



User Manual: www.ency-astro.com

How to Use The Encyclopedia of Astronomy and Astrophysics

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Introduction

What is The Encyclopedia of Astronomy and Astrophysics?

The *Encyclopedia of Astronomy and Astrophysics* (EAA) provides a complete source of information on the two complex disciplines of astronomy and astrophysics. It is the only reference work to cover both fields in such depth, and combines meticulous research with a highly indexed and cross-reference online format. www.ency-astro.com enables users to search the complete text and features sophisticated search facilities, extensive linking and continuous updating.

The *Encyclopedia of Astronomy and Astrophysics* combines the strengths of Dr Paul Murdin, two respected publishers, distinguished Editorial and Advisory Boards and of more than 800 experts in their respective fields to create this unparalleled event in scientific publishing. EAA explains 30 different subject areas in all their range and complexity. Comprising 2,493 articles, a total of 2.5 million words, The *Encyclopedia of Astronomy and Astrophysics* combines accessibility with unrivalled scope and authority.

EAA also offers unique article organisation making these complex subject areas accessible to a broad range of users. Each article spans its subject matter at a range of levels, becoming increasingly specialised as the article progresses. Each long article includes a bibliography which will guide users in moving forward and accessing key sources in the primary literature and further reading.

Extensive indexes are included for over 14,000 entries making it easy for the user to expand or refine searches, combining user-friendly accessibility with continually updated information ensuring that this incredible resource will continue to provide all astronomers and astrophysicists around the globe with the information they need.

Who would use The Encyclopedia of Astronomy and Astrophysics?

The *Encyclopedia of Astronomy and Astrophysics* combines unrivalled authority with exceptional accessibility for a variety of users. Our broad range of potential users includes:

- **Astronomers and Astrophysicists** will rely on the *Encyclopedia* as a scholarly introduction to fields outside their own expertise.
- **Students** will find the *Encyclopedia* invaluable for project work and background reading
- **Teachers** will use the *Encyclopedia* to enhance their own research for lessons or assigned reading.
- **Librarians** using the *Encyclopedia* can help their patrons answer thousands of questions in all areas of astronomy and astrophysics, and quickly direct them to further reading.
- **Researchers and Professionals in Other Fields**, such as history, biology, physics and meteorology will find the *Encyclopedia* an ideal scholarly introduction to related or unfamiliar disciplines.
- **Amateur Astronomers** will welcome the quick definitions and facts and will appreciate the substantial articles that can answer their questions and enhance their knowledge and appreciation of astronomy.

What areas does The Encyclopedia of Astronomy and Astrophysics Cover?

As far ranging as the subjects it covers, The *Encyclopedia of Astronomy and Astrophysics*, in both the print and online editions, presents definitive coverage of 30 major subject areas:

- | | | |
|------------------------|-----------------------|------------------------|
| • Active galaxies | • Education | • Public impact |
| • Astrometry | • Galaxies | • Solar activity |
| • Astrophysical theory | • Heliosphere | • Solar heliosphere |
| • Atmospheres | • History | • Solar interior |
| • Binary stars | • Instrumentation | • Solar systems |
| • Biography | • Interstellar medium | • Space |
| • Clusters | • Light | • Stellar astrophysics |
| • Coordinates | • Magnetosphere | • Stellar populations |
| • Cosmology | • Matter | • Telescopes |
| • Earth | • Planet earth | • Time |

A full contents list and list of new and updated articles recently added to the online edition, can be viewed at http://www.macmillanonline.net/eaa/Coverage_fulllist.htm

For further information visit <http://www.macmillanonline.net/eaa/index.htm>

Entering the Site

Go to the gateway page, www.ency-astro.com. With IP address verification, you will gain immediate access to The *Encyclopedia of Astronomy and Astrophysics* homepage. Alternatively if username and password login is necessary, go to "Subscriber Login" and enter your login details, click enter and this will bring you to the homepage.

