

ANNUAL REPORT

(May 2007-April 2008)



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Vice-President: Alexander Rubass optical-vortex@narod.ru
Secretary: Nataliya Shostka nataliya_shostka@mail.ru
Treasurer: Vyacheslav Mikhaylov svartanian@mail.ru

by: Yana Izdebskaya

CHAPTER ACTIVITIES:

1) 26 - 30 August 2007

Vyacheslav Mikhaylov took part in “SPIE Annual Meeting//Optics and Photonics 2007” conference in San Diego, California, USA due to SPIE financial support. He participated in the exhibition with the poster presentation on the activity of SPIE TNVU Student Chapter.

2) August 2007

We renewed our website and it has received the third prize-winning place.
<http://www.vortex.crimea.edu/spie/index.html>



3) October, 2007

Participation in conference “Laser Science and FiO” held in San Jose, CA, USA, October 16-20, 2007 (Yana Izdebskaya).

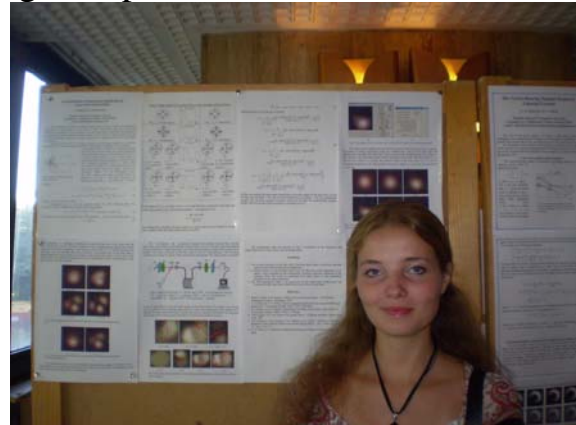


4) September 11 –14, 2007

SPIE members Alexander Rubass, Kirilo Kotlyarov, Olga Karakchieva, Vyacheslov Mikhaylov took part in the Eighth International conference “Correlation Optics 2007”, which will take place in Chernovtsi, Ukraine on September 11-14, 2007. We organized the workshop for students Taurida National V.Vernadsky University and Chernivci National University, undergraduate, graduate and PhD students in Ukraine, Russia, Belarus. We demonstrated two scientific movies: “Optical catastrophes” and “Vortices in nature and technology”. Also this program of the event was consisted of the invited lectures and tutorials given by the guest speakers.



Alexander Rubass and Kirilo Kotlyarov
(from left to right)



Olga Karakchieva



Vyacheslov Mikhaylov



4) December 11, 2007

In December, our student chapter organized “**Optics is the world of a number of surprising mysterious processes**” in an effort to teach kids aged 5 to 9 the basics of optics in a fun way. It is designed to inspire an interest in technology by bringing optics-related activities into after-school and other extracurricular science programs.

Optics is wonderful field of science and we showed kids highly interesting optical processes, such as a diffraction, a interference, a dispersion, an crystals optics, the science of liquid crystals (the liquid crystals provided by Prof. Steve Jacobs), optical vortices (this phenomenon looked like an atmospheric swirl - the tornado), a polarization, principles of geometric optics and others .



The purpose of this event was both academic and social. We showed kids very interesting experiments in order to interest them in optics and talked about useful baggage of knowledge and skills necessary to make a successful career in science too. We believe that the participation in the event is board their knowledge of modern aspects of optics and was greatly enhanced their employment potential.

The SPIE student members displayed the experiments, the information posters and distribution of materials highlighting Ukrainian and international educational resources available to the SPIE Student members.





5) April, 2007
The Meeting "Days of Science"

All SPIE TNVU students took part in this meeting with oral reports. The meeting sections: Phase singularities and caustics, their applications, Laser physics and applications, Nonlinear effects in active and passive optical devices and systems. Students of our Chapter, students of other departments of TNU, young scientists (k/b"Domain"), students of the Sevastopol National Technical University and students of other high schools and Institutes of Ukraine took part in our meeting. It was plenary oral report by prof. Volyar (chapter advisor) for students of University.

