

Università degli studi di Napoli Federico II Chapter – Annual Report 2014

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Chapter activities:

For the 2015 our chapter has planned two big events.

The first is a collaboration with the PIQUE project to organize a school in Rome, titled “Scientific School in integrated quantum photonics applications: from simulation to sensing”. The school is devoted to students and young researchers looking for applications in quantum information or in the field of quantum optics. For this project we applied for the Focus Conference Grant, and, after reviewing our request, SPIE has supported us with a \$2000 funding and a special Visiting Lecturer Grant. We have used the latter to invite the prof. Ernesto Galvao for a talk titled “Boson Sampling”. The rest of funds has been used to cover scholarship expenses for a part of the applicants.

The school will take place from the 6th to the 10th of July, in the Physics department of University of Rome “La Sapienza”. Five of our members have been selected to actively participate to the school. In Rome, we also hope to promote the interest towards SPIE Student Chapters. In fact our SPIE chapter is the only one in Italy, despite there being a strong tradition in the field of Optics.

The second big event is dedicated to the diffusion of optics and photonics knowledge through simple and impressive experiments. For this project we are supported by SPIE with a SPIE Outreach Grant of \$4250. The event was planned for this summer, but this year we have had the amazing opportunity to participate to “FUTURO REMOTO”, the biggest scientific fair of Naples. We have decided to present our activity during this big four-day event, that is the perfect stage to have the best visibility and to come in contact with as many people as possible. We will participate for four days, from 15 to 18 October, and exploit this opportunity to promote the IYL.

While organizing these two events, we also collaborated with the OSA Students Chapter and Young Minds Section of Naples for common activities, described in the following.

Passione Fisica

Our chapter supported the event “Passione Fisica” on 3rd May 2015, at “Città della Scienza”, an interactive science museum in Naples. “Passione Fisica” is a day dedicated to popularization of science through Physics experiments. The event has seen the collaboration of Young Minds Section of Naples, Physics’ students,

researchers and professors of University of Napoli "Federico II" Physics Department, researchers of the Astronomical Observatory of Capodimonte in Naples and high school students. The event was born two years ago as a way to gather funds for the reconstruction of the science museum, which was destroyed by arson. Besides this aspect and, of course, spreading science culture and scientific knowledge, the aim of the event is to realize simple yet curious experiments with everyday materials in order to explain the physical principles beneath them. The event is designed both for adults and children with an interest in science. These experiments are reproducible at home and, most of all, fully interactive. Indeed both adults and children are engaged in discussions and attempts to understand the presented phenomena.

Link to the website of the event:

<http://www.cittadellascienza.it/notizie/physics-is-back-may-3rd/?lang=en>



Blackout

Together with the other student chapters in Naples we decided to celebrate the IYL 2015 in a very special way: shooting the short movie "Blackout".

The aim of this project is to underline the importance of light based technology in everyday life. This short film has been recorded in very different places, including a cinema! It will be shown in schools, during physics events and on websites starting from next summer.





Physics's Got Talent

We also collaborated to organize a competition for high school students, who were asked to realize a short video showing an experiment about any field of physics. Many schools took part to this activity. A group of professors of our department has judged the videos and elected the winners. They have been awarded with medals and didactic kits for their schools, in a ceremony which has been held in Naples Physics Department. About 100 students, belonging to the schools who joined the contest, took part to the event. During the ceremony the videos made by the participants have been shown and the students themselves have explained better how they performed the experiment, how they built the setup and the reasons who motivated them to join the contest. These latter short interviews underlined the importance to stimulate curiosity and passion about physics among the younger generation of students.

We allocated three prizes: one called “popular award” because it was chosen by the major number of like through the official page of the event on facebook and youtube, and two prizes selected by a jury of professors and members of our section.

**Sei uno studente di scuola superiore?
Partecipa al grande concorso
organizzato dall'associazione studentesca
Young Minds Napoli**

Physics's got T★LENT

Realizza un esperimento di fisica a tua scelta, filmalo e invia il filmato a physicsgottalent@gmail.com entro il **7 Marzo 2015**
In palio **500€** e la possibilità di riprodurre dal vivo il proprio esperimento durante l'evento «Passione Fisica» presso Città della Scienza

Il concorso prevede la creazione di un video in cui i partecipanti presentano un esperimento qualsiasi (interazione classica, applicazione dei principi di conservazione e relatività, la fisica dell'elettromagnetismo e l'ottica) ai partecipanti nella misura in cui questo esperimento sia realizzabile a scuola. Il concorso è riservato agli studenti degli istituti superiori che intendono partecipare al campionato in la propria scuola (fino al 30 marzo).

Il video deve essere diretto massimo di 7 minuti e può essere realizzato in qualsiasi formato. Bisogna indicare titolo dell'esperimento, nome, cognome, indirizzo email, recando l'etichetta di un'adesione del gruppo.

Il concorso prevede l'assegnazione di tre premi:

- 1° classificato miglior video, scelto dalla giuria tecnica;
- 2° classificato miglior video, stabilito dalla giuria tecnica;
- 3° premio miglior video popolare, stabilito dal numero di "mi piace" ottenuti entro la data del 30 marzo 2015.

Mercoledì 31 Marzo 2015 alle ore 12:00 presso l'aula Consiglio del Dipartimento di Scienze Fisiche si svolgerà la proiezione dei video selezionati, e la premiazione dei tre vincitori.

Young Minds
SA SPIE Student Chapter

Financial information:

	incoming	outcoming
Beginning balance	0\$	0\$
SPIE grant for PICQUE School	2000\$	
SPIE Outreach Grant	4250\$	
Scholarship for PICQUE School		2000\$
Ending balance	4250\$	