Searching the Site

Quick Search

The search box at the top right hand corner of the screen is for free-text article searches. A quick search will locate an article by title, simply type the title in the search bar.

Article Search

From the home page, click on the term "Search" located at the top left hand side of the screen. Use this page to search through all EAA article content for a specific article. You can use this search page to search by article title, author, illustration or free text. The search page automatically defaults to search by article title.

Select one of the following search fields by clicking on the circle to the left of your choice (Title, Author, All Text, or Illustration), so that a black dot appears.

Type your search term(s) for which you are searching directly into the first or both boxes at the centre of the screen. If you wish you can pick a Boolean option (and, or, not), to link them. Check the Exact Match box to restrict your search to the exact words as entered in the boxes.

Notes:

To search for multiple words or a phrase, simply type them into the text box. For example, active galaxies will find instances of both words together, exactly as typed.

EAA uses British spelling. Although this is irrelevant for the majority of searches, please be aware of spellings such as "colour", "ageing", and "kilometre". See the "help" option at the top of the screen for more info.

Variations in Searching

Author Search

To search for an EAA author type the last name for which you are searching into the search box and click on the circle to the left of "Author" so that a black dot appears. Then click on "Search" to the right of the search box. This takes you to your search results.

Illustration Search

To search for an EAA illustration type the name of the image for which you are searching into the search box and click on the circle to the left of "Illustration" so that a black dot appears. Then click on "Search" to the right of the search box. This takes you to your search results.

All Text Search

If you find no results using the Article search facility, try the more thorough All Text Search. This searches the entire text of EAA for every mention of your chosen search term.

On the Search Page, enter your subject in the search box in the centre of the screen and click on the circle next to "All Text " so that the black dot appears. Click on "Search" to the right of the search box. This takes you directly to your search results.

You may also perform quick all text searches from the search box found in the top, right corner of every screen. Don't forget to put multiple word searches in quotation marks.

Search Results

The search results are given in order of relevance to the inquiry and each subject article begins at a basic level of understanding and progresses to higher levels of complexity, making the encyclopedia accessible to a wide range of users.

Alternate Methods of Searching

Advanced Search

This Advanced Search page can be used for more complex Boolean searches. Use the two text boxes in the centre of the screen, and select AND, OR, NOT, or NEAR as appropriate. You can search on multiple sections to yield more precise search results.

Reference Search

Search the reference and further reading lists of The *Encyclopedia of Astronomy and Astrophysics* articles for specific journal references, book references, or the whole reference list. To search for journals, fill out one or more of the boxes in the centre of the screen (not including "Publisher"). To search for books, fill out one or more of the boxes below (not including "Title").

Saved Searches

EAA enables users to personalize the site. Articles and illustrations can be bookmarked, and organized into customizable folders. Complex search criteria can be saved making them quick and easy to re-run. To gain access to My EAA you will need a user name and password. If you are accessing the main site via user name and password you still need to register separately as a *My EAA* user. If you do not have a *My EAA* user name and password, you will need to register through the site. If you have previously registered for *My EAA*, enter your user name and password in the boxes at the centre of the screen.

Subject Browse

This feature allows you to search within any of the core subject areas by narrowing their focus until you find the article you're looking for. Click on "Browse" at the top of the screen next to "Search".

Browse the titles of articles within the context and across the 30 major subject areas (or "hierarchies") that together form a network covering all the material in EAA. Terms within the network comprise article titles and also grouping terms; terms that are not article titles themselves, but form part of the hierarchical structure.

A-Z Browse

This function allows you to search the whole of EAA for articles in two distinct methods. The first is to search all of the article titles beginning with a specific letter of the alphabet. By simply clicking on any letter of the alphabet as seen near the centre of this page, you are instantly provided with a complete list of every article beginning with that letter.

Alternately, A-Z Browse also works well if you are unsure of the spelling of an article title. By typing in the first few letters of the article title and then clicking "Go to", a listing of all articles beginning with those letters is provided. This method of searching is also excellent if you are unsure of the definition of a subject area or topic.

