

Core List of Astronomy Books

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Westford, MA.

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Brief Explanation of the Project

Seal and Martin's *A bibliography of astronomy, 1970-1979* is the last known major undertaking of this kind. These Core Lists of books in astronomy are intended to assist librarians and collection development librarians in building astrophysics collections. Our list also attempts to serve as a resource for researchers and as a guide to teaching faculty in selecting available course readings. The focus of the list is comprised of seven major categories: Abstracts and Indexes, Atlases and Catalogs, Bibliographies, Directories and Encyclopedias, Handbooks and Yearbooks, Texts and Textbooks. Each category consists of several book titles, and in some instances we have provided Internet links to non-profit sites. This year we have removed books that were listed as out-of-print; however, Liz Bryson will maintain a separate list that you may request from her via email. We plan on updating this list every two years and ask that any feedback or comments be submitted on the attached survey and forwarded to Liz at

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ABSTRACTS AND INDEXES

ARIBIB: ARI Bibliographical Database for Astronomical References. Heidelberg, Germany: Astronomisches Rechen-Institut. Retrieved July 9, 2003, from: <http://www.ari.uni-heidelberg.de/aribib/>.

For the literature from 1969-2000, the ARIBIB is based on the information in *Astronomy and Astrophysics Abstracts*. For the older literature from 1899 until 1968, it is based on *Astronomischer Jahresbericht*. For the old literature from ancient epochs until about 1880, it is based on bibliographies published by J. C. Houzeau & A. Lancaster (1882) and by J. J. de Lalande (1803).

arXiv.org e-Print archive. (1991-). Ithaca, NY: Cornell University. Retrieved July 9, 2003, from: <http://www.arxiv.org/>.

Includes, among numerous disciplines, astronomical preprints submitted to the *astro-ph* archive since April 1992. Daily postings of new papers e-mailed upon request. The database is searchable by author, title and abstract keyword and full-text is available.

Astronomischer Jahresbericht (AJB). (1899-1968). Berlin: G. Reimer. Retrieved July 9, 2003, from: <http://www.ari.uni-heidelberg.de/publikationen/ajb/>.

Contains GIF images of *AJB* 1(1899)-68(1968). The author index and chapter titles of all the *AJB* volumes can be searched online in *ARIBIB* database.

Astronomy and Astrophysics Abstracts. (1969-2000). Berlin: Springer. Retrieved July 9, 2003, from: <http://www.ari.uni-heidelberg.de/publikationen/aaa/>.

INSPEC. (1968-). [s. l.]: The Institution of Electrical Engineers (IEE).

Citations and abstracts for physics, computer science, and electronics literature. Available through a variety of commercial interfaces, e.g. the Institute of Physics' Axiom.

The NASA Astrophysics Data System (ADS). Cambridge, MA: Harvard-Smithsonian Center for Astrophysics. Retrieved July 9, 2003, from: <http://adswww.harvard.edu/>.

ADS maintains four bibliographic databases containing more than 3.3 million records: Astronomy and Astrophysics, Instrumentation, Physics and Geophysics, and preprints in Astronomy. It also provides access and pointers to a wealth of external resources, including full-text journal articles, data catalogs and archives.

University of Chicago Press AAS Yellow Pages. Chicago: University of Chicago Press. Retrieved July 9, 2003, from: <http://www.journals.uchicago.edu/AAS/ypages/yp.html>

Advance title list of articles submitted to the journals of the American Astronomical Society.

ATLASES AND CATALOGS

Abell, G. O., Corwin, H. G., & Olowin, R. P. (1989). A catalog of rich clusters of galaxies.

Astrophysical Journal Supplement Series, 70 (1), 1-138.

Also available online with known errata corrected at

<http://spider.ipac.caltech.edu/staff/hgcjr/>

Astrographic catalogue and AC 2000.2. Washington, DC: U.S. Naval Observatory.

Retrieved September 25, 2003, from: <http://ad.usno.navy.mil/ac/>.

Astronomical Data Center: access to astronomy data and catalogs. [s. l.]: NASA.

Retrieved May 20, 2003, from: <http://adc.gsfc.nasa.gov/>

CDS service for astronomical catalogues. Strasbourg: Astronomical Data Center (CDS).

Retrieved September 26, 2003, from: <http://cdsweb.u-strasbg.fr/cats/Cats.htm>

As of September 2003, provided access to "5058 Catalogues... of which 4233 are available on-line (as full ASCII or FITS files)."

Center for History of Physics. [s. l.]: American Institute of Physics. Retrieved September 26,

2003, from: <http://www.aip.org/history/>

Online version of the *International Catalog of Sources for History of Physics and Allied Fields (ICOS)*.

