



1. Elected Officers

President: Jan Gieseler jan.gieseler@icfo.es #3271413

Vice-President: Michael Geiselmann michael.geiselmann@icfo.es #3312526

Secretary: Marina Mariano Juste marina.mariano@icfo.es #3318658

Treasurer: Rafael Betancur Lopera rafael.betancur@icfo.es #3124832

2. Current Chapter Members:

Venkata Badarla
Stefan Bálint
Federica Beduini
Rafael Betancur Lopera
Olga Borovkova
Marta Castro Lopez
Seth Cousin
Alberto Curto
Yannick de Icaza Astiz
Chirag Dhara
Jon Donner
Ulrich Ebling
Parisa Farzam
Michael Geiselmann
Dhriti Ghosh
Jan Gieseler
Alexander Gruen
Philipp Hauke
Marc Jofre
Omid Kokabee
Marco Koschorreck
Marina Mariano Juste
Mónica Marro Sánchez
Luis Martinez
Armand Niederberger
Omar Olarte
Maria Ortega
Abdiel Pino
Saurabh Raj
Maurizio Righini
Francisco Silva
Chaitanya Suddapalli
Osamu Takayama
Stephan Teichmann
Domenico Tulli
Giorgio Volpe

Florian Wolfgramm
Can Yao

3. Current Activities (August 2009 – August 2010)

3.1 Weekly Seminar

The members of ICFO-SPIE student chapters organize a series of seminar every Wednesday at our home institute, ICFO-The Institute of Photonic Sciences. The speakers are mainly PhD Students and Post-doc researchers, as well as undergraduate students, as professors at ICFO, and visitors. To encourage people to attend the seminar some drinks and snacks are also offered. This series of seminars provides a good opportunity for the chapter members to practice their communication and public speaking skills in front of a friendly audience, and to enhance information exchange between members and to broaden the members' knowledge in different fields of optics.

2009/07/15

PEYMAN ZIRAK 'Photodynamics Study of Some BLUF Proteins'

2009/07/22

TONG LAI CHEN 'Novel TiO₂ based transparent conductive oxide thin films'

2009/07/29

OMJYOTI DUTTA 'Unconventional Superconductivity in Bose-Fermi Mixtures'

2009/09/16

GIORGIO VOLPE 'Shaping the Optical Response of Nanoantennas'

2009/10/07

EDINA SZIRMAI 'Multicomponent Fermions on One-Dimensional Lattice'

2009/10/21

G. JOHN LAPEYRE 'Entanglement on Graphs: Percolation and Complex Networks'

2009/11/04

MATHIEU JUAN 'Self-Induced Back-Action Optical Trapping of Dielectric Nanoparticles'

2009/11/18

ROBERT SEWELL 'Atom Chip BEC Interferometer'

2009/12/02

UDO WEIGEL 'Cold Intense Electron Beams From NEA-GaAs'

2009/12/16

JUDITH DURÁ DÍEZ 'Real-Time Photodissociation Dynamics of CH₃I and (CH₃)₂ by Femtosecond Ion Imaging'

2010/02/10

SATISH RAO 'Fluorescence Photons Perform Work'

2010/02/24

JAN RENGER 'Free-Space Excitation of Propagating Surface Plasmon Polaritons by Surface-Enhanced Nonlinear Four-Wave Mixing'

2010/03/17

SUDHIR CHERUKULAPPURATH
'The Plasmon Talbot Effect'

2010/03/24

GERASIMOS KONSTANTATOS 'Colloidal Quantum Dot Solar Cells'

2010/03/31

SANDRO PERRONE 'Unfortunately the Replication Machinery is almost perfect'

2010/04/07

LE XUAN LOC 'KTP Nanocrystals for Nonlinear Microscopy'

2010/04/14

MARIO NAPOLITANO 'Taking Photos of the Magnetic Field...'

2010/04/21

JONATHAN A. PALERO 'Discovering the Color of life Beyond the Surface: Nonlinear Spectral Imaging Microscopy of living Biological Tissues'

2010/04/28

FILIP BEUNIS 'A Modern Version of Millikan's Oil-drop Experiment'

2010/06/02

LLUIS MASANES 'Quantum Theory from Four Requirements'

2010/06/16

OMID KOKABEE 'High Power, Highly-Efficient, Fiber-Laser Pumped Optical Parametric Oscillator'

2010/07/07

PHILIP BATES 'Measuring Dynamics on an Attosecond Timescale, Featuring the Animals of Attoscience'

2010/07/14

OLIVIER CHALUS 'High-repetition Rate, 6 Cycle Mid-IR OPCPA System'

2010/07/21

FRANÇOIS DUBIN 'From a Single Photon Source to a Single Ion Laser'

3.2 El Día de la Luz (The Day of Light)

'El Día de la Luz,' the day of light in Spanish, is our educational outreach activities to teach basics of optics to mainly local high school students. We invite high school students of age group in between 16-18 years and teachers to our institute to introduce optics to the students through presentations and demonstrations with every day examples of optics. In addition, this year was introduced the 50th anniversary of the laser.