Subject Browse

To browse articles by subject category, click on your chosen subject within this browse option, or click on the arrow to expand the list. An A-Z list of the articles in that subject category will appear, from which you

can click to go direct to the full text of an article. Please note that this section of the site is currently being developed further, and some categories will be changed and refined.

Contributor Browse

This function allows you to locate a contributor's article by its heading, and can be done in two different ways. The first is to click on the first letter of the contributor's name for which you are searching. A list of contributors beginning with that letter will appear. Selecting any contributor will show all the articles that have been provided by them.

Alternately use the "Go to" box to move through the list to a specific place. Type in the first few letters of the contributor's name and press the "Go to" button.

Tips for Viewing an Article

- Once you have clicked on an article title from your search results, the article will appear with the title at the top, as well as the name(s) of the author(s), and the publication date.
- Read the complete text of the article by scrolling up or down using the single arrows at the top and bottom of the screen on the far right-hand side.
- To the left of the article's text is its Table of Contents. You can link directly to any section of the article by clicking on that section in the Table of Contents.
- Located directly above the Table of Contents are three terms: "contents", "figures", "tables", "related articles" and "more information". If you click on "figures" the Table of Contents on view will be replaced by a list of figures for that particular article. By clicking on a figure, a new window will open containing the picture and its caption. To close the figure, simply click on the 'x' at the top right of the figure's window.
- To see if the article contains any tables, related articles or further information, select and click, then follow above-mentioned instructions.

Feedback

The "Feedback" link and function is provided for you to let us know what you think of the site, of special difficulties you may have encountered, features you find particularly useful, or subject areas you feel could be expanded upon. Please do not hesitate to contact us regarding any aspect of the site.

Links

This page offers links to EAA content-related links and other important astronomical sites including images, surveys, publications, conferences and meetings, databases and search engines. As EAA continues to develop, further sites will be added, all evaluated by our editorial staff and scientific advisers and held to the same exacting editorial criteria as EAA itself.

Updates and New Content

EAA is a dynamic reference resource that will expand and evolve as the subject itself expands and evolves. A major ongoing programme of expansion and updating has been launched, with the goal of updating approximately 20% of the content every year.

The following **completely new articles**, extending the scope of the original EAA, were added to the site on 23 July 2001:

- Birkeland, Kristian
- BOOMERANG and its results
- Cataclysmic variables: the magnetic systems
- Colombo, Guiseppe
- Comet LINEAR
- Hobby-Eberly telescope
- South African Astronomical Observatory: 1972 to present
- Star of Bethlehem
- Telescopes of the future

Amended or revised versions of the following articles were added to the site on 23 July 2001:

- Aristotle
- Art and Literature
- ASCA (Advanced Satellite for Cosmology and Astrophysics/Astro-D)

For support simply click the "Help" button at the top right of www.ency-astro.com or contact us directly at e-mail: reference@macmillan.com.au

- Asteroids
- Astronomy and Astrophysics in India
- BeppoSAX (Satellite for X-ray Astronomy)
- Blaauw, Adriaan
- Black Hole
- Cluster Membership
- COBE (Cosmic Background Explorer)
- Comet Hale-Bopp
- Cosmic Microwave Background
- Cosmic Rays
- Cosmic Rays: Extensive Air Showers
- Distribution of Galaxies, Clusters, and Superclusters
- Dusty Circumstellar Disks
- Eclipse
- Eros
- Europa
- Exoplanets
- Extrasolar Planetary Companions and Brown Dwarfs
- Galactic Open Clusters
- Galileo Mission to Jupiter
- Hewish, Antony
- Information Handling in Astronomy
- Jupiter: Magnetosphere
- Kepler's Laws
- Kuiper Belt
- Maclear, Thomas
- Magnetosphere of Earth
- Magnetosphere of Earth: Substorms
- Mars
- Mars: Atmosphere
- Mars: Surface
- McDonald Observatory
- Multiple Mirror Telescope Observatory
- NEAR
- Neutron Stars
- Nuclear Processing
- Occultation
- Saturn
- Saturn: Satellites
- South American Astronomy
- Space Instrumentation: Imaging Interferometry
- Space Research Institute
- Stellar Evolution
- Stellar Masses M Keck Observatory

