General University Information
President: Dr. John Kelly
Dean of Graduate School: Deborah Floyd, Ph.D.
University website: http://www.fau.edu
Control: Public
Setting: Suburban
Total Faculty: 1,571
Total Graduate Faculty: N/A
Total number of Students: 26,245
Total number of Graduate Students: 3,674

Department Information
Department Chairman: Dr. Luc T. Wille, Chair
Department Contact: Zia Smith, Secretary
Total full-time faculty: 15
Full-Time Graduate Students: 33
First-Year Graduate Students: 2
Female First-Year Students: 1
Total Post Doctorates: 2

Department Address
777 Glades Road
Boca Raton, FL 33431
Phone: (561) 297-3380
Fax: (561) 297-2662
E-mail: zasmith@fau.edu
Website: http://www.physics.fau.edu/

ADMISSIONS

Admission Contact Information
Address admission inquiries to: Jonathan Engle, Admissions Chair, Science Bldg (SE-43), Rm. 430.
Phone: (561) 297-3380
E-mail: engle@sci.fau.edu
Admissions website: http://www.physics.fau.edu/

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

Application fee
U.S. students: $30
Int’l. students: $30

Admissions information
For Fall of 2016:
Number of applicants: 54
Number admitted: 7

Admission requirements
Bachelor’s degree requirements: Bachelor’s degree in physics is required. PSMP Admissions Requirements: A BS or BA in Physics. Candidates with a BS in Biology, Chemistry, Computer Science, or Engineering with a minor in Physics are considered. At least a 3.0 (of a 4.0 maximum) grade point average (GPA) in Science and Mathematics, courses. Have taken the general portion of the GRE.
Minimum undergraduate GPA: 3.0

GRE requirements
The GRE is required.
There is no minimum GRE score required.

Advanced GRE requirements
The Advanced GRE is recommended.
There is no minimum GRE score required.

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: Reitz and Milford, Foundations of Electromagnetic Theory; Symon, Mechanics; Saxon, Quantum Mechanics;* Boyce and Deprima, Elementary Differential Equations and Boundary Value Problems; Reif, Statistical and Thermal Physics;* Boas, Mathematical Methods in the Physical Sciences.*; *May be taken during first year of graduate study.

TUITION

Tuition year 2015–16:
Tuition for in-state residents
Full-time students: $369.82 per credit
Part-time students: $369.82 per credit
Tuition for out-of-state residents
Full-time students: $1,024.81 per credit
Part-time students: $1,024.81 per credit
Credit hours per semester to be considered full-time: 9
Deferred tuition plan: No
Health insurance: Available at the cost of $1,350 per year.
Academic term: Semester

Teaching Assistants, Research Assistants, and Fellowships
Number of first-year Fellowship students: 2
Average stipend per academic year Teaching Assistant: $20,050
All first-year Ph.D. students are offered a TA stipend per academic year.

FINANCIAL AID

Application deadlines
Fall admission:
U.S. students: March 1
Spring admission:
U.S. students: March 1

Loans
Loans are not 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 Student Financial Aid, Bldg. SU-80, Rm. 233.
Phone: (561) 297-3530
Florida

**HOUSING**

**Availability of on-campus housing**

*Single students: Yes*

*Married students: No*

**For further information**

*Address housing inquiries to: Director of Student Housing, Bldg SH-46, RM 215.*

*Phone: (561) 297-2880*

*E-mail: housing@fau.edu*

*Housing aid website: [http://www.fau.edu/housing/index.php](http://www.fau.edu/housing/index.php)*

Table A—Faculty, Enrollments, and Degrees Granted

<table>
<thead>
<tr>
<th>Research Specialty</th>
<th>2015–2016 Faculty</th>
<th>Enrollment Fall 2015</th>
<th>Number of Degrees Granted 2015–2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mas-ter’s</td>
<td>Doc-torate</td>
<td>Mas-ter’s</td>
</tr>
<tr>
<td>Biophysics</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Condensed Matter Physics</td>
<td>5</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Medical, Health Physics</td>
<td>4</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Relativity &amp; Gravitation</td>
<td>4</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td><strong>Full-time Grad. Stud.</strong></td>
<td>18</td>
<td>31</td>
<td>4</td>
</tr>
<tr>
<td><strong>First-year Grad. Stud.</strong></td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GRADUATE DEGREE REQUIREMENTS**

**Master’s:** Thirty credits in approved program with a 3.0 sustained GPA, including 7 credits of thesis research. Students must be in residence for two semesters. Final thesis.

**Doctorate:** Fifty credits in approved program with a 3.0 sustained GPA beyond the M.S., including 30 credits of dissertation research; comprehensive written examination covering mechanics, electromagnetism, quantum mechanics, and statistical mechanics. Dissertation and oral examination required.

