General University Information
President: Stuart Bell
Dean of Graduate School: Susan Carvalho
University website: http://www.ua.edu
School Type: Public
Setting: Suburban
Total Faculty: 1,484
Total Graduate Faculty: 1,005
Total number of Students: 38,392
Total number of Graduate Students: 4,916

Department Information
Department Chair: Prof. Patrick R. LeClair, Chair
Department Contact: Nancy Pekera, Administrative Secretary
Total full-time faculty: 31
Total number of full-time equivalent positions: 31
Full-Time Graduate Students: 59
Female Full-Time Graduate Students: 14
First-Year Graduate Students: 6
Female First-Year Students: 1
Total Post Doctorates: 12

Department Address
514 University Boulevard
Tuscaloosa, AL 35487-0324
Phone: (205) 348-5050
Fax: (205) 348-5051
E-mail: npekera@ua.edu
Website: http://physics.ua.edu

ADMISSIONS
Admission Contact Information
Address admission inquiries to: Graduate School Office, Box 870118, Tuscaloosa, AL 35487-0118
Phone: (877) 824-7237
E-mail: graduate.school@ua.edu
Admissions website: http://graduate.ua.edu/prospects/application/

Application deadlines
Fall admission:
U.S. students: January 15
Int’l. students: January 15
Spring admission:
U.S. students: November 1
Int’l. students: June 1

Application fee
U.S. students: $65
Int’l. students: $80
Admissions are considered after the deadlines if positions are available. Full consideration is only guaranteed if the deadlines are met.

Admissions information
For Fall of 2019:
Number of applicants: 88
Number admitted: 9
Number enrolled: 6

Admission requirements
Bachelor’s degree requirements: Bachelor’s degree in Physics is required.
Minimum undergraduate GPA: 3.0

GRE requirements
The GRE is required.
The applicant must have a minimum of 300 on the GRE.

GRE Physics requirements
The GRE Physics is not required.

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

Other admissions information
Undergraduate preparation assumed: Halliday and Resnick, Fundamentals of Physics; Serway, Moses, and Moyer, Modern Physics; Symon, Mechanics; Reitz, Milford, Foundation of Electromagnetic Theory; Eisberg, Resnick, Quantum Physics of Atoms; etc.

TUITION AND ASSISTANTSHIPS
Teaching Assistants, Research Assistants, and Fellowships
Number of first-year Teaching Assistants: 4
Fellowship students: 2
Average stipend per academic year
Teaching Assistant: $18,747
Research Assistant: $18,747
Fellowship student: $18,747
All first year students have guaranteed support for their first two semesters and their first summer. Including summer support, the annual stipend is $24,996.

Tuition year 2019–20:
Tuition for in-state residents
Full-time students: $5,390 per semester
Tuition for out-of-state residents
Full-time students: $15,125 per semester
Credit hours per semester to be considered full-time: 9
Deferred tuition plan: Yes
Health insurance: Available at the cost of 1747 per year.
Academic term: Semester
Number of first-year students who received full tuition waivers: 6

FINANCIAL AID
Application deadlines
Fall admission:
U.S. students: February 15
Int’l. students: February 15
Spring admission:
U.S. students: November 1
Int’l. students: June 1

Loans
Loans are available for U.S. students.
Loans are available for international students.
GAPSFAS application required: No
FAFSA application required: No

For further information
Address financial aid inquiries to: Office of Student Financial Aid, Box 870162, 106 Student Services Center, The University of Alabama, Tuscaloosa, AL 35487.
The U. of Alabama, Phys. & Astr.

Alabama

Phone: (855) 469-2262
E-mail: financialaid@ua.edu
Financial aid website: http://financialaid.ua.edu

HOUSING

Availability of on-campus housing
Single students: No
Married students: No
Childcare Assistance: No

For further information
Address housing inquiries to: Julie Elmore, Assistant Director
For Off-Campus Housing, 133 Parham East, Box 870399.
Phone: 205-348-0200
E-mail: offcampushousing@sa.ua.edu
Housing aid website: https://offcampushousing.sa.ua.edu

Table A—Faculty, Enrollments, and Degrees Granted

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Masters’</td>
<td>Doctorate</td>
<td>Masters’</td>
</tr>
<tr>
<td>Astronomy</td>
<td>5</td>
<td>10</td>
<td>(8)</td>
</tr>
<tr>
<td>Astrophysics</td>
<td>2</td>
<td>4</td>
<td>(4)</td>
</tr>
<tr>
<td>Condensed Matter</td>
<td>10</td>
<td>25</td>
<td>(13)</td>
</tr>
<tr>
<td>Engineering</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Physics/Science</td>
<td>–</td>
<td>–</td>
<td>4</td>
</tr>
<tr>
<td>Experimental particle</td>
<td>2</td>
<td>6</td>
<td>(4)</td>
</tr>
<tr>
<td>Experimental particle</td>
<td>10</td>
<td>8</td>
<td>(8)</td>
</tr>
<tr>
<td>Other</td>
<td>–</td>
<td>–</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>2</td>
<td>59</td>
</tr>
<tr>
<td>Full-time Grad. Stud.</td>
<td>–</td>
<td>–</td>
<td>59</td>
</tr>
<tr>
<td>First-year Grad. Stud.</td>
<td>–</td>
<td>–</td>
<td>15</td>
</tr>
</tbody>
</table>

