The Arkansas Laserbacks SPIE Student Chapter Annual Report
for Summer 2017 through Summer 2018 Year

Compiled by 2017 – 2018 Chapter Secretary: Stephen Bauman

List of Active Due Paying Members:

- Stephen Bauman: sjbauman@uark.edu
- Abayomi Omolewu: aomolew@uark.edu
- Ahmad Darweesh: aadarwee@uark.edu
- David French: daf001@uark.edu
- Eesha Andharia: esandhar@uark.edu
- Amy Powless: amy.powless@gmail.com
- Grey Abernathy: gabernat@uark.edu
- Solomon Ojo: soojoo@uark.edu
- Oluwatobi Olorunsola: ogolorun@uark.edu
- Aida Sheibani: asheiban@uark.edu
- Catherine Tiner: cstiner@uark.edu

Past Officers: (2017 – 2018)
- David French – President
- Zachary Brawley – Vice President
- Abayomi Omolewu – Treasurer
- Stephen Bauman – Secretary

Newly Elected Officers: (2018 – 2019)
- Ahmad Darweesh – Secretary
- Oluwatobi Olorunsola – Treasurer
- David French – Vice President
- Abayomi Omolewu – President

Past Chapter Advisor: (2014 – 2018)
- Dr. Joseph Herzog

Newly Appointed Advisor: (2018 – Future)
- Dr. Timothy Muldoon

Activities:

1. In August, Laserbacks chapter members attended the 2017 SPIE Optics + Photonics conference in San Diego. Both students presented research work, and one attended the student leadership workshop.
2. Smaller organizational meetings were held throughout the fall 2017 and spring 2018 semesters. Some of these meetings were used to recruit new members as well as to hold various professional development and training seminars. $81.44 were spent on refreshments for such events, during which attendance was typically around 15 students. There is a $4.00 yearly service fee through the University of Arkansas Treasurer’s Office for utilizing a Registered Student Organization bank account.

3. In November, 2017, visiting lecturer Christos Argyropoulos (University of Nebraska) was invited to campus to give a talk on his research, as well as meeting with students and
faculty to discuss research topics and career advice. The event was also used as a recruitment opportunity for new students. The SPIE Visiting Lecturer funding was used for this event. Approximately 40 students and faculty attended Christos’s talk, and he had the chance to meet with Physics Department faculty during lab tours. To cover expenses for the talk, we spent $182.16 to help attract more students and faculty to the event. Taking Christos to dinner with students wanting to meet with him outside of the lab settings, we covered $127.39 to help more student members to attend dinner with Christos.

4. During the 2017 fall semester, the Laserbacks organized an outreach event at the local Siloam Springs High School during which we set up an interactive lab to teach basic spectroscopy to an after-school science club. We provided our own spin on the homemade CD spectrometer project developed by the University of Exeter’s SPIE chapter (thanks to Erick Burgos Parra for the assistance and communication). We had been fortunate enough to obtain a fully functional commercial spectrometer courtesy of Ocean Optics for conducting outreach events. At this event, students built their own spectrometer to understand how a simple version works. Then, we had them prepare liquid solutions containing different spices often found in the kitchen (per an Ocean Optics demo that can be found online). The students then used absorption spectroscopy to identify the previously unknown spices in each solution by comparing to our reference samples. We spent $92.72 of chapter funds on supplies for this event.
5. During the 2018 spring semester, the Laserbacks organized an outreach event for local youth and families at the Fayetteville Public Library. This event was held after school hours on a weekday as part of the library’s public events schedule. We provided demonstrations of waves and optics through the use of a Ruben’s tube, Chladni Plates, sound wave demos, vibrating strings with strobe lights, lenses, mirrors, gratings, prisms, polarizers, etc.. We set up some craft exhibits for participants to be able to build optics-related take-home demonstrations. We contacted Tatev Chalyan from the University of Trento Chapter for her help in utilizing the Magic Water demo that they developed. The money spent to procure supplies for activities during the event was $84.39. Also, $70.49 were used to cover meals for chapter volunteers who sacrificed time to help make the event a success. Approximately 50 – 70 people attended the event.
6. During the spring semester of 2018, the Laserbacks hosted an OSA visiting lecturer, Arlene Smith, to talk about her industry experience working at Avo Photonics. OSA chapter funding supported this event, at a cost of $159.28.

Future Activities:

1. We plan to hold meetings for recruitment during the fall and spring semesters, as well as meetings incorporating technical and/or informational presentations.

2. We have contacted Jean-luc Doumont about conducting a lecture during the spring 2019 semester, which will be a campus-wide event.
3. We plan to host a visiting lecturer, TBD, during the fall 2018 semester through the OSA visiting lecturer grant.

4. We will hold more outreach events for local students during which we will utilize and improve some of our previous outreach demonstrations and potentially develop new ones.

5. We will hold a year-end social event for chapter members and potential new members from similar areas of study during the spring semester.

Financial Information:

We have chosen to remain a due-free chapter and have not completed any local fundraising thus far. The total amount of funding to which the student chapter had access for 2017-2018 was the $500.00 awarded via the SPIE Student Chapter Activity Grant. As we are a joint chapter with OSA, we also received $300 in funds through the OSA chapter activity grant. The breakdown of expenses is described above by each event and in the table below for activities that occurred over the duration of the 2017 – 2018 school year. The Laserbacks chapter tax EIN is 81-0906701.

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<th>Amount</th>
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<th>Total/Source/Destination</th>
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