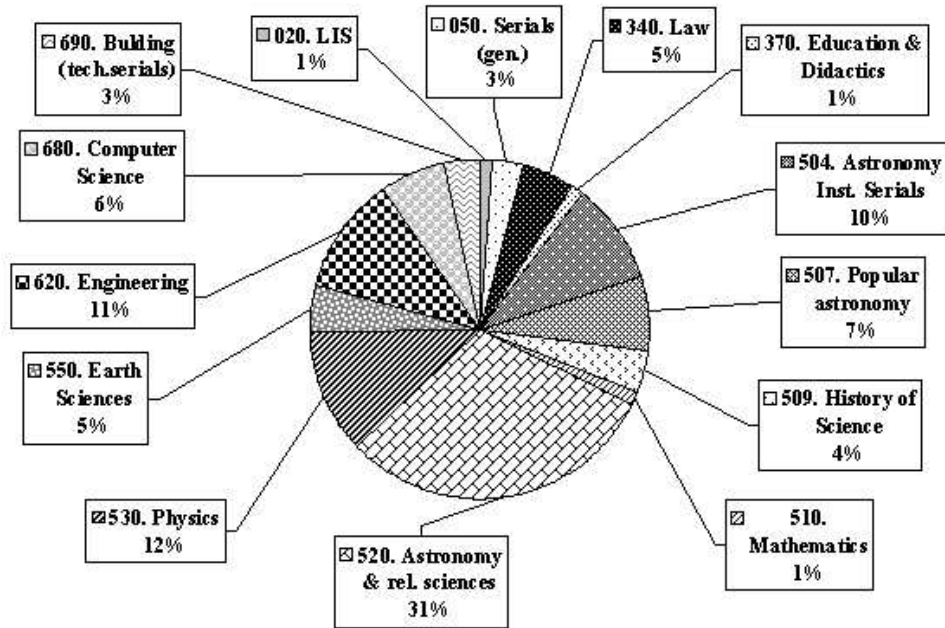


Figure 1. Titles per CDD class in the IALs

This number does not consider, of course, the journals whose online accesses were included in the paper subscriptions fees. During the year 2000, the IALs spent 853.630.321 Italian Lira (corresponding to  $\sim 440.000$  Euros) for the subscriptions to serials, i.e. the 69.08% of their 1.235.698.000 Italian Lira budget ( $\sim 638.000$  Euros). These numbers confirm the same trend as in University and Research Libraries, in which the cost of periodical subscriptions is the main source of expense, and covers two-thirds of their annual budgets.

A further analysis pointed out that half of the IALs purchased the same 49 serials, i.e. about the 21% of all the serials under subscription. The cost of these 49 serials covers 80% of the global expense for serials.

### 3. Use of Serials

At the beginning of 2002, IALs conducted a study on serials.

Astronomers, researchers, and the technical staff within the communities served responded to a detailed questionnaire. This research was aimed to achieve three targets:

- comprehension of the distribution of serials and their impact on the different research areas;
- understanding of the use of online subscriptions by the researchers;
- evaluation of the role of the IALs bibliographical services on access to information resources.

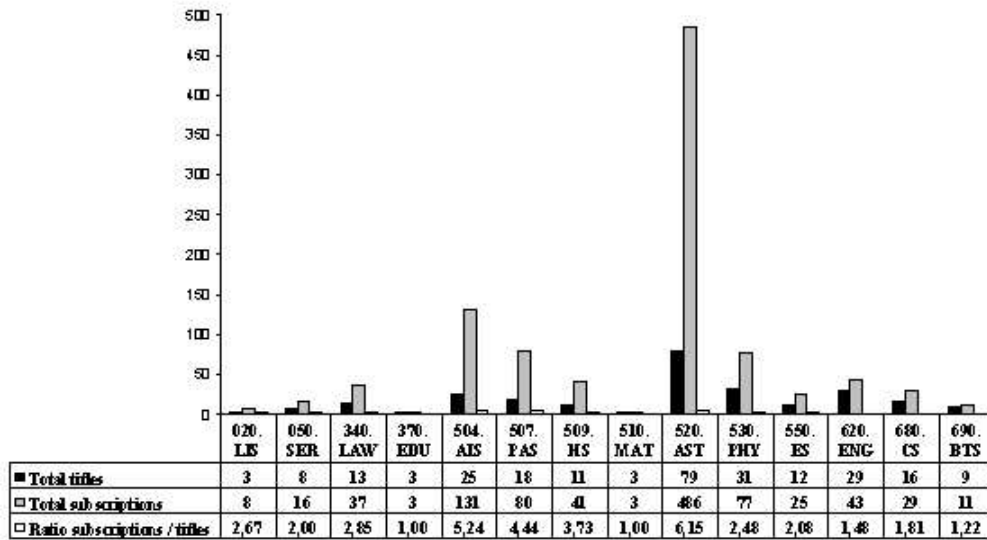


Figure 2. Total number of subscriptions compared to total titles subscribed

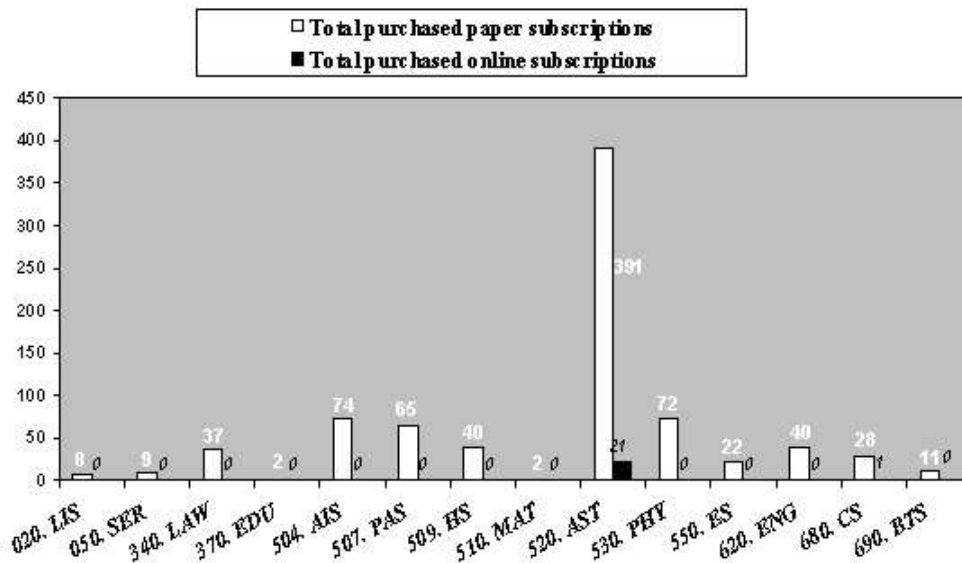


Figure 3. Paper subscriptions compared to online

An analysis of these data confirms that the most-read titles correspond to the above mentioned 49 serials. In other words, the users' attention is focused on a relatively low number of titles. Most users (74.4%) prefer online access.

#### **4. Conclusions**

All the data collected, therefore, proposes a new serial acquisition policy that will be in keeping with the following targets:

- rationalization and reduction of paper subscriptions in order to lower the costs;
- electronic collections development;
- choice of continuation and future storage of the paper collections following a geographical and historical rule;
- improving of document delivery toward IALs.