

Rice Photonic Owls Student Chapter of SPIE

Annual Activity Report

November 1, 2009

Covering November 1st, 2008 – November 1st, 2009

1. Student Officers:

President: Nicholas King, Email: nking@rice.edu, Member#: 03308185

Vice President: Ying Hu, Email: ying.hu@rice.edu, Member#: 03121907

Treasurer: Mark Knight, Email: mwk@rice.edu, Member#: 03143887

Co-Secretaries: Britt Lassiter, Email: lassiter@rice.edu, Member#: 03072388

Kui Bao, Email: kui.bao@rice.edu, Member#: 03259889

2. List of Chapter Members: 18 Members

<u>Member Name</u>	<u>Membership Expiration Date</u>
Tamer Ali	31 October 2009
Kui Bao	28 January 2010
Lissett Bickford	30 November 2010
Laura Carpin	30 November 2009
Joseph Chang	4 January 2010
Michael Cordray	31 December 2009
Nche Fofang	31 August 2010
Liang Gao	31 October 2009
Nathaniel Grady	14 October 2010
Feng Hao	30 September 2010
Ying Hu	31 December 2009
Nicholas King	14 October 2010
Mark Knight	31 August 2010
Britt Lassiter	13 October 2010
Nastassja Lewinski	30 November 2009
Sterling Noelck	5 January 2010
Tae-Ho Park	30 September 2010
Chaitra Rai	4 February 2010

3. Chapter Activities:

1. **FP3 Series Meetings:** We have continued our FP3 (Fortnightly Photonics Pizza Presentations) meetings on a mostly monthly basis. At these meetings, both members and non-members can meet to enjoy a pizza lunch and soft drinks while hearing optics and photonics related presentations. These meetings provide a great forum for members to gather on a regular basis and have served as a nice recruitment tool since non-members may also attend.

During the fall term of 2008, we continued the practice of allowing the presenter to choose his/her topic of choice for the presentations. However, during the Spring term of 2009, we changed the topics to a more focused format. During this term, two prominent members (Nader Engheta and Federico Capasso) of the nanophotonics community visited Rice to deliver invited lectures. On the suggestion of one of our members, we changed the format such that during the time leading up to these invited lectures, presenters at our FP3 meetings presented recent papers and results from each of these scientists. This resulted in our chapter members being more informed and prepared for the lectures, and brought about more enthusiasm for the FP3 meetings. We hope to continue this more focused format for future FP3 meetings preceding important invited lectures.

2. **Joint Seminar with Notre Dame SPIE chapter:** On April 23, 2009, we held a joint seminar with the Notre Dame SPIE student chapter. The Notre Dame chapter first contacted us with the idea, and we gladly accepted their invitation. The joint seminar was held remotely using video conferencing software. One member from each chapter was chosen to present his/her recent research. Mark Knight from the Rice Photonic Owls chapter gave a presentation titled "A Whirlwind Tour of Nanoscale Optics and Broken Symmetry" followed by David Baker from the Notre Dame chapter, who spoke about "Transient Absorption Spectroscopy for Tomorrow's Solar Power." This successful event provided an opportunity for the members of each chapter to learn about a somewhat unfamiliar topic and about the latest discoveries in these areas while also meeting and interacting with the members of another chapter.
3. **Officer Travel Grant (Optics & Photonics Conference):** Under the Officer Travel Grant, Photonics Owls our previous secretary, Tamer Ali, attended the 2008 SPIE Optics & Photonics Conference in San Diego.
4. **Officer Elections:** Officer Elections were held on October 14, 2009.
 - **Previous Officers** (2008-2009 academic year):

President: Britt Lassiter

Vice President: Rizia Bardhan

Secretary: Tamer Ali
Treasurer: Mark Knight

• **Current Elected Officers** (2009-2010 academic year):

President: Nicholas King
Vice President: Ying Hu
Secretary: Britt Lassiter
Secretary 2 (Web site developer): Kui Bao
Treasurer: Mark Knight

***Note:** A second secretary position was added this year. Our chapter would like to make a new and updated website. The new secretary position will be in charge of developing and maintaining the new website, while the original secretary position's responsibilities will not change.

4. Planned Future Activities:

The Photonic Owls chapter is planning the following activities over the coming year:

- 1. FP3 Series Meetings:** We plan to continue the FP3 (Fortnightly Photonics Pizza Presentations) lunchtime presentations, where members gather to listen to optics related presentations over pizza. We will maintain the monthly meeting schedule established last year due to a positive response from members. This relaxed meeting schedule (compared to the previously fortnightly schedule) has reduced the pressure on the volunteer participation of student presenters. Topics covered in the presentations may include current photonics research being done by members, interesting papers in recent literature, or review the work upcoming guest speakers host by our chapter or various university departments. We are planning to have 8-9 FP3 meetings over the course of the 2009-2010 academic year, with an expected attendance of 10-15 people at each meeting.
- 2. Invited Speaker:** We hope to invite a guest lecturer along with the Electrical and Computer Engineering or Physics & Astronomy Dept. at Rice. We plan to submit a visiting lecturer grant proposal to SPIE and to partially pay for the guest lecture.
- 3. Joint Social Event:** We are assisting with execution of a joint social event with the Rice University Physics & Astronomy Dept. Graduate Student Association and the Chemistry Dept. Graduate Student Association. The event will be held in mid-November 2009 and include barbeque-style refreshments. We hope that co-hosting such an event will increase the Photonic Owls broader campus visibility.

4. **Chapter Photo Contest:** To encourage participation and enrollment in the chapter, we plan to hold our first Photonic Owls photo contest. This will involve images of interesting or novel optical effects observed during research or everyday life. Participation will be open to the faculty, staff, and general student body as well as chapter members. Voting will be done by chapter members at an FP3 meeting near the end of the academic year and prizes awarded to the winners.
5. **Observatory Outing:** We have started preliminary discussions for a trip to a “local” observatory. While Rice University has a functional observatory on campus, light pollution from the surrounding city limits the experience. We hope to arrange a tour of a larger and more remote observatory conducting active research.
6. **Website Redesign:** We plan on upgrading the chapter website to better reflect the current members and activities we sponsor.
7. **Chapter T-shirts:** We are planning to make new chapter T-shirts. Subsidizes would be provided for current members, and additional shirts sold at full price to non-members will raise funds for future chapter activities. Designs from the previous year are being considered along with new entries from current members.

5. Finances:

1. **Beginning Balance: \$1241.90**
2. **Funds Raised/Expended:**

Funds Raised: \$305.18

- Grant from Rice University Electrical & Computer Engineering Dept (Fall 2008): (listed in 2008 Annual Activity Report)
Total: **\$0.00** (accounted for in Beginning Balance)
- Grant from Rice University Electrical & Computer Engineering Dept (Spring 2009):
Total: **\$303.94**
- Rice University Student Activity Fund Interest:
Total: **\$1.24**

Expenditures: \$762.26

- Pizza and refreshments (from Papa John's Pizza) for FP3 meetings:
Total: **\$410.44**
- Pizza and refreshments (from Papa John's Pizza) for 2009 Officer Elections:
Total: **\$48.72**
- Academic year-end: Remaining balance of Fall 2008 (initialized in 2008 Annual Report) and Spring 2009 ECE grants returned to zero:
Total: **\$303.10**

3. Ending Balance: \$783.92