



**ANNUAL REPORT**  
**2012-2013**

# I. SPIE CHAPTER MEMBERS

## - Our Officers:



**Caetano Sabino (President)**  
caetanosabino@gmail.com



**Tania Yoshimura (Vice-President)**  
tania.my@gmail.com



**Nathali Pinto (Secretary)**  
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**Ana Carolina de Magalhaes (Treasurer)**  
anacmagalhaes@yahoo.com.br



**Elisabeth Yoshimura (Advisor)**  
e.yoshimura@dfn.if.usp.br

## - Our Chapter Members:

Name	Expires	Name	Expires
Ana Carolina de Magalhaes	23 Mar 2014	Gustavo Campos	14 Apr 2014
Andrea Calmon N Gama	28 Jun 2014	Larissa Nogueira da Silva	21 Mar 2014
Antonio Da Silva Santos	20 Jun 2014	Marcelo Pires de Sousa	18 Oct 2013
Arthur Maximo	02 Oct 2013	Nathali Pinto	26 Aug 2014
Caetano Sabino	22 Mar 2014	Patrícia Rodrigues	27 Sep 2013
Camila Silva	07 Apr 2014	Phamilla Sousa Rodrigues	07 Jun 2014
Daniel Torres	15 Oct 2013	Priscila F. C. de Menezes	21 May 2014
Danilo Silva	09 Jul 2014	Renata Da Costa	02 Oct 2013
Débora Aureliano	23 Jun 2014	Sebastião Pratavieira	11 Nov 2013
Fábio Sellera	21 Apr 2014	Tania Yoshimura	20 Jun 2014
Felipe Ramos	11 Jul 2014	Lilian Moriyama	Alumni

## II. CHAPTER ACTIVITIES

Since the previous report our group grew from 14 to 23 members. Our mission remains to educate students on optics and photonics so the Chapter's main activities are focused on promoting those topics.

Several chapter meetings took place at the University of São Paulo to organize our activities throughout the year, including:

- Student attendance at SPIE Photonics West;
- SPIE officer travel grant use;
- Visiting lecturer event organization;
- Advanced school on modern trends of biophotonics (São Carlos, SP, Brazil): mediated SPIE sponsoring;
- SPIE education outreach activities.

### 1. SPIE Photonics West

Ana Carolina de Magalhães went to SPIE Photonics West (San Francisco, CA) to present two authored papers: "*Red and infrared light distribution in blood*" and "*How low level laser therapy can change mechanical properties of cells*". She also co-authored and presented "*Mapping optical properties of rat brain for LLLT dosimetry*". Besides the conference attendance, she was able to participate in the student activities that took place there.

### 2. SPIE Officer Travel Grant

The 2013 SPIE Officer Travel Grant was awarded to Arthur Maximo to visit the SPIE Optics + Photonics in San Diego, CA. During the event, he could attend to several presentations and participate in student activities. Maximo also participated in the *Effectiveness Technical Presentations course* and the *Student Chapter Leadership Workshop*. An informal meeting with Latin America chapter members took place during the event to lay the foundations for a FOCUS conference in Latin America.

### 3. Visiting lecturer

With resources from the SPIE Visiting Lecturer Grant and our University's Physics Institute we were able to invite Professor Michael Alley (Penn State University, PA) to give a two-days open mini-course and a workshop to the chapter members on the topics of scientific writing and presentation:

- **Open mini-course, Physics Institute Auditorium (August 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup>):**

On the first day, Professor Alley presented his talk on *Making Presentations about Scientific Research*, aiming researchers and students to make their presentations more understandable, memorable, and persuasive. The *Writing Articles about Scientific Researches* talk was given on the next day, where the skills to improve the way we communicate our work in journal papers and conference publications were provided. The last topic was addressed on the 7<sup>th</sup>, and focused on project writing.

The event disclosure consisted of posters placed in University buildings and mailing. Photos of the mini-course can be seen below:



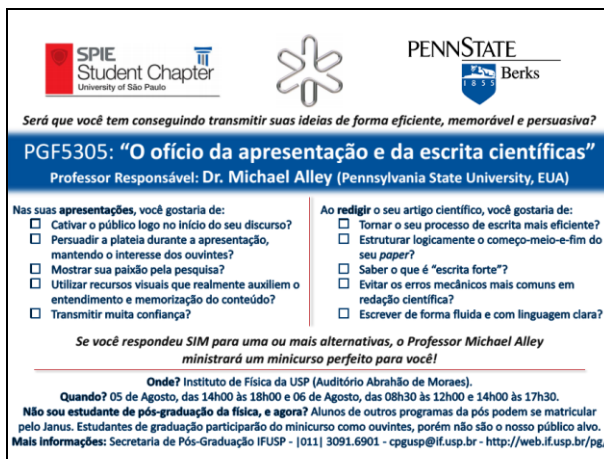
Professor Alley and attendees



Professor Alley is a presentation enthusiast!