By attending the program, students learn basic concepts such as polarization, wavelength, color, energy conversion, reflection and refraction in connection to every day experiences based on application optics. In one of these sessions, students are familiarized with polarization of light through plastic polarizers and self-made liquid crystal cells. In another session, they perform a series of simple experiments with mirrors, optical fibers and laser pointers in order to play with refraction and reflection phenomena. Furthermore, they experience how light is useful for our daily life. Energy coming from light will be converted to heat by a radiometer, also to electricity by a solar cell and students will be introduced to optical telecommunications.

1) MM Concepcionistes de Barcelona (13 April 2010)

27 students and teachers from MM. Concepcionistes de Barcelona visited ICFO to participate in the event. 7 volunteers from the chapter participated in the organization of the event.

2) IES Castellar (13 April 2010)

30 students and teachers from IES Castellar also visited ICFO to participate in the event. 7 volunteers from the chapter participated in the organization of the event.

3) Escola Vedruna (14 April 2010)

12 students and teachers from Escola Vedruna also visited ICFO to participate in the event. 6 volunteers from the chapter participated in the organization of the event.

4) Col·legi Mare de Déu del Carme (15 April 2010)

23 students and teachers from Col·legi Mare de Déu del Carme also visited ICFO to participate in the event. 7 volunteers from the chapter participated in the organization of the event.



(Left) Two student members Federica Beduini and Osamu Takayama explained the basis of light guiding. (Right) Student playing with one of the kits provided.



(Left) Students experimented the polarization of their mobile's LCD. (Right) Another important part from the polarization is the 3D movies, students enjoy 3D images and how stereoscopic vision works.



(Left) Students enjoy playing with plasma ball. (Right) Students also played with a telecommunication kit and learnt the importance of light in the communication between countries.

3.3 Life Research Fair(Fira Recerca en Directe)

Science fair organized in one of the emblematic Barcelona buildings. Aimed principally to high school students, but also to the general public, to explain the research carried out in Barcelona. ICFO-SPIE student chapter shown to assistants one topic related to the experiments of ICFO. This year we explained fiber optics and how we can guide light with them. Over 1500 visitors assisted to the event during 3 days in April, their age range was from 7 to 70 years old.

3.4 Open day of ICFO/Lab tour

ICFO Management and Engineering Units (3 and 4 May, 6 June 2010)
The members of ICFO- chapter guided 20 people in management and engineering units of our institute, ICFO. The participants went through a visit to three different research groups in ICFO, that is, Plasmon nano-optics group by Prof. Romain Quidant, Attoscience and ultrafast optics group by Prof. Jens Bierget, and Medical optics group by Prof. Turgut Durduran.

3.5 Coffee sessions

In this relaxed atmosphere, PhD students are encouraged to use this opportunity to learn more about their possible career paths.

1) Meeting with Dr. Michael Heckmeier

Round table meeting with coffee and snack with an industrial researcher and manager from Merck.

2) Meeting with Dr. Arjun Yodth

Round table meeting with coffee and snacks together with Dr. Yodth from the University of Pennsylvania

3) Meeting with Prof. Joseph Eberly

Round table meeting with coffee and snacks together with Dr. Eberly from the University of Rochester.

3.6 IONS Conferences

IONS, the International OSA Network of Students, connects young researchers with people from around the globe, all actively engaged in optics and photonics. In this conference ICFO-SPIE student chapter presented their latest results to fellow young scientists from across optics during the scientific sessions, discussed it, and got informed about other young scientist's cutting-edge research projects. Also chapter's activities are at the centre of a whole session at IONS, giving space to discussions about educational outreach activities and more with fellow student chapter members.

1) IONS-7 Galway (4, 5 and 6 March 2010)

The meeting was held at the National University of Ireland, Galway. 6 students from the chapter went to present their research by an oral presentation or a poster.

2) IONS-Moscow (From 21 to 25 June 2010)

The 8th European IONS conference was organized by students of Moscow State and Bauman State Technical Universities in Moscow. 4 students from the chapter also went there and presented orally their research.

Among these activities we organized, we requested the funding for

3.1 Weekly Seminars

3.2 El Día de la Luz

3.4 Open day of ICFO/Labtour

3.5 Coffee sessions

3.6 IONS conferences

*Note that the expenses for '3.3 Life Research Fair' were covered by organizers.

The funding was spent in the following manner:

3.1 Weekly seminars

\$250: Refreshments (chips, cookies, drinks)

3.2 El día de la Luz

\$300: Educational outreach activities for local high school, optics education kits and demonstration setups

3.3 Open day of ICFO/Labtour

\$250: Printing posters and brochures, refreshments

3.5 Coffee sessions

\$100: Refreshments with eminent scientists

3.6 IONS conferences
\$350 for attending IONS-7 Galway
\$650 for attending IONS-8 Moscow

Total expenses:
\$1900

4. Upcoming Events

1) September: International Food Day. Researchers cook together the local cousin of their respective home countries. This event connects the institute's researchers and also works as an advertisement/recruitment platform for the student chapter.

2) November: Week of science. This event is a set of sessions similar to the Day of Light but for younger people. During three days Catalan schools come to ICFO and we explain them our work in an ordinary day and show our labs with ongoing experiments.

3) From October onwards: Local Outreach Program.

5. Financial information.

Beginning balance
\$1425 Balance from previous year 2008-09
\$900 from SPIE outreach grant
\$900 from ICFO
Total \$3225

Expenses
\$1900 for activities as explained above.
\$300 for recruitment
Total \$2200

Ending balance
 $\$3225 - \$2200 = \$1025$