

# Physics Department

- Welcome new and returning students, faculty, and staff
- General announcements
- Physics colloquium series -- PHY 301/601
- Careers in physics program; SPS & T-shirt design contest
- Undergraduate honors and award programs
- Lab teaching assistant, tutoring, and grading opportunities
- Research opportunities
- Presentations by undergraduate research students

# Physics Department

- Welcome **new and returning students**, faculty, and staff –

## **Undergraduate Physics Majors:**

**Natalia Azarova, Thomas Cahyuti, P Wilson Cauley,  
Nick Courtney, Erik Forseth, Matthew Howell,  
Nicholas Lepley, David Rosile, Sanjay Talluri,  
Matthew Walb**

**Margaret Baldwin, Rick Chainani, Alyssa Chang,  
William Cox, Ashley Dannahower, Alford Dyer,  
Bradley Goetz, Matt Gottbrecht, Adam Kuhn,  
Benjamin Mills, Laura Patton, Patrick Nelli, Eric Roll,  
Alex Taylor, Pamela Wang**

# Physics Department

•Welcome **new and returning students**, faculty, and staff –

## Physics Graduate Students:

Ivan Azarov, **Stephen Baker**, Jason Bates, Landon Bellavia, Ryan Best, Christine Carlisle, Leo Ding, Samrat Dutta, Todd Fallesen, **Sarah Fisher**, Jason Grigsby, **Joel Grim**, **Cory Hewitt**, **Jeremy Hohertz**, Jerrold Kielbasa, Brian Kolb, **Yuan Li**, **Graham Lopez**, Baxter McGuirt, **Wanyi Nie**, Eric Peterson, **Justin Sigley**, Xiao Xu, **Da Yao**, Ye Yuan, **Maxim Zalutskiy**

## Graduated during the past year:

**Douglas Bonessi (Ph. D. with Keith Bonin)**

**Faith Coldren (Ph. D. with David Carroll)**

**Kevin Conley(Ph. D. with Natalie Holzwarth)**

**William Hodge (Ph. D. with W. C. Kerr)**

# Physics Department

## Physics Department VIP Staff:

**Judy Swicegood** – Administrative Coordinator

**Gale Burns** – Staff Assistant

**Chin-Wan Yip** – Instructional Technology Analyst

**Eric Chapman** – Physics Laboratory Manager & Webmaster

**Bob Morris** – Machine Shop Instructor

**Burak Uçer** – Laser specialist

**Tim Miller** – Computer cluster administrator

**Hazel Daniels** – Custodian

## Research Faculty:

**Swati Basu, George Holzwarth, William C. Kerr, Burak Uçer,**

**Jeongyong Kim (visiting)**

## Research Associates and Staff:

**Yaojun Du, Natalie Gassman, Stacy Knutson, Jason Gagliano,**

**Andreas Perlegas, Tennille Pressley, Yuri Shtridelman**

# Physics Department

## Physics Department Faculty:

**Paul Anderson – Olin 308**

**Keith Bonin (Chair) – Olin 310**

**Bob Brehme (emeritus)**

**Eric Carlson – Olin 306**

**David Carroll – Olin 214**

**Forrest Charnock – Olin 303B**

**Greg Cook (Adv. & Honors) – Olin 304**

**Jacquelyn Fetrow (on leave) – Olin 301B**

**Martin Guthold (Grad Director)– Olin 302**

**William Hodge – Olin 217**

**George Holzwarth (Research) – Olin 300**

**Natalie Holzwarth – Olin 300**

**William Kerr (Research) – Olin 216**

**Dany Kim-Shapiro – Olin 208**

**Jed Macosko – Olin 215**

**Rick Matthews (Assoc. Provost for IS)**

**Fred Salsbury (Adv. & SPS) – Olin 301A**

**Howard Shields (emeritus) – Olin 216**

**Timo Thonhauser – Olin 303A**

**Jack Williams (emeritus)**

**Richard Williams – Olin 212**

# Physics Department

- Important announcements:

## **Announcements from Keith Bonin, Dept. Chair**

**Please check the physics web page, Bulletin Boards as well as your mailboxes in the Physics Dept. Office (Olin 100 or 108) for important announcements**

- All declared physics majors have mailboxes in Rm. 108 and graduate students have mailboxes in Rm. 100.
- Judy needs information forms by Sept. 2<sup>nd</sup> from all undergraduate graders and teaching assistants. She also needs mail and email addresses for all graduate students.
- To obtain keys to rooms in Olin Physical Lab, please see Eric Chapman in Olin 110.