Audience



Disclosure poster

- **Workshop for chapter members, Physics Institute Seminar Room (August 7<sup>th</sup>):**

With a preparation assignment received one week before, participants were encouraged to put into practice the acquired skills from the previous days, presenting their current work to Professor Alley, who gave tips and suggestions to improve even more their scientific presentation abilities.

Professor Michael Alley gave our chapter two copies of his book *“The craft of scientific presentation – 2<sup>nd</sup> Edition”*. The books now take part on the Medical School and Physics Institute library’s collections.

During the professor’s stay, our chapter members could also enjoy his presence during dinners and lunches, touring around São Paulo city and our University.



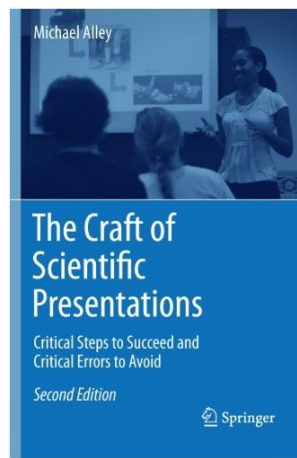
Students presenting to Professor Alley



Professor's considerations



Chapter members with Professor Alley



Book donated to our chapter

#### 4. Advanced School on Modern Trends of Biophotonics for Diagnosis and Treatment of Cancer and Microbial Control, São Carlos, SP

The Biophotonics School had the participation of almost 100 students from 21 countries in South and North America, Europe, Asia, and the Middle East. They heard talks by speakers from Brazil, Canada, UK, Italy, Sweden, and the USA.

Our chapter co-sponsored the event and SPIE participated in as a sponsor and funder, contributing with lecturers and the Student Best Paper Award.

Speakers funded by SPIE:



SPIE Past President **Katarina Svanberg**  
Lund University, former SPIE President  
Spoke on laser spectroscopy and  
photodynamic therapy for tumor  
diagnostics and treatment



SPIE Board Member **Bruce Tromberg**  
Beckman Laser Institute  
Spoke on spectroscopic techniques and  
tissue optics

Some photos from the Biophotonics School:



Attendees and speakers gathered for a group shot



Student Best Paper Award: Marta Gordel from Wroclaw Univ. of Technology and CNRS Ecole Normale Superieure de Cachan



SPIE Digital Library promotional booth

More information at: <http://spie.org/x93877.xml>

## 5. SPIE education outreach activities

Our chapter submitted an application for the SPIE Outreach Grant on May. On August we were awarded with funds to start our project, aimed to impact students and increase optics and photonics awareness. We primarily intend to introduce the knowledge about the physical foundations of optics and photonics to young public schools students in the city of Sao Paulo, Brazil, trough experiments and short presentations boosting their learning by instigating the interest and curiosity on basic and techno-scientific subjects. Four public schools, totalizing about 1000 young students, have already shown interest on our project.

Besides that, our group joined a task force to participate on "*Olimpíada USP do conhecimento*" (rough translation: University of Sao Paulo's Knowledge Olympics). We were also congratulated with funds to put a similar project into practice, with collaboration from other USP students and professors.

### **III. FINANCIAL INFORMATION**

Funds received from SPIE were converted into Brazilian Reais (BRL) according to the official currency exchange rate at the date. The bank system charges a variable fee for these transactions, as detailed in the table below. Our main expenses were directed to our visiting lecturer event demands (meals, poster disclosure, coffee break snacks...) and polo shirts confection.

<b>Date (mm/yyyy)</b>	<b>Description</b>	<b>(BRL)</b>
<b>06/2012</b>	Initial	1,003.85
<b>06/2012</b>	Exchange rate (USD/BRL)	2.01
<b>06/2012</b>	Tax fee	-44.43
<b>12/2012</b>	Polo shirts + embroidery	-875.61
<b>12/2012</b>	Residual	83.81
<b>01/2013</b>	Residual amount 2012	83.81
<b>04/2013</b>	Initial	1,301.40
<b>04/2013</b>	Exchange rate (USD/BRL)	1.86
<b>04/2013</b>	Tax fee	-44.82
<b>07/2013</b>	Alley's course posters	-75.00
<b>07/2013</b>	Polo shirts + embroidery	-476.85
<b>08/2013</b>	Course coffee breaks	-173.34
<b>08/2013</b>	Member's Lunch with M. Alley	-112.53
<b>09/2013</b>	Residual	502.67

### **IV. FURTHER STEPS**

During the next year our chapter would be mainly focused on the outreach activities.

The Chapter's schedule also includes:

- Elections;
- Visiting lecturer (2014 first semester);
- SPIE Photonics West officer attendance;
- Connection with Latin American Chapters.