General University Information
President: Michael A. McRobbie
Dean of Graduate School: James Wimbush
University website: http://www.indiana.edu/~grdschl/index.php
Control: Public
Setting: Suburban
Total Faculty: 2,804
Total Graduate Faculty: 1,373
Total number of Students: 46,416
Total number of Graduate Students: 9,997

Department Information
Department Chairman: Prof. Eileen Friel, Chair
Department Contact: Tiffany Freeman, Senior Office Assistant
Total full-time faculty: 10
Total number of full-time equivalent positions: 12
First-Year Graduate Students: 16
Female First-Year Students: 2
Total Post Doctorates: 2

Department Address
727 East 3rd Street
Swain West 318
Bloomington, IN 47405-7105
Phone: (812) 855-6911
E-mail: astdept@indiana.edu
Website: http://www.astro.indiana.edu/

ADMISSIONS
Admission Contact Information
Address admission inquiries to: Dr. Katherine Rhode, Graduate Advisor, Astronomy Department, Swain Hall West 318, 727 East Third Street, Bloomington, IN 47405-7105.
Phone: (812) 855-6911
E-mail: astdept@indiana.edu
Admissions website: http://www.astro.indiana.edu/admissions.shtml

Application deadlines
Fall admission:
U.S. students: January 15
Int'l. students: December 1

Application fee
U.S. students: $55
Int'l. students: $65

Admissions information
For Fall of 2016:
Number of applicants: 38
Number admitted: 10
Number enrolled: 4

Admission requirements
Bachelor’s degree requirements: A Bachelor’s degree in Physics, Astronomy, Astrophysics, or a related discipline is required.
Minimum undergraduate GPA: 3.0

GRE requirements
The GRE is required.
Mean GRE score range (25th–75th percentile): V: 480-640, Q: 740-800, A: 3.5-4.5

Advanced GRE requirements
The Advanced GRE is required.
Mean Advanced GRE score range (25th–75th percentile): 540-730
There is no minimum GRE requirement.

TOEFL requirements
The TOEFL exam is required for students from non-English-speaking countries.
PBT score: 550
iBT score: 79

Other admissions information
Undergraduate preparation assumed: Physics and math background sufficient to handle the astronomy in the following text is assumed: Introduction to Modern Stellar Astrophysics by Carroll and Ostlie.

TUITION
Tuition year 2016–17:
Tuition for in-state residents
Full-time students: $362.30 per credit
Tuition for out-of-state residents
Full-time students: $1,184.15 per credit
Bloomington campus.
Credit hours per semester to be considered full-time: 8
Deferred tuition plan: No
Health insurance: Available
Other academic fees: Approximately $1000 per semester for a full-time student.
Academic term: Semester
Number of first-year students who received full tuition waivers: 4

Teaching Assistants, Research Assistants, and Fellowships
Number of first-year Teaching Assistants: 4
Average stipend per academic year
Teaching Assistant: $18,333
Research Assistant: $25,000
Fellowship student: $30,000

FINANCIAL AID
Application deadlines
Fall admission:
U.S. students: March 10
Int'l. students: December 1

Loans
Loans are available for U.S. students.
Loans are not available for international students.
GAPSFAS application required: No
FAFSA application required: Yes

For further information
Address financial aid inquiries to: Office of Scholarships and Financial Aid.
Phone: (812) 855-6500
Financial aid website: http://admit.indiana.edu/cost/index.shtml
Housing

Availability of on-campus housing

Single students: Yes
Married students: Yes

For further information
Address housing inquiries to: Halls of Residence, 801 N. Jordan, Bloomington, IN 47405.
Phone: (800) 817-6371
E-mail: housing@indiana.edu
Housing aid website: http://www.rps.indiana.edu/index.cfm

Table A—Faculty, Enrollments, and Degrees Granted

<table>
<thead>
<tr>
<th>Research Specialty</th>
<th>2015–16 Faculty</th>
<th>Number of Degrees Granted 2015–16 (2011–16)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Masters’</td>
<td>Doctorate</td>
</tr>
<tr>
<td>Astronomy</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Astrophysics</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Full-time Grad. Stud.</td>
<td>-</td>
<td>17</td>
</tr>
<tr>
<td>First-year Grad. Stud.</td>
<td>-</td>
<td>4</td>
</tr>
</tbody>
</table>

Graduate Degree Requirements

Master’s: The MA degree requires 30 hours with a minimum GPA of 3.0. There is no specific residency requirement. A thesis may be required at the discretion of the faculty. A final oral examination covering work for the degree is also required.

Doctorate: The PhD in Astronomy requires 90 hours with a minimum GPA of 3.0. There is no specific residency requirement, but the student must be continuously enrolled after admission to candidacy. The qualifying examination consists of a written examination (normally after the fourth semester). The requirements for the PhD in Astrophysics include at least four physics courses not required by the PhD in Astronomy. Candidacy is attained by passage of a combination of tests administered by the Physics Department and the Astronomy Department.

Thesis: Thesis may be written in absentia.

