Women in Astronomy:
An Introductory Resource Guide to Materials in English

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This guide is not meant to be a comprehensive or scholarly introduction to the complex topic of the role of women in astronomy, but simply a resource for those educators and students who wish to explore the challenges and triumphs of women of the past and present. It’s also an opportunity to get to know some of the key women who have overcome prejudice and exclusion to make significant contributions to our field. To be included among the representative women for whom we list individual resources, an astronomer must have had something non-technical about her life and work published in a popular-level journal or book. This explains why so many talented women are not covered; their work is mainly known through journals that students cannot read. Suggestions for additional non-technical listings are most welcome, however.

1. Written Resources on the General Topic of Women in Astronomy


James, C. “Edward and Mina” in Astronomy, July 2002, p. 46. Despite the title, this treats several women who worked at the Harvard Observatory.


McKenna-Lawlor, Susan Whatever Shines Should be Observed. 2003, Springer. The story of five 19th century women who made contributions to astronomy and science; too bad the price from the publisher is inappropriately high for a popular book.


2. Web Resources on the General Topic of Women in Astronomy

American Astronomical Society Committee on the Status of Women: www.aas.org/~cswa/
   A rich site with back issues of the valuable “Status” newsletter, a database of living women astronomers, legal resources, conference proceedings, and discussion of issues related to the role of professional women in the field.
   A far more comprehensive and scholarly bibliography, organized by last name, of written articles on women in astronomy. Ruth Freitag’s work was the early inspiration for the resource guide you are reading.
Contributions of Women to the U.S. Naval Observatory:
   http://maia.usno.navy.mil/women_history/history.html
   A paper by Merri Sue Carter on some rather obscure women astronomers who worked at the observatory before 1920.
4000 Years of Women in Science: http://www.astr.ua.edu/4000WS/
   Maintained by two women astronomers, this site includes brief information on women from many fields of science, not just astronomy. Their site ends with the start of the 20th century, but see also the much shorter “Contributions of 20th Century Women to Physics” at:
   http://cwp.library.ucla.edu/
History of Women in Astronomy: http://astro.berkeley.edu/~gmarcy/women/history.html
   The text and images from a slide set on women astronomers available from the Astronomical Society of the Pacific. Includes capsule biographies of women from Carolyn Herschel to Sidney Wolff.
The Woman Astronomer: http://www.womanastronomer.com/
   Debra Davis, a Colorado amateur astronomer, keeps this site and newsletter devoted to both amateurs and professionals.
Women of NASA: http://quest.nasa.gov/women/WON.html
   Profiles of women who work for the US Space Agency, including a number of astronomers and astrobiologists. The profiles include personal statements that can be quite moving and inspiring.
Women at Work: A Meeting on the Status of Women in Astronomy:
   http://www.stsci.edu/institute/conference/wia/
   Proceedings of a pioneering 1992 meeting with useful local and national perspectives.

3. Material on Some Specific Women Astronomers of the Past

Cannon, Annie (1863-1941)


**Web Sites:**

Annie Cannon Pages at Wellesley College: [http://www.wellesley.edu/Astronomy/Annie/](http://www.wellesley.edu/Astronomy/Annie/)

Part of a student project, but with good local historical information.

Brief Biography at ScienceWomen Site: [http://www.sdsc.edu/ScienceWomen/cannon.html](http://www.sdsc.edu/ScienceWomen/cannon.html)

Brief Biography from the ASP’s Women in Astronomy Slide Set: [http://cannon.sfsu.edu/~gmarcy/cs/women/history/cannon.html](http://cannon.sfsu.edu/~gmarcy/cs/women/history/cannon.html)


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**Clerke, Agnes** (1842-1907)


McKenna-Lawlor, Susan *Whatever Shines Should be Observed*. 2003, Springer. The story of five 19th century women who made contributions to astronomy and science, including Clerke.


