CLASSIFICATION SYSTEMS AND INFORMATION SERVICE IN THE LIBRARY OF SAO RAS

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Abstract

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

At the present time the information service of scientists is fulfilled through the journals Astronomiya (Russian) and Astronomy and Astrophysics Abstracts, catalogues and card indices of the library. Based on our classification system and The Astronomy Thesaurus compiled by R.M. Shobbrook and R.R. Shobbrook the development of database for the library has been started, which will allow prompt service of the observatory's staff.

1 Introduction

The Special Astrophysical Observatory of the Russian Academy of Sciences (SAO RAS) is situated in the mountains of the Northern Caucasus (1300 m above sea level) at a distance of about 300 km from the nearest cities and over 2000 km from Moscow - the main information centre of Russia.

SAO possesses two Russia's largest telescopes - a 6-metre optical telescope (BTA) and a radio telescope with a circular antenna 600 metres in diameter (RATAN-600). Recently observations have been started on a 1 - metre telescope manufactured at Karl Zeiss. The telescopes are equipped with up-to-date light detectors. The principal trends of research are extragalactic investigations, stellar astronomy, the Sun, planets. The number of staff members of SAO is 500, about 120 out of them are astronomers the rest of them are engineers and maintainance personnel. The library of SAO was organized in 1967 concurrently with the beginning of construction of the Observatory. There were no astronomical libraries in the nearest cities. The greater part of astronomical and technical literature was presented to SAO by the libraries of the observatories of the USSR. Later scientific and technical literature was chiefly supplied from the library of the USSR Academy of Sciences. At the present time the library's stock amounts to over 180 000 units.

The present paper gives a description of the classification system and information service developed at SAO.

2 Classification system of astronomical literature

There are two classifications used in Russia: UDC (Universal Decimal Classification) [1] and LBC (Library-Bibliographic Classification) [2]. UDC meets the following requirements imposed for the classifications: internationality, universality, possibility of reflecting new achievements in science and engineering without major alterations of its structure. The UDC divisions are intimately associated and cover all spheres of knowledge. Astronomy is represented by UDC 52. LBC is a newer classification which reflects the present-day level of science. Astronomy is represented here by LBC 22.6. For classifying literature by natural sciences and engineering we use UDC, while for social sciences LBC is used.

However for classifying astronomical literature many concepts which have appeared in astronomy in the last 20 years are lacking in UDC and LBC. That is why we have developed a very detailed classification system of our own on the basis of UDC 52. It includes new astronomical notions, e.g gravitational lenses, objects of BL Lacertae type, mergers, star formation bursts in galaxies, dark matter in galaxies etc. We have taken from UDC the basis of positioning the numbers and special schedules which are helpful in detailed systematization of literature. From LBC we have taken the divisions which satisfy the scientists, e.g Markarian galaxies, Seyfert galaxies, N-galaxies, nucleosynthesis, model of the Universe etc.

In connection with the continuous advance of science the work over the classification tables has always been a creative process based on the knowledge of general and specific methods of UDC. These tables are constantly added and altered after consultations and discussions with astronomers. For wider information service (catalogues, subject card indices, databases) a combination of "The Astronomy Thesaurus," compiled by R.M. Shobbrook and R.R. Shobbrook [3], and the classification system UDC 52 with alphabetic-subject indicator has been used.

3 Information service

Information service at SAO is chiefly realised by traditional methods (catalogues, card indices, information bulletins, expositions of new entries, surveys, subject expositions etc.). This is due to the remoteness of the Observatory from principal information centers. Because of the financial problems it has been impossible so far to switch to the international information system.

In Fig.1 is presented a block-diagram of the library's activity: 1) sources of incoming books and periodicals; pathway of a book (classification, catalogues, card indices), which is the basis of the creation of database; 3) information service (expositions, surveys, card information, xeroxes). After books and periodicals are catalogued and classified they are displayed as new entries (Fig.1). The exposition is updated every week. Readers of SAO select papers, essays, books displayed and give orders for xeroxes of particular papers and card information of interest. The readers are also provided with information through the journals Astronomiya (Russian), Astronomy and Astrophysics Abstracts.

If the papers requested by the readers are lacking in the library, we order them in Moscow via ILS (Interlibrary Subscription) or their copies at VINITI (Research Institute of Scientific-and-Technical Information). However this is a protracted operation which strongly complicates the work of scientists. The installation of e-mail has considerably remedied the situation. Now we can promptly communicate with the leading information centers in Moscow and abroad and receive the necessary information and the source.

Since 1989 our library has been creating its database in astrophysics. Into the database is entered the classification system of astronomical literature developed at SAO. In the near future we expect to enter into the database "The Astronomy Thesaurus"[3]. A scientist will easily find all the necessary information on a specific problem, object, subject. A local network that unites all the users and the library is created. The introduction of automation will allow us to abandon the traditional methods of library operations and essentially facilitate the information service at SAO.

In the future we hope to switch to the International Information Network. In the last years different foundations, including international, have been extremely helpful in supplying the library of SAO with principal astronomical periodicals, preprints, monographs. We are very grateful to all institutions, observatories and foundations, the International Science Foundation in particular, for the great assistance.

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References

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[2] Library-Bibliographic Classification, Tables: 1980, 1, Moscow.

[3] Shobbrook R.M., Shobbrook R.R.: 1993, The Astronomy Thesaurus.-1.1 Version.Epping.

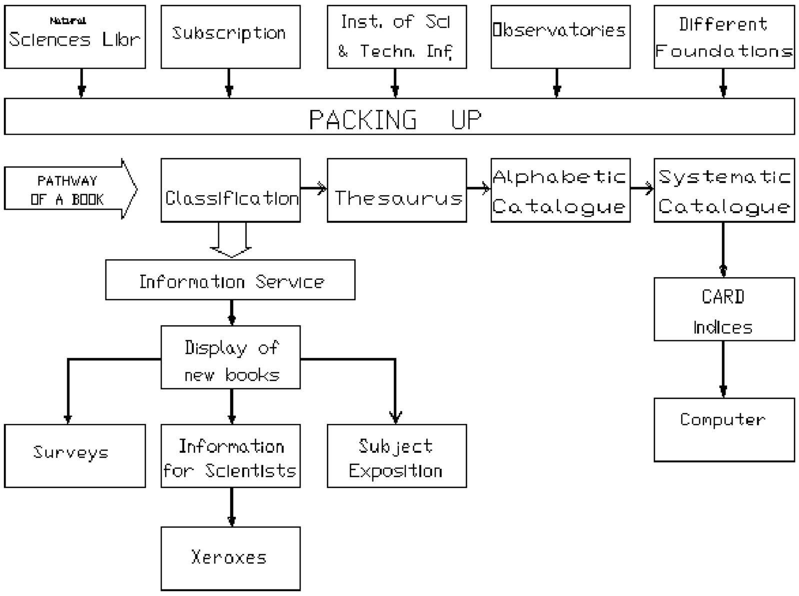

Figure 1: Block-diagram