**Other Degrees:** The MST in physics requires 50 credits with a 3.0 GPA, which may include 6 thesis credits. In addition, a 6-credit internship requirement must be satisfied for students without teaching experience. The Ed.D. degree in Curriculum and Instruction is offered for junior college teachers with physics as a first or second teaching field. Professional Science Master in Medical Physics: 41 credits and Thesis in PSMMP program. PSMMP is one of the 35 CAMPEP-accredited programs in the USA. PSMMP provides professional training in partnership with area hospitals, and focuses on Radiation Therapy.

**Thesis:** Thesis may be written in absentia.

**SPECIAL EQUIPMENT, FACILITIES, OR PROGRAMS**

The Department is rapidly growing and is poised to meet the new challenges for the field of physics in today’s environment at a research university. Our research focus is in three main areas: (1) classical and quantum gravity, (2) the behavior of complex systems, particularly as it relates to neuroscience, and (3) medical and materials physics. While we have well-established M.S. and Ph.D. programs in physics, we also offer a CAMPEP accredited professional M.S. in Medical Physics. All are centered around our core research thrusts.

We host one of the largest general relativity groups which focuses on loop quantum gravity, numerical relativity, and discrete geometry (Regge calculus). The FAU spacetime (FAUST) physics group provides numerical and mathematical support for gravitational wave physics and general relativistic astrophysics. We have a large and growing quantum gravity effort, as well as a new thrust in quantum computing and quantum cryptography.

We have a close relationship and share faculty with the Center for Complex Systems and Brain Science. We are in the process of building a core biophysics effort to integrate with this center as well as FAU’s broader neuroscience thrust. In addition, we are augmenting and integrating our core expertise in condensed matter physics with the growing fields of the Physics of Living Systems and Medical Physics.

Our research includes collaborations with National Labs and partnerships with hospitals under the Center of Biomedical and Materials Physics (CBAMP). Our growing efforts in all fields are tightly integrated with that of the other departments within the Charles E. Schmidt College of Science, as well as the strategic plan of the university at large.

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>$927,000</td>
<td></td>
</tr>
<tr>
<td>State/local government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-profit organizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business and industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>$71,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>$998,000</td>
</tr>
</tbody>
</table>

**FACULTY**

**Professor**


Miller, Warner A., Ph.D., University of Texas, Austin. Classical and quantum gravity; general relativistic astrophysics, numerical relativity, foundations of quantum mechanics.

Qiu, Shen-Li, Ph.D., City University of New York. Experimental condensed matter; photoemission; electronic structure and magnetic behavior of metals and alloys.

Tichy, Wolfgang, Ph.D., Cornell University. Numerical relativity; binary black hole systems; gravitational wave physics.

Wille, Luc T., Ph.D., Ghent University. Theoretical condensed matter; alloys, high-Tc superconductivity.

**Associate Professor**

Beetle, Christopher, Ph.D., Pennsylvania State University, University Park. Classical and quantum gravity; numerical relativity.

Fuchs, Armin, Ph.D., University of Stuttgart. Nonlinear dynamical systems; complex systems and brain sciences.

Lau, Andy W. C., Ph.D., University of California, Santa Barbara. Theoretical soft condensed matter physics; biophysics and statistical mechanics.

**Assistant Professor**

Engle, Jonathan, Ph.D., Pennsylvania State University. Loop quantum gravity.

Han, Muxin, Ph.D., Humboldt-Universität zu Berlin. *Relativity & Gravitation, Other*. Loop Quantum Gravity, Non-perturbative Gauge Theory, String Theory.
Kalantzis, Georgios, Ph.D., University of Texas-MD Anderson. Accelerator, Biophysics, Computational Physics, Medical, Health Physics, Neuroscience/Neuro Physics, Nonlinear Dynamics and Complex Systems, Other. Parallelization Methods in Medical Physics, Radiation Therapy, Treatment Planning.

Emeritus
Bruenn, Stephen W., Ph.D., Columbia University. Theoretical astrophysics; supernovae models; radiation transport.
Dean, Nathan W., Ph.D., University of Cambridge. Theoretical elementary particle physics; mathematical finance.
Faulkner, John S., Ph.D., Ohio State University. Theoretical physics; theory of alloys.
Jordan, Robin G., Ph.D., University of Sheffield. Experimental condensed matter; UV photoemission; alloys.
McGuire, James B., Ph.D., University of California, Los Angeles. Mathematical physics; three-body problem; statistical physics; quantum field theory.
Medina, Fernando D., Ph.D., Princeton University. Experimental condensed matter physics; spectroscopic studies of solids.

Instructor
Chen, De Huai, Ph.D., City University of New York.
Gross, Robert, Ph.D., Florida Atlantic University.

Associate Scientist
Sorge, Korey D., Ph.D., University of Tennessee, Knoxville. Condensed matter physics.

Associate Scholar / Scientist
Kreymerman, Grigoriy, Ph.D., Academy of Sciences, Soviet Union. Optics. Optics.

DEPARTMENTAL RESEARCH SPECIALTIES AND STAFF

Theoretical

Experimental
Biophysics. Biomaterials Physics; X-ray and Neutron Powder Diffraction; Magnetic Nanomaterials; Medical Physics.

View additional information about this department at www.gradschoolshopper.com