

Center of Nuclear Physics Data (CNPD), RFNC-VNIIEF

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Compilation activity

Four transmission files trans.f046, trans.f047, trans.f048 and trans.f049 were prepared for the EXFOR data library within the past period. They include 42 new entries and 50 revised entries.

Many efforts were made in error correction. Trans.f049 includes the corrected entries only. In most cases “trivial” correction (e.g. changing the Reference code) leads to the total revision of the entry.

Scanning of home journals “Yadernaya Fizika”, “Izvestiya Akademii Nauk” was continued. Articles from old issues of «Physical Review» and «Nuclear Physics» were also reviewed. Much attention was paid to search and compilation of old articles (from 60-s to 90-s) the electronic versions of which are not available. We scan journals referring not only to area F but to other areas as well.

Software

EXFOR-Editor

Development of the basic version of EXFOR-Editor has been completed. Its number is 2.0. This version includes all main modes of data processing. Further development of the program will be related to the error correction and implementation of some additional service requested by users. During this year there were three updates of EXFOR-Editor. The last corrected version 2.3 will be placed on the web-site of CNPD soon. In this version mistakes found by developers and users were corrected. New shot Manual with EXFOR-Editor description was prepared and it would be also placed on the CNPD web-site.

S. Taova and G. Pikulina took part in the workshop “Benchmarking of the Digitization Software”, November 2012, Vienna. The quality of graphic data processing programs is of great importance now as the number of old articles relevant to Exfor compilation is still large. The members of our centre work much trying to improve the software on data digitizing.

G. Pikulina presented main innovations in the program InpGraph according to the users’ feedback. S. Taova reported on future plans in development of digitizing software, initially

related to interface modification. The developers were grateful to Dr.L. Bawitlung (Mizoram Univ., India) who analyzed carefully the advantages and drawbacks of program InpGraph and presented users requests concerning program improvement in his report.

General

Materials illustrating the rules of reaction fields coding (fields SF5-SF8) were chosen from the LEXFOR Manual. Special file system containing pictures was designed to be used in creation of the future Help system. 120 files with graphic information were prepared..

An article by G. Pikulina, S. Taova, and S. Dunaeva “Optimization and ensuring of validation of data input format into the international library EXFOR by software package Exfor-Editor” was published in journal “Vestnik Natsional’nogo Issledovatel’skogo Yadernogo Universiteta “MEPHI””, v. 2, p. 125-128, 2013.

Staff

A new member joined our group last year. We hope that our new colleague will contribute to the compilation activity of the centre.