**Web Sites:**

Brief Biography from the Catholic Encyclopedia: [http://www.newadvent.org/cathen/04051b.htm](http://www.newadvent.org/cathen/04051b.htm)

**Fleming, Williamina** (1857-1911)


**Web Sites:**

Brief biography at about.com: [http://space.about.com/od/astronomerbiographies/a/wflemingbio.htm](http://space.about.com/od/astronomerbiographies/a/wflemingbio.htm)

Brief biography at Harvard Women Working site: [http://ocp.hul.harvard.edu/ww/people_fleming.html](http://ocp.hul.harvard.edu/ww/people_fleming.html)

Brief biography at Woman Astronomer site: [http://www.womanastronomer.com/wfleming.htm](http://www.womanastronomer.com/wfleming.htm)

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**Herschel, Caroline** (1750-1848)

Alic, Margaret *Hypatia’s Heritage: A History of Women in Science*. 1986, Beacon Press. Chapter 9 has a good section on Herschel’s work.


Hoskin, Michael, ed. *Caroline Herschel’s Autobiographies*. 2003, Science History Publications. Annotated versions of the autobiographies she wrote in her 70’s and 90’s.


**Web Sites:**

Biography at MacTutor Site: [http://www-groups.dcs.st-and.ac.uk/~history/Biographies/Herschel_Caroline.html](http://www-groups.dcs.st-and.ac.uk/~history/Biographies/Herschel_Caroline.html)

Brief biography at Cometography site: [http://cometography.com/biographies/herschelc.html]

Maria Mitchell’s Reminiscences about Caroline Herschel from 1889: [http://womenshistory.about.com/library/etext/bl_mitchell_herschel.htm]

Brief Biography from the ASP’s Women in Astronomy Slide Set: [http://astro.berkeley.edu/~gmarcy/women/herschel.html]


Flanders, Tony “Following in Caroline Herschel’s Footsteps” (a guide to re-observing some of the objects she saw, for amateurs): [http://www.skyandtelescope.com/observing/Caroline_Herschel_Objects.html]


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Hoffleit, Dorrit (1907 - 2007)


Web Sites:

Brief Biography at AAVSO site: [http://www.aavso.org/aavso/membership/dhoffleit.shtml]

Obituary by Virginia Trimble: [http://adsabs.harvard.edu/abs/2007BAAS...39.1067T]


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Hogg, Helen Sawyer (1905-1993)


Web Sites:
Obituary from the Journal of the Royal Astronomical Society of the Canada: 
http://www.astro.utoronto.ca/hsh/hshrasc.html
Obituary from the Publications of the Astronomical Society of the Pacific:
http://www.astro.utoronto.ca/hsh/hshpasp.html
Brief Biography at Science Women Site: http://www.sdsc.edu/ScienceWomen/hogg.html
Her career highlights summary at U. of Toronto: http://www.astro.utoronto.ca/hsh/hshhigh.html
Talk about her by Tom Bolton: http://www.astro.utoronto.ca/hsh/hshbln.html
Brief Biography at Canada Under the Stars: http://astro-canada.ca/_en/a2206.htm
Transcript of an Interview with David DeVorkin at the Center for the History of Physics:
http://www.aip.org/history/ohilist/4679.html
Very brief autobiography at the Canada Science & Technology Museum:
http://www.sciencetech.technomuses.ca/english/about/hallfame/u_i33_e.cfm

Huggins, Margaret (1848-1916)
Bruck, Mary Agnes Mary Clerke & the Rise of Astrophysics. 2002, Cambridge U. Press. See Chapter 5 and several other sections about Margaret Huggins’ work and relationship with Clerke.
McKenna-Lawlor, Susan Whatever Shines Should be Observed. 2003, Springer. The story of five 19th century women who made contributions to astronomy and science, including Huggins.
Richardson, Robert "Lady Huggins" in The Star Lovers. 1967, Macmillan.

Web Site:
Barbara Becker’s article: https://eee.uci.edu/clients/bjbecker/ExploringtheCosmos/week7b.html

Leavitt, Henrietta (1868-1921)
Ferguson, Kitty Measuring the Universe. 1999, Walker. Chronicle of how distances were found in the universe, with good discussions of contributions by individual astronomers.
Singh, Simon Big Bang. 2004, Harper. Chapter 3 has a nice section on her life and work.

