

# SPIE Annual Report 2017/2018

## La Sapienza SPIE Student Chapter

### 1. Chapter members

#### 1.1 Chapter officers contacts

Name & Surname	Role in the Chapter	Email addresses
Fabio Sciarrino	Advisor	fabio.sciarrino@uniroma1.it
Taira Giordani	President	taira.giordani@uniroma.it
Andrea Geraldini	Vice President	andea.gera1993@gmail.com
Emanuele Polino	Secretary	emanuele.polino@gmail.com
Iris Agresti	Treasurer	iris.agresti@gmail.com

#### 1.2 List of chapter members

Taira Giordani, Iris Agresti, Davide Poderini, Emanuele Polino, Andrea Geraldini, Michele Mancusi, Mauro Valeri, Marco Romano, Alessia Suprano, Sara Perotto, Chiara Esposito and Riccardo Gasbarrone.

### 2. Chapter activities

During this last year, the chapter activities have been focused on two main points. One regarded outreach both in our university and high schools elsewhere in Rome. The second goal was to build a network of contacts and experiences outside the chapter. For each purpose we have organized and attended different events that we are glad to show in detail in the following.

#### 2.1 Outreach activities.

The chapter has a long tradition for what concerns outreach activities. Then we have exploited past experiences in the field, for organizing related events. Firstly, the members have put efforts into visits in two high-schools in Rome. Our program for schools has a precise format. We usually start explaining the basic properties of light, such as wavelength, frequency and velocity of propagation. Then we move to more complex concepts and phenomena regarding the interaction of light with matter: refraction and reflection laws, diffraction, Rayleigh scattering and interferometry. Each topic is accompanied with live experiments that students can easily reproduce by their own. During these events we have observed a genuine interest both from students and local teachers. They asked lots of questions about light phenomena but also regarding our experience as physics students and chapter members. For the visit to the school "Liceo Anneo Seneca", the head master assigned us the big hall: this made us very proud and excited!

Our outreach program did not finish at high school. We did some lectures during the course on photonic technologies by our advisor Fabio Sciarrino. These lectures were addressed to outstanding bachelor students attending SASS (School of Advanced Studies of Sapienza). In this occasion we explain the possibility to exploit single photon states to encode information in the field of quantum optics and information. The SPIE outreach optics kits and Thorlabs kit for quantum cryptography (bought two years ago with SPIE fundings) helped us for



Figure 1. Pictures from the visit to "Lucio Anneo Seneca". The event took place in the big hall of the school. The audience was huge!



Figure 2. Pictures from the visit to "Istituto Sant'Appollinare". We had a very warm welcome from students!

capturing the attention of such more expert audience. Furthermore, we believe that was also a very useful context to make the chapter more popular in the university and reach new people.

## 2.2 Networking and connection with chapters abroad.

We are still a small student chapter. Then is crucial for us to learn how to enlarge our impact from the experiences of other chapters. In February the Vice President Andrea attended the “6th International Symposium on Optics and its Applications” organized by SPIE chapter of Trento, Italy. Andrea had the possibility to present a poster, explaining who we are and the chapter activities. Furthermore, he met the members of the local chapter the and collaborate with them for the success of the whole event. Thanks to this experience we are still in touch with Trento’s guys.

In August we used the SPIE travel grant to take part at the Student Leadership Workshop in San Diego. Our President Taira attended such beautiful conference. She met lots of people from all the worlds and had the possibility to share and discuss different experiences on chapter activities and management. We hope to obtain this grant for the next year in order to give the same opportunity to another member.

We have exploited our monthly reunions to discuss about these experiences and find inspiration for the next year. Reunions were also the occasion to invite our former member Adil Sayed Rab. After the graduation he left the academia and started a new career in industry. His story has been very interesting for the members, since provided a different perspective on the possibilities for professional development.