**Please see Eric Chapman in Olin 110 to prepare your photo for our display case**

# Physics Department

<http://www.wfu.edu/physics>



WAKE FOREST  
UNIVERSITY

Department of Physics

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*Wake Forest Physics...  
Nationally recognized for  
teaching excellence;  
internationally respected  
for research advances;  
a focused emphasis on  
interdisciplinary study and  
close student-faculty  
collaboration.*

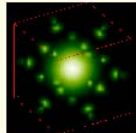
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## News



New Faculty Position in Condensed  
Matter Physics



Congratulations to Dr. Douglas K.  
Bonessi, Ph.D. Recipient



Congratulations to Dr. William B.  
Hodge, Ph.D. Recipient



Welcome to Dr. Timo Thonhauser,  
new Assistant Professor



Christine Carlisle wins prestigious  
American Heart Association  
Pre-doctoral Fellowship

Looking for older stories?  
Visit the [News Archive](#)

## Events

**08-25-2008**  
**Physics Open House:**  
New Perspective Physics  
Students  
**1:00 - 3:00 PM in Olin 101**

**08-25-2008**  
**Physics Colloquium:**  
Ph.D. Thesis Presentation  
Faith Coldren, WFU  
**3:30 PM in Olin 101**

**08-28-2008**  
**Physics Colloquium:**  
Welcoming "Tea" and student  
presentations  
**3:45 PM in Olin 101**  
**Refreshments at 3:15 PM in  
Olin Lobby**

**11-20-2008**  
**Biophysics Symposium**  
"Biophysics Across Length  
and Time Scales"  
A two-day symposium,  
co-organized and  
co-sponsored by Wake Forest  
University to be held at The  
Friday Center For Continuing  
Education, Chapel Hill, NC

## Profiles in Physics



Eric Sparks is a former  
undergraduate student who  
studied the mechanical properties

# WFU Physics Colloquium Schedule

## -- Fall 2008

[Previous and future colloquia](#)

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All seminars will be held at 4 PM in Room 101 of Olin Physical Laboratory (unless noted otherwise); there will be refreshments at 3:30 PM in the lobby prior to each seminar.

**Mon. Aug. 25, 2008** Faith Coldren, WFU -- Ph. D. defense (Colloquium will begin at 3:30 PM and is open to the public.) [Theoretical and Experimental Atomic Force Microscopy Studies of \*Staphylococcus aureus\*](#)

**Thurs. Aug. 28, 2008** [Welcoming "Tea" and student presentations \(Starting at 3:45 with refreshments at 3:15 PM.\)](#)

**Thurs. Sept. 4, 2008** [Physics Research Opportunities I](#)

**Thurs. Sept. 11, 2008** Physics Research Opportunities II

**Thurs. Sept. 18, 2008** (WFU Opening Convocation)

**Thurs. Sept. 25, 2008**

**Thurs. Oct. 2, 2008**

**Thurs. Oct. 9, 2008** Professor Laura I. Clarke, NCSU --

**Thurs. Oct. 16, 2008** (fall break 10/17/2008)

**Thurs. Oct. 23, 2008**

**Thurs. Oct. 30, 2008**

**Thurs. Nov. 6, 2008** Professor Shane Hutson, Vanderbilt U. and WFU Alum (Annual Homecoming Speaker organized by Alumnus Chandran Sabanayagam)

**Thurs. Nov. 13, 2008** Professor Patrick Brady, U. Wisconsin-Milwaukee -- host: Greg Cook

**Thurs. Nov. 20, 2008** 2008 Biophysics Symposium -- [Biophysics Across Length and Time Scales](#)  
A two day symposium co-organized and co-sponsored by Wake Forest University to be held at the Friday Center For Continuing Education in Chapel Hill, NC.

