



Photo by D. R. Long

Graduate Study in Astronomy/Astrophysics

www.physics.utoledo.edu

Degrees offered: M. S., M. S. E., Ph. D. in physics; concentrations in materials science; joint M. S. program with Electrical Engineering and Computer Science; Ph. D. concentration in medical physics offered jointly with Dept. of Radiation Oncology

Faculty: 24 physics and astronomy (8 + an emeritus in astronomy/astrophysics)

Astronomy/astrophysics course offerings: stellar atmospheres, stellar interiors (two-semester sequence offered in alternate years) Galactic astronomy, extragalactic astronomy (two-semester sequence offered in alternate years); stellar spectra; general relativity; cosmology; special topics (one semester each, offered occasionally)

Relevant campus research facilities: 1-meter telescope with two spectrographs and CCD cameras; two Beowulf computer clusters, routine access to Ohio Supercomputer Center, Internet 2

Research areas

Disks and planet formation Radiative transfer models of disks, signatures of giant planet formation (J. Bjorkman); disk evolution in star clusters (Megeath)

Extragalactic astronomy Star clusters and star formation in galaxies (Chandar); dust in galaxies (Smith, winter 2008)

Interstellar gas Molecular cloud chemistry, cosmochemistry, laboratory astrophysics (Federman)

Interstellar dust Galactic and extragalactic; light scattering, photoluminescence (Witt)

Stellar atmosphere theory Stellar winds; circumstellar disks and envelopes (J. Bjorkman)

Stellar spectroscopy and polarimetry Be stars, Herbig Ae/Be stars, circumstellar disks and envelopes (K. Bjorkman); hot star atmospheres and winds, instrumentation (Morrison)

Galactic star formation Infrared surveys of molecular clouds, formation of star clusters; infrared and millimeter observations of protostars (Megeath)

Administrative

For admission: Undergraduate GPA 2.7 or better; competitive. Provide official transcript and 3 letters of recommendation. GRE General and Physics sections encouraged. *Deadline:* Completed applications for fall should be at the Graduate School by 15 January in order to be considered in the first round. *International students:* TOEFL \geq 213, GRE General required.

Assistantships: Stipend is competitive. Tuition is waived.

For more information and to apply: www.physics.utoledo.edu

Inquiries: email Prof. Nancy Morrison (graduate committee chair) at NMorris@UTNet.UToledo.Edu