Web Sites:
Biography at AAVSO Site: http://hoa.aavso.org/posterswan.htm
Brief Biography at PBS Science Odyssey: http://www.pbs.org/wgbh/aso/databank/entries/baleav.html
Brief Biography at Woman Astronomer Site: http://www.womanastronomer.com/hleavitt.htm
Brief Biography from the ASP’s Women in Astronomy Slide Set: http://astro.berkeley.edu/~gmarcy/women/leavitt.html

Maury, Antonia (1866-1952)

Web Site:
Biography on the Woman Astronomer site: http://www.womanastronomer.com/amaury.htm

Mitchell, Maria (1818-1889)
Wright, Helen Sweeper in the Sky: The Life of Maria Mitchell. 1950, Macmillan. (Recently updated and reprinted by College Avenue Press.)

Web Sites:
Brief Biography at Distinguished Women Web Site: http://www.distinguishedwomen.com/biographies/mitchell.html
Brief biography at the Maria Mitchell House Preservation Web Site: http://www.nps.gov/history/nr/travel/pwwmh/ma74.htm
Brief Biography at Women Working Web Site: http://ocp.hul.harvard.edu/ww/people_mitchell.html
An 1889 Letter from one of her Students at the Time of her Death: http://womenshistory.about.com/library/etext/bl_marla_mitchell.htm
Brief Biography from the ASP’s Women in Astronomy Slide Set: http://astro.berkeley.edu/~gmarcy/women/mitchell.html
Her Entry in the Vassar Encyclopedia: http://vcencyclopedia.vassar.edu/index.php/Maria_Mitchell

Payne-Gaposchkin, Cecilia (1900-1979)


Web Sites:

Brief Biography at Harvard Square Library Page:  

Two Excellent Articles on her Work and Life:  
[http://www.harvardsquarelibrary.org/unitarians/payne2.html](http://www.harvardsquarelibrary.org/unitarians/payne2.html)

Biographical Outline at UCLA Contributions of Women to Physics Page:  
[http://www.physics.ucla.edu/~cwp/Phase2/Payne-Gaposchkin_Cecilia_Helena@861234567.html](http://www.physics.ucla.edu/~cwp/Phase2/Payne-Gaposchkin_Cecilia_Helena@861234567.html)

Brief Biography and Story of her Centenary Celebrations:  

Brief Biography from the ASP’s Women in Astronomy Slide Set:  
[http://astro.berkeley.edu/~gmarcy/women/cecilia.html](http://astro.berkeley.edu/~gmarcy/women/cecilia.html)

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**Roberts, Dorothea Klumpke** (1861-1942)


Web Sites:

Biography by Don Stone: [http://www.aanc-astronomy.org/articles/dorothea.html](http://www.aanc-astronomy.org/articles/dorothea.html)

About her Pioneering Balloon Flights: [http://leonids.arc.nasa.gov/Klumpke.html](http://leonids.arc.nasa.gov/Klumpke.html) and [http://www.whiteoaks.com/jane/leonidklumpke/dorothea.txt](http://www.whiteoaks.com/jane/leonidklumpke/dorothea.txt)

Brief Biography on SMSO site: [http://www.smso.net/Dorothea_Klumpke-Roberts](http://www.smso.net/Dorothea_Klumpke-Roberts)
Sitterly, Charlotte Moore (1898-1990)


Web Sites:
Profile connected with the Bruce Medal:  
http://www.phys-astro.sonoma.edu/BruceMedalists/Sitterly/index.html
Biography on Answers.com: http://www.answers.com/topic/charlotte-moore
Brief Biography from the World Encyclopedia of Biography:  
http://www.bookrags.com/biography/charlotte-moore/
Obituary from Physics Today:  
http://ptonline.aip.org/getpdf/servlet/GetPDFServlet?filetype=pdf&id=PHTOAD000044000001400001&idtype=cvips

Somerville, Mary (1780-1872)

Alic, Margaret Hypatia’s Heritage: A History of Women in Science. 1986, Beacon Press. Chapter 12 has a good section on her work.
Web Sites:
Biography at About.com: http://space.about.com/od/astronomerbiographies/a/marysomerville.htm
Biography at Mac Tutor: http://www-history.mcs.st-andrews.ac.uk/Biographies/Somerville.html
From Biographies of Women Mathematicians:
   http://www.agnesscott.edu/friddle/women/somer.htm
Bruck’s Article (see above) on line:
   http://adsbit.harvard.edu/cgi-bin/nph-iarticle_query?bibcode=1996JBAA..106..201B
Brief Biography at Women in Math:
   http://www.mathnews.uwaterloo.ca/BestOf/WomenInMath7105.html
Brief Biography at Burntisland Site: http://www.burntisland.net/mabon.htm
BBC Radio Program about her, with Allan Chapman (audio):
Interesting essay by Paula Gould from Science, wondering if her life story (and Caroline Herschel’s
has been whitewashed by history:
   http://www.sciencemag.org/cgi/content/full/sci;296/5574/1805
Transcript of a brief broadcast about her on Australian radio:
   http://www.abc.net.au/rn/science/ockham/stories/s306256.htm

