# Astronomy/Astrophysics

Purpose: To support teaching and research through the doctoral level astronomy.

## General Collection Guidelines:

Languages: English is the primary language of collection.

Chronological Guidelines: Research interest is primarily in the twentieth century. Books dealing with historical, philosophical, and cultural aspects of mathematics are of interest but receive second priority.

Geographical Guidelines: Not applicable

Treatment of the Subject: Lower-division textbooks generally are not purchased. Upper-division textbooks and popular works are acquired selectively. Emphasis is on graduate level texts and research material.

Types of Material: Acquisitions are primarily in the form of monographs and periodicals, but also include atlases, catalogs, charts proceedings/transactions of conferences, dictionaries, encyclopedias, directories, technical reports, microforms, and government documents in any suitable format.

Date of Publication: Emphasis is on the acquisition of current imprints. Retrospective materials may be purchased either in the original, reprint, microform, or electronic version depending on availability and cost.

Other General Considerations: The Palomar Observatory Sky Atlas is a major astronomical resource

## Observations and Qualifications by Subject with Collection Level:

Astronomy

Theoretical Astrophysics: C(2) / B

Includes gravitational instability; neutrino astronomy; x-ray and gamma-ray astronomy; stellar atmospheres, envelopes, structure, evolution, and nucleosynthesis; relativistic astrophysics, etc.

Solar System: C(1) / B

Includes sun (solar photosphere and chromosphere, sunspots, solar wind, radio radiation, solar eclipses, solar rotation, etc.) and the planets, comets, asteroids, meteors and meteorites, interplanetary matter, extrasolar planets, etc.

Stars: C(1) / B

Includes pulsars, stellar parallaxes, magnitudes, colors, temperatures, masses, magnetic fields and rotation; binary and variable stars; novae and supernovae; low-luminosity stars; star formation; etc.

Interstellar Matter: C(1) / B

Includes Super Nova Remnants, Gaseous Nebulae, Planetary Nebulae, Cosmic Rays, etc.

Radio Sources: C(1) / B

Includes wave-length specific X-ray and Gamma-ray Sources; Cosmic Radiation; radio; millimeter, submillimeter; infrared, optical, UV, x-ray; etc.

Stellar Systems: C(1) / B

Includes kinematics, quasars, and dynamics of stellar systems, stellar associations, galactic and globular clusters, galactic magnetic field and radio radiation, single and multiple galaxies, inter- galactic matter, etc.

Astrophysics

Positional Astronomy and Celestial Mechanics: C(1)

Includes astronomical constants, time rotation of the earth, latitude determination, polar motion, geodetic astronomy, navigation, orbits.

Space Research: C(1)

Includes extraterrestrial research, lunar planetary probes, etc.

Cosmology: C(1) / B

Includes theoretical and observational aspects, large scale structure, computational studies.

Gravitation: C(1) / B

Includes theories of gravity, gravitational wave/radiation, numerical relativity, classic and quantum gravity.

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