Publ. Astron. Obs. Belgrade No. 65 (1999), 225 – 226 *Invited paper*

BELDATA – THE ASTRONOMICAL DATABASE OF ASTRONOMICAL OBSERVATORY: PRESENT STATUS AND FUTURE

L. Č. POPOVIĆ, M. S. DIMITRIJEVIĆ, N. MILOVANOVIĆ and N. TRAJKOVIĆ
Astronomical Observatory, Volgina 7, 11160 Belgrade-74, Serbia
E-mail lpopovic@aob.bg.ac.yu

The astronomical database are very important for collection and distribution of astronomical data. A large number of astronomical databases exist in the world. Astronomical Database System has as a goal to provide the fast and easy data exchange between Internet users and database.

We have created the BELDATA – the astronomical database of Astronomical observatory in Belgrade that will include:

1) Stark broadening data set,
2) spectra of AGNs,
3) observation made at Belgrad's Astronomical Observatory,
4) abstracts of papers printed in Serbian Astronomical Journal and Publication of Astronomical Observatory.

Access to the BELDATA is possible through Internet with 24 hour online support on address `http://www.aob.bg.ac.yu/BELDATA`.

The BELDATA system is based on following components:

1. Database (four mentioned segments)
2. HTTPD (Hyper Text Transfer Protocol Daemon) or www server that has role to provide mutual HTML document communication between Internet and local server.
3. MI (Manager Interface) will transform HTML format document from HTTPD in appropriate form for DataBase Manager System.
4. DBMS (DataBase Manager System) is capable for manipulating with the database.

After data processing, DBMS will retrieve the data. The data will be taken by MI, transformed to HTML format document and proceeded by HTTPD over Internet to user.

Query form, which will be fulfilled by an Internet user, have two return option: data needed for laboratory plasma modeling and data needed for stellar plasma modeling. In future, BELDATA will be extended with spectra of active galactic nuclei and solar spectra. New Stark broadening parameter data will be added to the database when calculated. Whole system needs constant maintenance effort. Moreover, we have planned to expand capabilities of DBMS. Presently, it is one executable program which may take the needed data from the database but in the future it will be a complex system with numerous functions. These functions will include various database multiple search options fully configurable within one HTML form controlled by user.