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Tinsley, Beatrice (1941-1981)

for teens has a chapter on Tinsley.
Eisberg, Joann “Making a Science of Observational Cosmology: The Cautious Optimism of
cosmology; material on Tinsley is in Chapter 10.
Trimble, Virginia “Beatrice Tinsley” in Visit to a Small Universe. 1992, American Institute of
Physics Press.

Web Sites:
Biography by Virginia Trimble (pdf file): http://www.ias.ac.in/womeninscience/Tinsley.pdf
Biography at New Zealand Edge page: http://www.nzedge.com/heroes/tinsley.html
Biography by Michele Nichols on Carleton College site:
   http://www.carleton.edu/departments/PHAS/astro/pages/michele/tinsley.html
Paper about her life and work by Margaret Turner:
Brief Biography from the ASP’s Women in Astronomy Slide Set:
   http://astro.berkeley.edu/~gmarcy/women/tinsley.html
Eisberg article (see above): http://www.shpltd.co.uk/eisberg-tinsley.pdf
4. Material on Some Specific Living Astronomers who are Women

Bell Burnell, Jocelyn (1943 - )


Web Sites:

Citation and Interview when she was Elected a Fellow of the Royal Society:
http://royalsociety.org/page.asp?tip=1&id=1481

Interview on the BBC Program Belief (both about her religious view and her science):
http://www.bbc.co.uk/religion/programmes.belief/scripts/jocelyn_bell_burnell.html

Her talk on Astronomy and Poetry at the University of Bath:
http://www.podcastdirectory.com/podshows/993144

Royal Institution (Public) Discourse in 1997 (“Tick Tick Tick Pulsating Star”) by Bell Burnell:
http://www.vega.org.uk/video/programme/69 (a video)

Brief biography at the Contributions of Women to Physics Site:
http://cwp.library.ucla.edu/Phase2/Burnell_Jocelyn_Bell@841234567.html

Brief Biography from the ASP’s Women in Astronomy Slide Set:
http://astro.berkeley.edu/~gmarcy/women/burnell.html

Brief Bio at Project NOVA site from California State U. at Pomona:
http://www.csupomona.edu/~nova/scientists/articles/burn.html

1977 After-dinner Speech about her Discovery of Pulsars (text):
http://www.bigear.org/vol1no1/burnell.htm

Encyclopedia of World Biography Entry:
http://www.gale.cengage.com/free_resources/whm/bio/bellburnell_s.htm

Burbidge, Margaret (1919 - )


Reed, J. "A Great Woman Astronomer Leaves England Again" in *Smithsonian*, Jan. 1974, p. 34.


**Web Sites:**
- Bruce Medal Profile: [http://www.phys-astro.sonoma.edu/BruceMedalists/BurbidgeM/](http://www.phys-astro.sonoma.edu/BruceMedalists/BurbidgeM/)
- Interview with David DeVorkin at the Center for the History of Physics from 1978: [http://www.aip.org/history/ohilist/25487.html](http://www.aip.org/history/ohilist/25487.html)
- Short bio at Contributions of Women to Physics site: [http://www.physics.ucla.edu/~cwp/Phase2/Burbidge_E_Margaret@932123456.html](http://www.physics.ucla.edu/~cwp/Phase2/Burbidge_E_Margaret@932123456.html)
- Brief Biography from the ASP’s Women in Astronomy Slide Set: [http://astro.berkeley.edu/~gmarcy/women/burbidge.html](http://astro.berkeley.edu/~gmarcy/women/burbidge.html)

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**Faber, Sandra** (1944 - )

Dressler, Alan *Voyage to the Great Attractor*. 1994, Knopf. Story of how we learned to explore the large-scale structure of the realm of the galaxies, focusing on the astronomers who call themselves the “Seven Samurai” (of which Faber is one).