Special Equipment, Facilities, Or Programs

The Department is a partner in the 3.5-m and the 0.9-m WIYN telescopes at Kitt Peak National Observatory near Tucson, Arizona. Most data for thesis research are obtained at WIYN or with national facilities that provide telescope access for X-ray, UV, optical, infrared, radio, and space applications. Indiana University has superb centralized supercomputing facilities available for student and faculty research, and the department has its own computational systems for data processing and scientific computing. Small local telescopes are available for student training.

Table B—Separately Budgeted Research Expenditures by Source of Support

<table>
<thead>
<tr>
<th>Source of Support</th>
<th>Departmental Research</th>
<th>Physics-related Research Outside Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal government</td>
<td>$1,500,000</td>
<td>$400,000</td>
</tr>
<tr>
<td>State/local government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-profit organizations Business and industry Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1,500,000</td>
<td>$400,000</td>
</tr>
</tbody>
</table>

Table C—Separately Budgeted Research Expenditures by Research Specialty

<table>
<thead>
<tr>
<th>Research Specialty</th>
<th>No. of Grants</th>
<th>Expenditures ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy</td>
<td>10</td>
<td>$1,500,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
<td>$1,500,000</td>
</tr>
</tbody>
</table>

Faculty

Professor

Cohn, Haldan N., Ph.D., Princeton University, 1979. Astronomy, Astrophysics. Dynamical evolution of dense stellar systems; high-performance N-body simulations; globular clusters structure and stellar content; X-ray binaries.

Friel, Eileen D., Ph.D., University of California, Santa Cruz, 1986. Astronomy, Astrophysics. Formation and evolution of the Milky Way; galactic chemical evolution; star clusters; stellar evolution and nucleosynthesis; stellar populations.


Pilachowski, Catherine A., Ph.D., University of Hawaii, 1975. Astronomy, Astrophysics. Origin of the elements in the Milky Way; star clusters; stellar evolution; the compositions of stars; stellar populations; stellar seismology.

Salzer, John J., Ph.D., University of Michigan, 1987. Astronomy, Astrophysics. Galaxy evolution; active galactic nuclei; starburst galaxies; chemical evolution in galaxies multi-wavelength studies of dwarf galaxies; emission-line surveys.

van Zee, Liese, Ph.D., Cornell University, 1996. Astronomy, Astrophysics. Galaxy evolution; element enrichment; star formation; extragalactic neutral hydrogen.

Associate Professor

Deliyannis, Constantine P., Ph.D., Yale University, 1990. Astronomy, Astrophysics. Stellar evolution; galactic evolution; primordial lithium; Big Bang nucleosynthesis.

Rhode, Katherine, Ph.D., Yale University, 2003. Astronomy, Astrophysics. Extragalactic globular cluster systems; galaxy formation; rotation and evolution of solar-type pre-main-sequence stars.

Assistant Professor


Emeritus


Durisen, Richard H., Ph.D., Princeton University, 1972. Astronomy, Astrophysics. Star formation; astrophysical fluid dynamics; stellar rotation; planetary rings; complex plasmas.

Honeycutt, R. Kent, Ph.D., Case Western Reserve University, 1968. Astronomy, Astrophysics. Stellar astronomy; instrumentation; accretion disks in cataclysmic variables and in other interacting binary stars.

**Research Professor**

Salim, Samir, Ph.D., Ohio State University, 2002. Astronomy, Astrophysics. Galaxy evolution; star formation indicators; galaxy bimodality; SED fitting; galaxy surveys; data mining; UV astronomy.

Steiman-Cameron, Thomas Y., Ph.D., Indiana University, 1984. Astronomy, Astrophysics. Dynamics of non-planar astrophysics disks; galaxy formation and evolution; structure of galactic halos; spiral structure of the Milky Way; accretion-driven compact X-ray binary stars.

Thornburg, Jonathan, Ph.D., University of British Columbia, 1993. Astronomy, Astrophysics. Numerical simulations of gravitational radiation from extreme-mass-ratio binary black hole inspirals/mergers; numerical simulations of binary black hole mergers; gravitational-wave astrophysics.

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**DEPARTMENTAL RESEARCH SPECIALTIES AND STAFF**

**Theoretical**

Theoretical Astrophysics. Dynamical evolution of dense stellar systems; globular clusters; stellar rotation; planetary rings; complex plasma; X-ray studies; high-performance N-body simulations. Cohn, Durisen, Lugger, Steiman-Cameron, Vesperini.

**Experimental**

Observational Astrophysics. Ground-based and space-based multi-wavelength astronomy; imaging and spectroscopy of stars, star clusters, and external galaxies; studies of stellar abundances and evolution, galaxy evolution, and chemical evolution; accretion disks interacting binaries; X-ray binaries; dark energy. Cohn, Deliyannis, Friel, Honeycutt, Lugger, Mufson, Pilachowski, Rhode, Salzer, van Zee.

Observational Astrophysics. Instrumentation; CCD systems; spectrography design; telescope automation. Honeycutt, Pilachowski.

Observational Astrophysics. High-energy particle astrophysics; neutrino and muon astronomy. Mufson.

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View additional information about this department at [www.gradschoolshopper.com](http://www.gradschoolshopper.com)