

## Post-conference report

16<sup>th</sup> International School on Quantum Electronics (16<sup>th</sup> ISQE)  
“Laser physics and applications”  
20-24 September 2010, Nessebar, Bulgaria  
<http://www.isqe2010.dir.bg>

The 16<sup>th</sup> issue of the International School on Quantum Electronics was traditionally organized by the Institute of Electronics, Bulgarian Academy of Sciences. It took place this year in hotel Marina Palace, Nessebar from 20 to 24 September 2010.

The first day of the ISQE began with welcoming speeches by the organizers and welcoming remarks were presented by the head of the scientific council of Institute of Electronics- Bulgarian Academy of Sciences Prof. P. Atanasov and OSA representative Prof. S. Mayor. At the ISQE - opening Prof. A. Serafetinidis from NTUA, Greece was awarded with an honorary diploma for his long year outstanding financial support of the school.

Lecturers from 21 leading laboratories have been invited to present the recent development in five scientific topics:

- Laser – matter interactions
- Laser spectroscopy and metrology
- Laser remote sensing and ecology
- Lasers in biology and medicine
- Laser systems and nonlinear optics

The lectures were structured to start brief overview in the domain for the very young participants and point out the recent achievements and results in the presented laboratory. The final program contained presentations of 17 invited speakers from 16 countries. The 16<sup>th</sup> ISQE has been visited by 84 regular participants and 10 accompanying persons from 23 countries. They have presented 81 poster contributions. The young participants (aged under 35) was given the opportunity to participate in the “Best young scientist poster presentation” competition. The competition meets 21 candidates from 8 countries. The International Advisory- and Program- Committees have elected a jury to evaluate the quality of the posters. The organizers were very pleased to give the jury the opportunity to distribute two sets of awards offered to the school by the Optical Society of America and by the SPIE. The awards were published on the school web-site along with the nomination criteria one year before the school opening. They were as follows:

OSA best poster award (600\$) - 1<sup>st</sup>/2<sup>nd</sup>/3<sup>rd</sup> place 250\$/200\$/150\$  
SPIE best poster award (500\$) - 1<sup>st</sup>/2<sup>nd</sup>/3<sup>rd</sup> place 250\$/150\$/100\$  
<http://www.isqe2010.dir.bg/Awards.htm>

The international jury awarded 7 instead of six posters due to the strong competition sharing the SPIE 3<sup>rd</sup> place between two candidates.

The names of the awarded students are:

**OSA awards:**

**1<sup>st</sup> place (250\$)**

Mr. Luca Marmugi

University of Pisa, INO-CNR, via di Pratale 28/a, 56127, Pisa , ITALY

NON-THERMAL STABILIZATION OF LARGE SODIUM VAPOUR DENSITIES,

A. Bogi, C. Marinelli, A. Burchianti, E. Mariotti, L. Moi,  
S. Gozzini, L. Marmugi, A. Lucchesini ...

**2<sup>nd</sup> place (200\$)**

Mr. Nikolay Dimitrov,

Sofia University "St. Kliment Ohridski", Department of Quantum Electronics, 5, J. Bourchier blvd., BG-1164 Sofia, BULGARIA

INTERFEROMETRIC AUTOCORRELATION OF ULTRASHORT PULSES WITH TILTED PULSE FRONTS,

N. Dimitrov, A. Dreischuh, G. Paulus

**3<sup>rd</sup> place (150\$)**

Mr. Boban Zarkov

Institute of Physics, Belgrade, SERBIA

A LASER SYSTEM FOR CONSTRUCTION DOT MATRIX HOLOGRAMS,

B. Zarkov, D. Pantelić ...

**SPIE award**

**1<sup>st</sup> place(200\$)**

Ms. Danjiela Miletic

Laboratoire Temps-Fréquence (LTF), Université de Neuchâtel, SWITZERLAND

SPECTROSCOPY OF MICRO-FABRICATED Cs VAPOURS CELLS FOR MINIATURE ATOMIC CLOCKS,

D. Miletic, C. Affolderbach and G. Mileti

**2<sup>nd</sup> place (150\$)**

Ms. Domna Kotsifaki

National Technical University of Athens, Zografou Campus, Athens, 15780 Greece

FIBER END SEALING CAP FOR Er:YAG LASER ABLATION,

D. Kotsifaki, A. Clark, A. Serafetinides, M. Makropoulou ...

**3<sup>rd</sup> place (shared) (75\$)**

Ms. Aneliya Dakova

Faculty of Physics, University of Plovdiv "Paisii Hilendarski" , 24 Tsar Asen Str., Plovdiv, BULGARIA

NONLINEAR REGIME OF PROPAGATION OF THREE-DIMENSIONAL OPTICAL PULSES WITH LARGE SPECTRAL BANDWIDTH,

D. Dakova, A. Dakova ...

**3<sup>rd</sup> place (shared) (75\$)**

Mr. Ahmad Khayat Jafari

Technical and Engineering Faculty of Bonab, End of Velayat Highway,  
Bonab 55517, IRAN

DIODE EDGE-PUMPED Yb:YAG DISK LASER,

A. Khayat Jafari, H. Aminpour, J. Rafiee, J. Sabbaghzadeh, and I. Mashayekhi Asl

On Friday, September 24, the awarded students were given the opportunity for 15 min. for oral presentation of their work in front of the school audience.

During the two poster-session days in parallel to the scientific presentations a scientific exhibition was organized. Five stands were arranged presenting the publicity materials and live demonstration of apparatus of leading companies in the domain of laser physics:

**Stand 1:** Thorlabs GmbH (Dr. Julien Vigroux)

**Stand 2:** Toptica Photonics AG (Dr. Jan Shaefer)

**Stand 3:** ASTEL Ltd. – official representative of Ocean Optics and Horiba (Jobyn Yvon)  
(Dr. Nikolay Georgiev)

**Stand 4:** Coherent Ltd. (Dr. Plamen Jankov)

**Stand 5:** Edinburgh Instruments Ltd.

The representatives of the scientific exhibition was given time for presentation of the company products application in the domain of the school topics.

The 16<sup>th</sup> ISQE was announced in the web-calendars of the cooperating and participating organizations.

The social program of the school included welcome cocktail on Monday 20, September, official dinner on Wednesday 22, September and excursion with guided tours in the ancient cities of Sozopol and Nessebar, the ancient Greek colonies Apollonia and Mesembria, on Thursday 23, September.