**Web Sites:**
- Her Web Page at Lick Observatory: [http://www.ucolick.org/~board/faculty/faber.html](http://www.ucolick.org/~board/faculty/faber.html)
- Interview with Patrick McCray for the Center for the History of Physics 2002: [http://www.aip.org/history/ohilist/25489.html](http://www.aip.org/history/ohilist/25489.html)
- Bio Page at the Contribution of Women to Physics Site at UCLA: [http://www.physics.ucla.edu/~cwp/Phase2/Faber_Sandra_Moore@931234567.html](http://www.physics.ucla.edu/~cwp/Phase2/Faber_Sandra_Moore@931234567.html)
- Brief Biography from the ASP’s Women in Astronomy Slide Set: [http://astro.berkeley.edu/~gmarcy/women/faber.html](http://astro.berkeley.edu/~gmarcy/women/faber.html)
**Fischer, Debra** (1953 - )


**Web Sites:**
Her web site at San Francisco State University: [http://www.physics.sfsu.edu/~fischer/](http://www.physics.sfsu.edu/~fischer/)
Interview at the Woman Astronomer site: [http://www.womanastronomer.com/dfischer.htm](http://www.womanastronomer.com/dfischer.htm)
Her talk on Extra-solar Planets in San Francisco May 2008 (video): [http://fora.tv/2008/05/15/The_Search_for_a_World_Like_Our_Own_Imagine_Earth_20](http://fora.tv/2008/05/15/The_Search_for_a_World_Like_Our_Own_Imagine_Earth_20)
Her article about finding planets in *Mercury* magazine: [http://www.astrosoctociety.org/pubs/mercury/0004/fischer.html](http://www.astrosoctociety.org/pubs/mercury/0004/fischer.html)

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**Freedman, Wendy** (1957 - )

Ferguson, Kitty *Measuring the Universe*. 1999, Walker. Chronicle of how distances were found in the universe, with good discussions of contributions by individual astronomers.
Stephens, Sally “Hubble Warrior” in *Astronomy*, March 2000, p. 52. Profile of her work trying to find the Hubble constant and other cosmological parameters.

**Web Sites:**

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**Geller, Margaret** (1947 - )

Chaikin, Andrew “Surveyor of the Universe” in *Air & Space*, Aug./Sept. 1991; vol. 6, p. 84.
Greenstein, George *Portraits of Discovery*. 1998, John Wiley. Chapter 8 of this collection of biographical articles is about Margaret Geller and John Huchra.

Web Sites:
Her web page at Smithsonian: http://cfa-www.harvard.edu/~mjg/
Brief Biography from the ASP’s Women in Astronomy Slide Set:
http://astro.berkeley.edu/~gmarcy/women/geller.html
Her 1995 Phi Beta Kappa Address at Harvard: http://gos.sbc.edu/g/geller.html
Margaret Geller Giving a Talk on “When Galaxies Collide” (2004, video):
http://streamer.perimeterinstitute.ca/Flash/5071fa3c-293a-4256-8003-20cfe88167ad/index.html
Her poignant essay on Science and Society, “Black Ribbon” from Science Magazine (1998):
http://www.scienceonline.org/cgi/content/full/281/5381/1278

Ghez, Andrea (1965 - )


Web Sites:
Her web page at UCLA: http://www.astro.ucla.edu/~ghez/
Her 2003 UCLA Faculty Lecture on “Unveiling the Black Hole at the Center of the Galaxy”:
http://www.webcast.ucla.edu/Webcast/FRL/Ghez/
Brief story about her on “My Hero” web page:
Interview with her for the PBS TV Show NOVA in 2006:
http://www.pbs.org/wgbh/nova/blackhole/explorer.html
Interview for ABC’s “Science Show”:
Brief Biography on the Poster Project Site:
http://www.math.sunysb.edu/posterproject/biographies/ghez.html

Hammel, Heidi (1960 - )