The following **new articles** are also in the preparation. Please revisit

http://www.macmillanonline.net/eaa/Coverage_whatsnew.htm frequently for the latest status:

- Active galactic nuclei: parsec radio structure
- Archaeoastronomy
- Astronomical distance scale
- Astronomy of the North American Indians
- Dating events in the solar system
- Early-type stars as tracers of stellar and galactic evolution
- Motions of nearby galaxies
- Mars: oceans, valleys and climate
- Mass extinctions, volcanic upheavals and continental break-up
- Stellar distributions
- Supernovae as cosmological probes
- Magnetosphere of Earth: magnetosheath

Technical support

Browsers

Your browser must be running at least Internet Explorer 4.0 or Netscape 4.0. If you are not running this you will see marked reduction in functionality, for example constant "Java script errors" or inability to view the "image" or "content" boxes. The IT department of your institution will be able to upgrade you or alternatively you can upgrade your browser *free of charge* from either www.microsoft.com or www.netscape.com.

Screen Resolution

Your screen resolution should be set to 800 x 600 pixels. This is the optimum resolution for www.ency-astro.com Although this will not affect the functionality of the product, it will create some problems in viewing the pages. For example, can you see your "Help" button in the bottom left-hand corner of the screen? To change the screen resolution go to your window display area, which is usually found under "settings".

Cache Blockers

For your IT staff, www.ency-astro.com has a cache-blocker on the gateway page, thereby preventing IP access if you are using a cache on your server. If so, please bypass the cache for use of this site. Our cache-blocker ensures all information from our site, received by you, is the most up to date possible.

Proxy Servers

If your registration is coming through an institutional proxy server or firewall and is affecting your access to www.ency-astro.com we may need to register both the IP address of your own computer and the address of your proxy server. Your IT department should be able to provide you with the IP address of the proxy server.

Firewalls and Special Caches

If your institution runs a Firewall or Special Cache, this may cause our host site to read a different IP address to that you have supplied. If the IP address is read differently, you will be asked for username and password login even though you have been set up for access via IP.

If the IP address our registration system is reading from you may be different from the one you provided, you may be browsing through a firewall or cache. Your institution will then need to bypass the firewall or cache, or provide the IP address of the firewall. You will need to speak with your IT department for assistance.

Local Internet Cache

If you have not recently cleared your local Internet cache, you may experience general difficulties with the quality of your online access. You may also find that access to www.ency-astro.com is slow. A basic first step is to ensure that you have cleaned out your cache, as a full cache can slow performance down.

- To clear your cache in Internet Explorer, go to "View" in your browser toolbar and then "Internet Options". You will then see the option to clear temporary files and clear history. It would be advisable to keep both as clear as possible at all times.
- To clear your cache in Netscape, go to "Edit" in your browser toolbar then choose "Preferences". From the menu that is displayed choose "Advanced" and then the sub-heading "Cache" and you can then clear both your "memory cache" and "disc cache".
- To clear any incorrectly saved cookies, go to your "C Drive", open the "Windows" folder. Click on either your "Cookies" or "Temporary Internet Files" folder. Search for any Astro cookies and URL's then delete.

Are you still having problems accessing the site?

To determine your external IP address <http://network-tools.com/>
(Your IP is the one listed in the text field just above the Submit button.)

Or use this Online Test Tool <http://omicron.ingenta.com/acs/acs/frontpage.html>

Please copy the information and report your findings to reference@macmillan.com.au

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| <p>If you are still encountering problems, or if you have any questions please contact us immediately.</p> |
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At all times, we are available at reference@macmillan.com.au to provide help.