Corwin, H. G., Vaucouleurs, A. de, & Vaucouleurs, G. H. de. (1985). *A southern galaxy catalogue: a catalogue of 5481 galaxies south of declination -17 degrees found on 1.2-m U.K. Schmidt IIIa-J plates*. Austin: Dept. of Astronomy, University of Texas at Austin.

Also available online with known errata corrected at:

<http://spider.ipac.caltech.edu/staff/hgcjr/>

Dibon-Smith, R. (1992). *StarList 2000: a quick reference star catalog for astronomers*.

New York: Wiley.

- Digitized Sky Survey (DSS)*. (1996). [Washington, DC]: Association of Universities for Research in Astronomy; San Francisco, CA: Astronomical Society of the Pacific.
Retrieved September 26, 2003, from: <http://archive.stsci.edu/dss>
Photographic archive of the National Geographic Society-Palomar Observatory Sky Survey (a survey of the northern sky). The data are also available in CD-ROM format: RealSky CD Northern Sky on 8 CD-ROMs.
- Dreyer, J. L. E., & Sinnott, R. W. (1988). *NGC 2000.0: complete new general catalogue and index: catalogues of nebulae and star clusters*. Cambridge, MA: Sky Publishing.
- Greeley, R. & Batson, R. M. (1997). *The NASA atlas of the solar system*. Cambridge: Cambridge University Press.
- Hoffleit, D., & Jaschek, C. (1982). *The bright star catalogue* (4th rev. ed.). New Haven: Yale University. Department of Astronomy.
- Hogner, W., Richter, O. G. (1979). *Isophotometric atlas of comets* (Vols. 1-2). New York: Springer.
- Jones, K. G. (1991). *Messier's nebulae and star clusters* (2nd ed.). New York: Cambridge University Press.
- Kepple, G. R. & Sanner, G. W. (1998). *The night sky observer's guide* (Vols. 1-2). Richmond, VA: Willmann-Bell.
- Kholopov, P. N. & Samus, N. N. (Eds.). (1985-1995). *General catalog of variable stars* (4th ed., Vols. 1-5). Cambridge, MA: American Association of Variable Star Observers (AAVSO).
As of May 2003, five volumes of this edition of the *General catalogue of variable stars* have been published. The AAVSO has volumes 3, 4, and 5 for sale.
<http://vizier.cfa.harvard.edu/viz-bin/VizieR?-source=II/214A>
- Moore, P. & Hunt, G. (1997). *Atlas of the solar system* (Rev. ed.). London : Chancellor Press.
- NASA/IPAC Extragalactic Database (NED)*. Pasadena, CA: Jet Propulsion Laboratory: California Institute of Technology.
Retrieved September 26, 2003, from: <http://ned.ipac.caltech.edu/>
As of May 2003, access was provided to:
- 10.6 million names
 - 7.4 million objects
 - 2.2 million references to 53,500 papers
 - 20.3 million photometric measurements
- Norton, A. P. & Ridpath, I. (Eds.). (1998). *Norton's star atlas and reference handbook (epoch 2000.0)* (19th ed.). Harlow, England: Longman.

RealSky South: The Digitized Southern Sky Survey on 11 CD-ROM. (1997). [Washington, DC]: Association of Universities for Research in Astronomy, Inc.; Astronomical Society of the Pacific. The data are also available in CD-ROM format: RealSky CD Southern Sky on 10 CD-ROMs: <http://www.astrosociety.org/>

Sandage, A. & Bedke, J. (1994). *Carnegie atlas of galaxies* (Vols. 1-2). Washington, DC: Carnegie Institution Press.

SIMBAD astronomical database. Strasbourg, France: Centre de Données astronomiques de Strasbourg. Retrieved September 26, 2003, from: <http://cdsweb.u-strasbg.fr/Simbad.html>
“SIMBAD contains information for about 1 million objects, for which 3.3 million identifiers, more than 1.5 million observational measurements and 1.4 million bibliographical references are available.” For faster access in the US, use the SIMBAD mirror site: <http://simbad.harvard.edu/>

Sinnott, R. W. & Perryman, M. (1997). *Millennium star atlas: an all-sky atlas comprising one million stars to visual magnitude eleven from the Hipparcos and Tycho catalogues and ten thousand nonstellar objects* (Vols. 1-3). Cambridge, MA: Sky Publishing.

SkyView: the Internet’s virtual telescope. [s. l.]: NASA. Retrieved September 26, 2003, from: <http://skyview.gsfc.nasa.gov/>.
“SkyView is a virtual observatory on the Net generating images of any part of the sky at wavelengths in all regimes from radio to gamma-ray.”