Web Site:
Her web page at the Space Science Institute:
http://www.spacescience.org/about_ssi/staff/hammel.html
Brief answer to what made her become an astronomer and a Field Journal at the NASA Quest Site:
http://quest.arc.nasa.gov/hst/people/hammel.html
Her answers to frequently asked questions at the site for the kids’ book about her:
http://www.fredbortz.com/HammelBio/AstroFAQ.htm
An hour interview of Minnesota Public Radio about the successor telescope to the Hubble and her work:
http://minnesota.publicradio.org/display/web/2008/03/05/midmorning2/
Some reminiscences by her sister: http://everything2.com/index.pl?node_id=1373765
Interview about her involvement in education:
http://ssibroker.colorado.edu/Rolesmatrix/matrix/element27/hammel_profile.pdf
Her two appearances on the Planetary Society radio program:
http://www.planetary.org/radio/archive/guest/173/

Luu, Jane (1963 - )

Davies, John Beyond Pluto: Exploring the Outer Limits of the Solar System. Chapter 4 features Luu’s life and work.

Web Site:
Interview from 2003 (with a lot of biographical information) at Imagiverse Site:
http://www.imagiverse.org/interviews/janeluu/jane_luu_21_03_03.htm

Ride, Sally (1951 - )

The veteran correspondent for The New Yorker chronicles the training and flight of the crew for Shuttle Flight 41G, which includes Sally Ride.
Hopping, Lorraine Sally Ride: Space Pioneer. 2000, McGraw Hill. For middle school and up.

**Web Sites:**
Biography at Sally Ride Science site: [http://www.sallyridescience.com/sallyride/bio](http://www.sallyridescience.com/sallyride/bio)
Biography at Academy of Achievement Site: [http://www.achievement.org/autodoc/page/rid0bio-1](http://www.achievement.org/autodoc/page/rid0bio-1)
   Interview at the same site: [http://www.achievement.org/autodoc/page/rid0int-1](http://www.achievement.org/autodoc/page/rid0int-1)
Brief on-line chat at NASA Quest: [http://quest.arc.nasa.gov/space/frontiers/chat_archives/ride03-23-99.html](http://quest.arc.nasa.gov/space/frontiers/chat_archives/ride03-23-99.html)
Brief biography at LucidCafe site: [http://www.lucidcafe.com/library/96may/ride.html](http://www.lucidcafe.com/library/96may/ride.html)
Brief Biography from the ASP’s Women in Astronomy Slide Set: [http://astro.berkeley.edu/~gmarcy/women/ride.html](http://astro.berkeley.edu/~gmarcy/women/ride.html)
Brief Biography at Aerospace Guide: [http://www.aerospaceguide.net/women_in_space/sally_ride.html](http://www.aerospaceguide.net/women_in_space/sally_ride.html)
5-min Video on Her Concerns about Technical Education: [http://video.google.com/videoplay?docid=1996560773716130827](http://video.google.com/videoplay?docid=1996560773716130827)

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**Roman, Nancy** (1925 - )


**Web Sites:**
Brief Autobiographical Sketches at NASA Quest: [http://quest.arc.nasa.gov/people/bios/women/nr.html](http://quest.arc.nasa.gov/people/bios/women/nr.html)
Her Resume on line: [http://www.mc.cc.md.us/Departments/planet/Nancy/Nancy.htm](http://www.mc.cc.md.us/Departments/planet/Nancy/Nancy.htm)
An excerpt from Armstrong’s book section about her: [http://www.womenastronomers.com/roman.htm](http://www.womenastronomers.com/roman.htm)
Brief Biography from the ASP’s Women in Astronomy Slide Set: [http://astro.berkeley.edu/~gmarcy/women/roman.html](http://astro.berkeley.edu/~gmarcy/women/roman.html)
Interview with David DeVorkin at the Center for the History of Physics from 1980: [http://www.aip.org/history/ohilist/4846.html](http://www.aip.org/history/ohilist/4846.html)

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**Rubin, Vera** (1928 - )
Boslaugh, John Masters of Time: Cosmology at the End of Innocence. 1992, Addison-Wesley.
Chapter 2 features Rubin’s life and work.
Rubin, Vera Bright Galaxies, Dark Matters. 1997, American Institute of Physics Press. A collection of her articles, including several personal reminiscences.
Soter, Steven & Tyson, Neil, eds. Cosmic Horizons. 2001, New Press. See p. 94ff