# Physics Department

- Careers in physics program
- SPS (Society of Physics Students)  
First meeting on Sept. 9<sup>th</sup> at 11 AM.
- T-shirt design contest
- SCB program – **Dany Kim-Shapiro**

**Fred Salsbury**

## Other programs:

- Women in Science (see sign up sheet)
- Scholarships for science students (Churchill, NSF, Goldwater)
- Undergraduate Research Symposium -- Sept. 26<sup>th</sup>

# Physics Department

- **Undergraduate honors and award programs**
  - **Presentation by Greg Cook.**

# Physics Department

- Lab TA, Tutorial, and Grading Opportunities
  - **Undergraduate TA's and graders have forms in their mail boxes and should return them to Judy Swicegood soon.**
  - **Announcements by Keith Bonin**

# Physics Department

- **Research opportunities**
  - **Undergraduate students are especially encouraged to participate; course credit, WFU Fellowships, individual faculty grants**



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# Wake Forest

## RESEARCH FELLOWSHIP PROGRAM

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**RESOURCES**

### **ABOUT THE PROGRAM**

The Wake Forest Research Fellowship Program is designed to encourage individual Wake Forest undergraduates to join their professors as junior partners on scholarly research projects. While improving opportunities for mentoring and helping students to progress into advanced work, these are also a means of supporting successful and dedicated students with financial scholarships. Up to 55 competitive, merit-based fellowships will financially assist students who collaborate with faculty mentors. Since the Plan for the Class of 2000 stated that some fellowships should be used to encourage the professional growth of students from groups that are under-represented in certain disciplines, ten of these Fellowships will be set aside for the Women in Science Program.

For the summer of 2008, up to 55 fellowships will be awarded. Each award will provide a \$4,000.00 stipend. Fellows will be expected to engage in research fully across a 10 - week period. It will not be possible to enroll for any summer sessions' courses while working as a summer fellow. Each candidate is invited to apply for support for on campus housing. The fellowship will cover one - half of the charge for a double room across both summer terms.

# Physics Research Participation – Experimental Physics

Research Group	Area of research	Current students
Keith Bonin	Laser and optical physics, biophysics	<b>Sanjay Talluri*</b>
David Carroll	Nano-technology	Jerry Kielbasa, Baxter McGuirt, Yuan Li, Jie Liu, Wanyi Nie, Eric Peterson, <b>Alex Taylor*</b>
Martin Guthold	Atomic force microscopy; Biophysics	Christine Carlisle, Samrat Dutta, <b>Maggie Baldwin, Alyssa Chang, Patrick Nelli, Calli Nguyen, Eric Roll, David Rosile*</b>
Dany Kim-Shapiro	Biophysics	Ivan Azarov, Landon Bellavia, <b>Natalia Azarova, Michael Font, Brad Goetz, Chris Tegeler, Pam Wang*</b>
Jed Macosko/ G. Holzwarth	Biophysics	Todd Fallesen, Joel Grim, <b>Matt Steen, Matt Walb*</b>
Richard Williams	Solid state and laser physics	Jerry Kielbasa, <b>Kyle Lipke*</b>

**\*Undergraduate students**

## **Physics Research Participation – Theoretical/Computational Physics**

<b>Research Group</b>	<b>Area of research</b>	<b>Current students</b>
<b>Paul Anderson</b>	<b>Gravitational physics</b>	<b>Jason Bates, <span style="color: red;">Wilson Cauley*</span></b>
<b>Eric Carlson</b>	<b>Particle physics and astrophysics</b>	<b><span style="color: red;">Erik Forseth*</span></b>
<b>Greg Cook</b>	<b>Gravitational physics and computational astrophysics</b>	<b>Jason Grigsby</b>
<b>Jacquelyn Fetrow</b>	<b>Computational biophysics</b>	<b><span style="color: red;">Matt Gottbrecht, Katie Flowers, Pam Marcott, Cam Mateus, Mary Beth Ward*</span></b>
<b>Natalie Holzwarth</b>	<b>Computational materials physics</b>	<b>Graham Lopez, Xiao Xu</b>
<b>William Kerr</b>	<b>Solid state physics</b>	
<b>Fred Salsbury</b>	<b>Computational biophysics</b>	<b>Brian Kolb, Ye Yuan</b>
<b>Timo Thonhauser</b>	<b>Condensed matter theory and materials science</b>	

**\*Undergraduate students**

# **Undergraduate physics students who participated in research this summer:**

## **At WFU:**

**Natalia Azarova, Michael Font-- Dany Kim-Shapiro  
Sanjay Talluri -- Keith Bonin  
Patrick Nelli, Calli Nguyen -- Martin Guthold**