Sloan Digital Sky Survey.
Retrieved September 26, 2003, from: <http://www.sdss.org/>.
“... the most ambitious astronomical survey project ever undertaken. The survey will map in detail one-quarter of the entire sky, determining the positions and absolute brightnesses of more than 100 million celestial objects. It will also measure the distances to more than a million galaxies and quasars.”

Strong, R. A., Sinnott, R. W. (2000). *Sky atlas 2000.0 companion* (2nd ed.). Cambridge, MA: Sky Publishing; Cambridge: Cambridge University Press.
"Descriptions and data for all 2,700 star clusters, nebulae, and galaxies shown in *Sky atlas 2000.0* (2nd ed.), by Wil Tirion and Roger W. Sinnott".

Tirion, Wil., et al. (2001). *Uranometria 2000.0 Deep Sky Atlas* (Vols. 1-2). Richmond, VA: Willmann-Bell.

Tirion, Wil., & Sinnott, R. W. (1998). *Sky atlas 2000.0: twenty-six star charts, covering both hemispheres, and seven detailed charts of selected regions* (2nd ed.). Cambridge, MA: Sky Publishing; Cambridge: Cambridge University Press.

United States Virtual Observatory. Retrieved May 10, 2003, from: <http://us-vo.org/>
Five-year project funded by the National Science Foundation to “unite astronomical databases of many earthbound and orbital observatories...”

Vaucouleurs, G. H. de, Vaucouleurs, A. de, Corwin, H. G., Buta, R. J., Paturel, G. & Fouqué, P. (1991). *Third reference catalogue of bright galaxies* (Vols. 1-3). New York: Springer. Also available online with known errata corrected at:
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<http://lcweb2.loc.gov/sctb>.

DICTIONARIES

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Ridpath, I. & Woodruff, J. (1996). *Cambridge astronomy dictionary*. Cambridge: Cambridge University Press.

Shobbrook, R. R. & Shobbrook, R. M. (Compilers). (1993, 1995). *The astronomy thesaurus*. (In English, French, German, Italian, and Spanish.). Retrieved September 26, 2003, from:
<http://msowww.anu.edu.au/library/thesaurus/>

DIRECTORIES

AIP Directory of Organizations with Physics, Astronomy and Geophysics Staff. (1998). College Park, MD: American Institute of Physics.

AstroWeb: Astronomy/Astrophysics on the Internet. Institute of Astronomy: The University of Cambridge. Retrieved September 26, 2003, from http://www.ast.cam.ac.uk/astroweb/yp_astronomy.html
“...a collection of pointers to astronomy-related information available on the Internet.... The AstroWeb master database currently contains 3079 distinct resource records...”

Corwin, H.G., Jr. *Selected astronomical catalogues and online data services*. California Institute of Technology. Retrieved September 26, 2003, from: <http://spider.ipac.caltech.edu/staff/hgcjr/>
Note: Web site provides access to corrected versions of the following print catalogs:
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International Astronomical Union on-line membership directory.
Retrieved September 26, 2003, from: http://www.iau.org/cgi-iau/iau_mem.cgi

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Note from GOOGLE: “A comprehensive catalog of scientific resources and media worldwide but especially in German and English: Directories of astronomy journals; Astronomy-related catalogs of scientific search engines; Additional starting points and sites of special interest.”

Project Pluto.
Retrieved September 26, 2003, from: <http://www.projectpluto.com/datasets.htm>
Provides listings, with comments, for databases available on CD-ROMs or online. *Project Pluto* sells the star charting program *Guide CD-ROM Star Chart*, which works with numerous databases.

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HANDBOOKS AND YEARBOOKS

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- Zombeck, M. V. (1990). *Handbook of space astronomy and astrophysics* (2nd ed.). Cambridge: Cambridge University Press. Also available online.

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 QB472.A54
- Akasofu, S.-I. & Chapman, S. (1972). *Solar-terrestrial physics : an account of the wave and particle radiations from the quiet and the active sun, and of the consequent terrestrial phenomena*. Oxford: Clarendon Press.
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- Albrecht, M. & Egret, D. (Eds.). (1991). *Databases & on-line data in astronomy*. Dordrecht: Kluwer Academic.
 QB51.3.E43 D38
- Arnett, D. (1996). *Supernovae and nucleosynthesis: an investigation of the history of matter, from the big bang to the present*. Princeton, NJ: Princeton University Press.
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QB603.A85 O75
- Babu, G. J., & Feigelson, E. D. (1996). *Astrostatistics*. London: Chapman & Hall.
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- Bakich, M. E. (1995). *Cambridge guide to the constellations*. Cambridge: Cambridge University Press.
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QC809.F5 C67
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QB351.D3
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QB479.5.D4
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QB843.B55 B63
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QB362.M3 D53
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QC173.55.D56

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