6) 2007-2008

The students of SPIE TNVU chapter participated in the following seminars:
October, 18th 2007
Subject: Generation of Singular Beams in Uniaxial Crystals
Speaker: Prof Alexander Volyar, Ukraine.

January, 17th 2007

Subject: Nonparaxial Beams Conversion: Optical Magnus Effect in a Free Space

Speaker: Dr. Vladlen Shvedov, Ukraine

March, 12th 2008

Subject: Envelope equation of guided vortex pulse in optical fibers

Speaker: Dr. Igor Dzedolik, Ukraine

April, 09th 2008

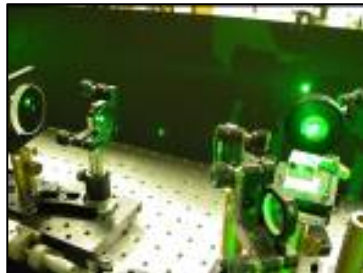
Subject: Interaction of the topological phase and the Magnus effect in a multimode fiber

Speaker: Dr. Svetlana Lapaeva, Ukraine

April, 23th 2008

Subject: Vortex soliton in parabolic optical fiber

Speaker: Dr. Igor Dzedolik, Ukraine



7) December, 2007

Free Book

Every year, SPIE makes certain books available to Student Chapters free of charge. These books are unused but unloved, and must be moved to make room for newer texts. A link to the list of these books is emailed to Chapter Officers so they can select books. This year we selected the books we wanted. Thank you, SPIE!

8) May 2007

Re-election of chapter officers:

President: Olga Karakchieva

Vice-President: Alexander Rubass

Secretary: Arseniy Sorokin

Treasurer: Kirilo Kotlyarov

List of current Student Chapter Members:

1. Pavel Anishenko
2. Mariem Bekirova
3. Yana Izdebskaya
4. Olga Karakchiyeva
5. Kirilo Kotlyarov
6. Anna Kovaleva
7. Viacheslav Mikhailov
8. Bogdan Sokolenko
9. Arseniy Sorokin
10. Elizoveta Volobueva

9) Financial information:

1. SPIE provides funding to our Student Chapter in 2007.

Beginning balance on 2007 - \$30;

In 2007 we got Activity grant (\$500) for the organization of “Optics is the world of a number of surprising mysterious processes” which was place in Simferopol, Ukraine, on December 11, 2007.

- \$105– for a print of colour information posters and announcements prior the event;
- \$300 – for a preparation of the demonstrational materials for the experiments (some different diffraction gratings, some laser points, some fibers, some lenses, etc);
- \$20 – a print the descriptions to the experiments for each student;
- \$75 – the presents for kids (CDs with scientific movies, homemade coledoscopes, fiber models).

2. Others SPIE funding to our Students in 2007.

We have received the third prize-winning place for our website (\$200).

- \$100 - We arranged pizza-party for all SPIE students.

Ending balance - \$130.

10) Details of planned activities for the future:

- 1) May 13-14, 2008

Visit of Prof. Mauro Pereira to our SPIE Student Chapter in Simferopol (13-14 May 2007)

Lecture Title: Advanced Simulation of Quantum Cascade Lasers and Light-Intersubband Excitation Coupling in Microcavities: Polaritons vs Antipolaritons.

2) September 15-20, 2008

We'll organize the International Conference "Singular Optics'08" in 15-20 September 2008 which will take place in Crimea, Ukraine and organize the Young Researchers Workshop. The purpose of the conference and the workshop is: it will not only help the students from Ukraine and other countries to get to know each other, but also will provide them with a useful baggage of knowledge and skills necessary to make a successful career in science. Being run directly before the SO'08, our Workshop will help young conference participants to fully integrate themselves into the main event.

3) For 2008 year

The participation of SPIE TNVU student members in international conferences, such as "Optics and Photonics", "4th International conference on advanced optoelectronics and lasers, CAOL'2008", "Laser Science and FiO" and many others.