GRADUATE DEGREE REQUIREMENTS

Master’s: Plan I: 24 graduate semester hours in an approved program with satisfactory performance required; “B” average; one semester in residence; master’s examination required; thesis required; no language requirement. Plan II: 30 graduate semester hours in an approved program with satisfactory performance; master’s examination required; thesis not required; no language requirement.

Doctorate: A minimum of 48 graduate semester hours required in an approved program with satisfactory performance; one academic year in residence required; oral preliminary examination required; dissertation and dissertation examination required.

Thesis: Thesis may be written in absentia.

SPECIAL EQUIPMENT, FACILITIES, OR PROGRAMS

The Dept. of Physics and Astronomy at the University of Alabama are members of the SARA Telescope consortium, which operates a 0.9 meter telescope at Kitt Peak in Arizona, a 0.6 meter telescope at Cerro Tololo in Chile and a 1.0 meter telescope in La Palma, Canary Islands, Spain. The astronomy group at UA is a member of Galaxy Zoo, the Sloan Digital Sky Survey (SDSS) IV, the VERITAS and CTA gamma ray observatories, and the IceCube Neutrino Observatory at the South Pole. The experimental particle physics group at UA is a member of CMS experiment at CERN’s Large Hadron Collider, the LZ direct Dark Matter detection experiment, the MoEDAL experiment at CERN, and the EXO-200 and nEXO neutrino experiments.

Condensed matter work is facilitated by two clean rooms. Several sputtering systems are available for sample synthesis. Characterization equipment includes alternating-gradient and superconducting vibrating-sample magnetometers, as well as scanning and transmission electron microscopes, scanning atomic force and tunneling microscopes, and Auger and x-ray photoelectron spectroscopy.

On site facilities further include well-equipped laboratories for research in condensed-matter physics, high-energy physics, and image processing.

Supporting facilities include a machine shop, electronics shop, computer workstations, and direct access to the campus mainframe computer and the Alabama supercomputer. Faculty and students participate in the Center for Materials for Information Technology and the Tri-Campus Material Science Ph.D. Program.

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>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal government</td>
<td>$10,468,356</td>
<td></td>
<td>$10,558,356</td>
</tr>
<tr>
<td>State/local government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-profit organizations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business and industry</td>
<td>$90,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$10,558,356</strong></td>
<td></td>
<td></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>25</td>
<td>$1,447,836</td>
</tr>
<tr>
<td>Astroparticle physics</td>
<td>5</td>
<td>$710,016</td>
</tr>
<tr>
<td>Experimental</td>
<td>15</td>
<td>$3,450,237</td>
</tr>
<tr>
<td>Theoretical</td>
<td>11</td>
<td>$2,199,587</td>
</tr>
<tr>
<td>Experimental particle physics</td>
<td>23</td>
<td>$2,432,680</td>
</tr>
<tr>
<td>Theoretical particle physics</td>
<td>16</td>
<td>$3,450,237</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>95</strong></td>
<td><strong>$10,558,356</strong></td>
</tr>
</tbody>
</table>

FACULTY

Professor


Keel, William C., Ph.D., University of California, Santa Cruz, 1982. Astronomy. Galactic nuclei, jets, and galaxy interactions.


United States: Geographic Listing of Graduate Programs

**High Energy Physics, Particles and Fields**

- **Associate Professor**

- **Assistant Professor**

- **Professor Emeritus**

**Teaching Assistant Professor**


**Adjunct Professor**

- **Biermann**, Peter L., Ph.D., University of Gottingen, 1971, *Theoretical astrophysics*.


**Practitioner in Residence**


**DEPARTMENTAL RESEARCH SPECIALTIES AND STAFF**

**Theoretical**


Experimental
Astronomy. Black holes; galaxy evolution; galaxy morphology; spectroscopy of AGN; galaxy clusters; globular clusters; X-ray astronomy; X-ray binaries. Buta, Irwin, Keel, Nair, White.

Precision Timing. precision timing, next-generation atomic clocks, navigation systems. Hauser, LeClair.

View additional information about this department at www.gradschoolshopper.com. Check out the “Why Choose Us?” section, find out more about the department’s culture and get links to social media networks.