Web Sites:
Brief Biography at the Carnegie Institution: http://www.dtm.ciw.edu/content/view/122/168/
Joe Tenn’s Bruce Medalist Profile of her: http://www.phys-astro.sonoma.edu/BruceMedalists/Rubin/index.html
Brief Biography at the Lake Afton Observatory Rubin Women in Astronomy Page: http://webs.wichita.edu/lapo/vr.htm
Excerpt from the book Cosmic Horizons, at the American Museum of Natural History site, about her work: http://www.amnh.org/education/resources/rfl/web/essaybooks/cosmic/p_rubin.html
Brief Biography from the ASP’s Women in Astronomy Slide Set: http://astro.berkeley.edu/~gmarcy/women/rubin.html

Shoemaker, Carolyn (1929 - )

Biography of Eugene Shoemaker, but with much information about Carolyn’s work.

**Web Sites:**
Biography at USGS Page: [http://astrogeology.usgs.gov/About/People/CarolynShoemaker/](http://astrogeology.usgs.gov/About/People/CarolynShoemaker/)
Brief Biography at the American Association of Petroleum Geologists Site: [http://www.aapg.org/explorer/2001/05may/denver_c_shoemaker.cfm](http://www.aapg.org/explorer/2001/05may/denver_c_shoemaker.cfm)
Brief Biography from the ASP’s Women in Astronomy Slide Set: [http://astro.berkeley.edu/~gmarcy/women/shoemaker.html](http://astro.berkeley.edu/~gmarcy/women/shoemaker.html)
1994 Article from *New Scientist*, with history and reactions to the discover of Comet Shoemaker-Levy 9: [http://www.bibliotecapleyades.net/esp_shoemaker_a.htm](http://www.bibliotecapleyades.net/esp_shoemaker_a.htm)
Excerpt from the Book “Shoemaker by Levy” (see above) About Discovering Comet Shoemaker-Levy 9: [http://pup.princeton.edu/chapters/s6909.html](http://pup.princeton.edu/chapters/s6909.html)
Her 1998 Essay from *Science* Magazine on Space Exploration (with some thoughts about her own life and work): [http://www.sciencemag.org/cgi/content/full/282/5394/1637](http://www.sciencemag.org/cgi/content/full/282/5394/1637)

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Stofan, Ellen


**Web Sites:**

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Tarter, Jill (1944 - )


Web Sites:
Brief Biography from the ASP’s Women in Astronomy Slide Set: [http://astro.berkeley.edu/~gmarcy/women/tarter.html](http://astro.berkeley.edu/~gmarcy/women/tarter.html)

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Trimble, Virginia

Trimble, Virginia *Visit to a Small Universe*. 1992, American Institute of Physics Press. A collection of her articles, including several that bear on her own life and work.

Web Sites:
Brief profile at the American Institute of Physics: [http://www.aip.org/history/historymatters/trimble.htm](http://www.aip.org/history/historymatters/trimble.htm)
Brief profile at Johns Hopkins: [http://www.jhuapl.edu/techdigest/td2201/trimble.pdf](http://www.jhuapl.edu/techdigest/td2201/trimble.pdf)
Interview on the “Science and Society” podcast: [http://www.scienceandsociety.net/audio/trimble.mp3](http://www.scienceandsociety.net/audio/trimble.mp3)
Wolff, Sidney (1941 - )


Web Sites:
Announcement of her AAS Education Prize: http://www.noao.edu/outreach/press/pr06/pr0605.html
Brief Biography from the ASP’s Women in Astronomy Slide Set:  
http://astro.berkeley.edu/~gmarcy/women/wolff.html
Her speech for the 100th anniversary of the American Astronomical Society (pdf file):  
Brief biography on her textbook page:  
http://www.thomsonlearning.com/cengage/instructor.do?product_isbn=9780495017905&codeid=2BB6&disciplinenumber=19&courseid=AY03&sortby=copy&type=all_radio&codeFlag=true&maintab=About_the_Book&subtab=About_the_Author

5. (A Few) Articles or Books about Other Individual Women Astronomers


Conklin, Nan Dieter Two Paths to Heaven’s Gate. 2006, NRAO Archives, 520 Edgemont Rd., Charlottesville, VA 22903. A memoir by a pioneering radio astronomer.


Sargent, Anneila: see Goldsmith, Donald The Astronomers. 1991, St. Martin’s Press. See Chapter 12 of this book, which focuses on the work of a few astronomers at the frontiers of science.