The PHYS Database : A New Cooperation with AAA

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Since 1979 the Fachinformationszentrum Karlsruhe produces the bibliographic database PHYS which covers the worldwide literature in physics. The database is available on STN International. The database contains about 1,2 million citations in all fields of physics ranging from mathematical physics, elementary particles and field theories, nuclear, atomic and molecular physics, optics, acoustics and fluid dynamics, plasma physics, condensed matter physics, materials science, physical chemistry and biophysics up to geophysics, astronomy and astrophysics. The annual update contains more than 120.000 citations. The database is updated bimonthly. All kinds of literature are included from journal articles, conference papers, books and reports up to dissertations. The citations in the database are in English, publications in other languages have translated English title and abstract. Astronomy and astrophysics are covered in PHYS completely as possible. In 1987 there were more than 21.000 citations in these fields. There are many citations which are classified in PHYS into other fields like atomic or plasma physics and optics and which are not numbered to astronomy but may have a specific relevance for astronomers.

In 1988 an agreement was signed between the Fachinformationszentrum Karlsruhe and the Astronomisches Recheninstitut (Heidelberg) to share the input for PHYS and the printed reference journal Astronomy and Astrophysics Abstracts (AAA). This agreement guarantees that from 1989 on all citations in AAA will be included in the PHYS database. Since 1984 to 1988 the overlap in astronomy and astrophysics in both products was between 80% and 95%. The differences were mainly due to the greater number of reports in astronomy in AAA.

Since 1986 the PHYS database uses the same nomenclature for astronomical objects as AAA to designate celestial objects given only in the full text of the publication. These designations are standardized according to the rules worked out by the Astronomisches Recheninstitut.

In Fig. 1 a typical example for a citation in the PHYS database is given. Up to 24 different seachable fields are possible ranging from title (TI), authors (AU) with affiliations and country information, the source (SO), in this case a journal article from *Astronomy & Astrophysics*, an English abstract (AB), a classification code (CC) according to the PACS-classification and controlled terms (CT) out of the PHYS-Thesaurus (hierarchical) with more than 24.000 keywords. The standardized object designations are given as a title augmentation below the title.

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AN 88(20):103185 PHYS
TI New active galactic nuclei from the IRAS deep fields.
IRAS 05261-2040; IRAS 06081-3337; IRAS 06229-6434; IRAS 07384-6713; IRAS 08020+1055; IRAS 10360-0654; IRAS 11402+6641; IRAS 12179+3013; IRAS 12215+1107; IRAS 12295+1413; IRAS 12397+3333; IRAS 13112-2952; IRAS 13556+6951; IRAS 15112+1108; IRAS 15320+2631; IRAS 16168+4742; IRAS 16488+0501; IRAS 16534-0110; IRAS 17258-7622.
AU Keel, W.C.; Grijp, M.H.K. de (Sterrewacht Leiden (Netherlands)); Miley, G.K. (Space Telescope Science Inst., Baltimore, MD (USA))
SO Astron. Astrophys. (Sep 1988) v. 203(2) p. 250-254
ISSN 0004-6361; CODEN AAEJA
CY GERMANY, FEDERAL REPUBLIC OF
DT Journal
TC Experimental
LA English
AB We present the first results of a program to identify new active galactic nuclei from the IRAS pointed observations (AOs), using their far-infrared flux distributions as pointers to objects with a high probability of being active galaxies. These data show that as many as 60% of candidates selected in this way are in fact active nuclei, including both broad- and narrow-line objects. Their redshift distribution is consistent with expectations based on a similar search of the IRAS Point-Source Catalog and the fainter flux limits of the AO data. (orig.)
CC *9850
CT FAR INFRARED RADIATION; RED SHIFT; *IRAS; *ACTIVE GALAXY NUCLEI; RADIATION FLUX; OPTICAL IDENTIFICATION

Figure 1

Much emphasis is given to a high actuality of the citations in PHYS. The database is produced with many special arrangements with publishers to get the journal articles in a very early production stage. The most important US journals are added to the database by a coorperation with the American Institute of Physics (AIP) directly in machine-readable form.

Starting 1989 the AAA classification (CCAA), AAA keywords (CTAA) and the object designations (AO) will be searchable in additional fields.

Besides the STN user manual for PHYS the Fachinformationszentrum Karlsruhe produces some additional user aids for the PHYS database, e.g. user aids in astronomy and astrophysics (including all standardized catalog designations for astronomical objects, greek letter transformations and stellar constellations), the thesaurus and the alphabetic descriptor list, the PHYS classification etc. All these publications are written for online users of the PHYS database and are available on request from the Fachinformationszentrum Karlsruhe.