Online Mathematical Literature Information

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Since the early seventies, online literature information systems have been successfully used in the Western scientific communities as a profitable supplementary tool to classical methods of literature search. For 'current awareness' and SDI (Selected Dissemination of Information) purposes, as well as for retrospective searching, this new (computerized) application has proven its usefulness and its cost-effectiveness and is still being expanded in several directions. Today many universities, research institutes, laboratories and libraries, especially in the US, have a terminal with the possibility of communicating with at least one of the more than 80 hosts, offering hundreds of databases/databanks searchable online.

Since 1980, the possibility of communicating with American and European hosts has also been available at CWI. Since last year most representative databases on mathematics - such as the Mathematical Reviews and the Zentralblatt für Mathematik - are searchable online. Furthermore - from this year on - the Citation Index on Computer Science and Mathematics (ISI-COMPUMATH) is also accessible online. To give a general view of the databases available online which cover mathematical subjects, we give a survey of the possibilities of finding mathematical literature in the following list:

COMPENDEX (COMPuterised ENgineering inDEX) is the online version of the Engineering Index Monthly and covers mainly applied mathematics/mathematical statistics/computer science. (9,600,000 refs. from 1969 to date; monthly update 8400 refs.)

COMPUMATH (COMPUter science and MATHematics citation index) corresponds to the COMPUMATH Citation Index and Current Contents and offers possibilities of online citation from more than 300 'core' journals on these subjects (275,000 refs. from 1976 to date; monthly update 3000 refs.)

INKA-MATH is the online version of the 'Zentralblatt für Mathematik'. (434,200 refs. from 1972 to date; monthly update 4000 refs.)

INIS (International Nuclear Information Service) - the online version of Atomindex - covers applied mathematics. (770,000 refs. from 1970 to date; monthly update 6000 refs.)

INSPEC (International INformation Service for the Physical and Engineering Communities) is the online version of Physical Abstracts, Electrical and Electronics Abstracts and Computer and Control Abstracts. (2,026,000 refs. from 1969 to date; monthly update 14,000 refs.)

MATHFILE   is Mathematical Reviews online. (380,000 refs. from 1973 to date; monthly update 3000 refs.)

NASA   is the product of 2 bi-weekly abstract periodicals: the Scientific and Technical Aerospace Reports (STAR) and the International Aerospace Abstracts (IAA). (1,250,000 refs. from 1962 to date; monthly update 5000 refs.)

NTIS   (National Technical Information Service) of the US Dept. of Commerce covers all scientific and technical research reports sponsored by the US Government. (994,000 refs. from 1964 to date; biweekly update 2500 refs.)

PASCAL   (Programme Appl. à la Selection et à la Compilation Automatique de la Litterature) is the online version of the French abstract journal 'Bulletin Signalétique' - a multidiscipilinairy database of the Centre National de la Recherche Scientifique (CNRS). (3,100,000 refs. from 1973 to date; monthly update 40,000 refs.)

SCISEARCH   (Science Citation Index Online) covers scientific as well as technical disciplines by citation analysis. (Over 3,700,000 refs. from 1974 to date; monthly update 42,000 refs.)

Finally two databases - ERIC (Educational Resources Information Center) and MATHDI (MATHematische DIdaktik) - cover the subject Mathematics Education.

Furthermore there are many databases which are useful for searching other information in relation with mathematics, viz:

Conference Papers   : CPI (Conference Papers Index) & INKA-KONF,

Corporate authorities   : CORP database of ca. 50.000 names and addresses of Scientific Institutes all over the world,

Current Research   : SSIE (Smithsonian Sc. Inf. Exchange) Current Research (in the US) database,

Dissertations/Theses   : CDI (Comprehensive Dissertations Index),

Management & Control : Management Contents,

Mathematical Biology   : BIOSIS (BIOSciences Information Services),

Mathematical Geology   : GEOREF of the American Geology Institute & PASCAL

Mathematical Physics   : SPIN (Searchable Phys. Inf. Notices) & INKA-PHYS,

Mathematical Software : ISD (International Software Database) & PASCAL,

Microcomputers   : Microcomputer Index,

Report Literature   : SIGLE (System for Inf. on Grey Lit. in Europe)

and many other databases covering all kinds of information.