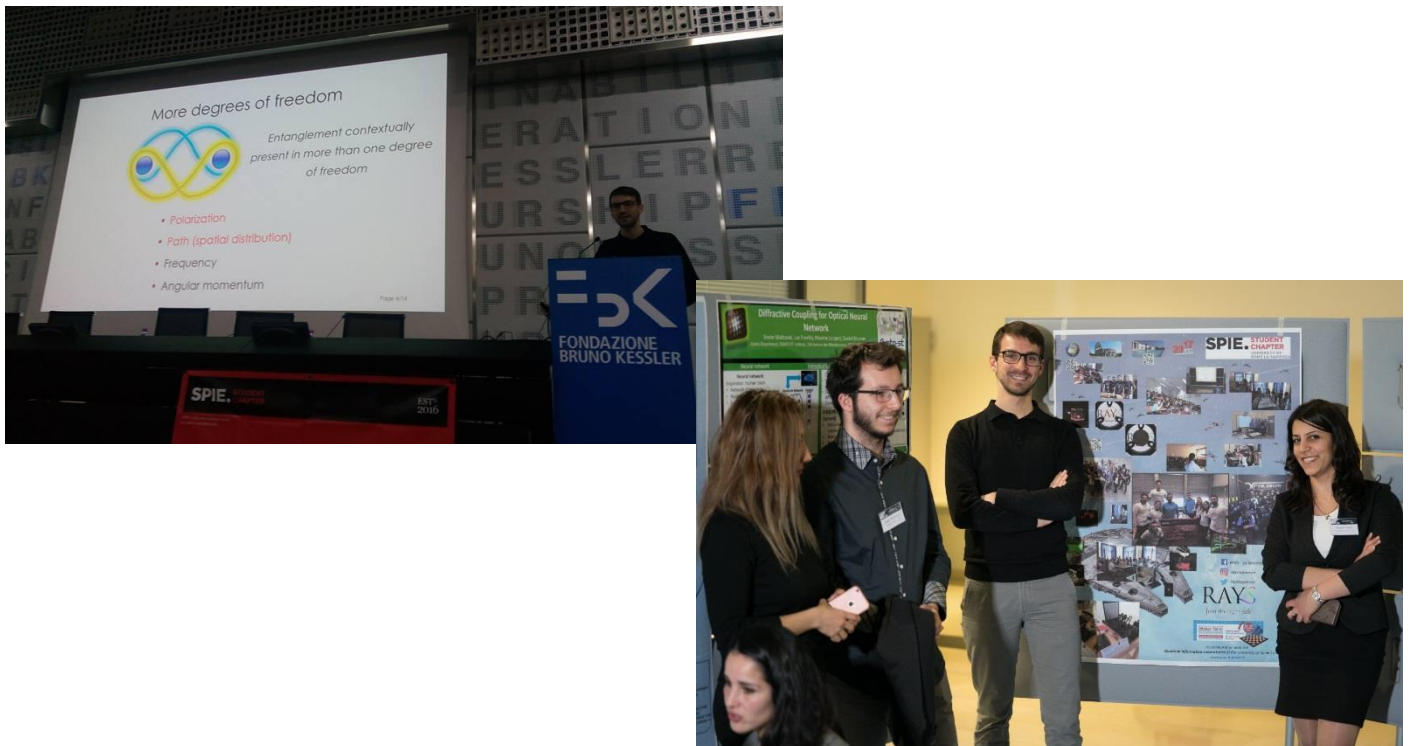


Figure 3. Vice President Andrea at “6th International Symposium on Optics and its Applications”, Trento, February 2018



Figure 4. Pictures of the president Taira from San Diego. She had the possibility to meet people from all the countries and to exchange experiences with the chapter management.



Figure 5. Chapter reunion with a special guest: former member Adil. He shared his experience outside the academia after graduation

### 3. Goals for the next year

- Continue our program in scientific divulgation and outreach.
  - More events in middle and high schools
  - Improve our presence in the university
- Organize events in the Physics Department
  - Invite professors for lectures and seminaries
  - Use the Lecturer Grant
  - Organize a SPIE FOCUS Conference and initiatives for professional development.
- Increase the impact of the Chapter and the number of the members

### 4. Financial details

Period	Description of the expenses	Amount (USD)	Amount (EUR)
	Ending Balance 2016/2017 (see previous report for details)	1208	1436
December	SPIE Activity Grant	+ 500	+ 414
	Visit at "Lucio Anneo Seneca"		- 114,61
February	Renew of the website domain		- 133
	Poster for the conference in Trento		- 50
April	Visit at "Istituto Sant'Apollinare"		- 20
	Reunion with guest		- 30
	Ending Balance 2017/2018	1707,01*	1502,39

\*according to the current change

