

TAURIDA NATIONAL V.VERNADSKY UNIVERSITY SPIE STUDENT CHAPTER REPORT (December, 2006 - June, 2007)

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CHAPTER ACTIVITIES:

1) February 9-14, 2007

Taurida National V.Vernadsky University SPIE Student Chapter Welcomes Prof. Grover Swartzlander

Our chapter was able to kick off the beginning of 2007 with a talk by Prof. Grover Swartzlander from the College of Optical Sciences at the University of Arizona. Roughly 75 people attended this talk where he described a novel singular optics technique to detect earth-like extrasolar planets. This device, called an optical vortex coronagraph, uses a helical shaped vortex lens to eliminate starlight without affecting light from the planet. This unusual optical phenomenon might allow astronomers to view extrasolar planets directly without the annoying glare of the parent star. Both undergraduate and graduate students benefited by learning about the importance of modern optics in both pure and applied science. What is more, everyone enjoyed learning how techniques in singular optics could help reveal whether life exists outside our solar system. Latter Prof. Swartzlander met with members of the SPIE student chapter to discuss career options in optics, the importance of good writing skills, and graduate school opportunities. Such highly valued interactions can have a profound and long lasting impact on the mindset of the students. And for the students considering optics as a career, such opportunities can make all the difference in the world.

We were honored to have Prof. Swartzlander as our guest and also hope to continue productive relationship with him in the nearest future.



Prof. Grover Swartzlander with the SPIE Students



The talk by prof. Grover Swartzlander.



SPIE students with prof. Grover Swartzlander in our laboratories.



The discussion of prof. Grover Swartzlander with our students.



Prof. Grover Swartzlander in the Crimea.

2) April 23 – 26, 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.

3) March, 2007

The students of SPIE TNVU chapter participated in the following seminars:

January, 23th

Subject: "Propagation of optical vortices in optical fibers with Kerr nonlinearity"

Speaker: Dr. Alexander Volyar, Ukraine.

March, 12th

Subject: "The analysis of the vertical and mode structure after the fiber"

Speaker: Dr. Vladlen Shvedov, Ukraine

March, 31th

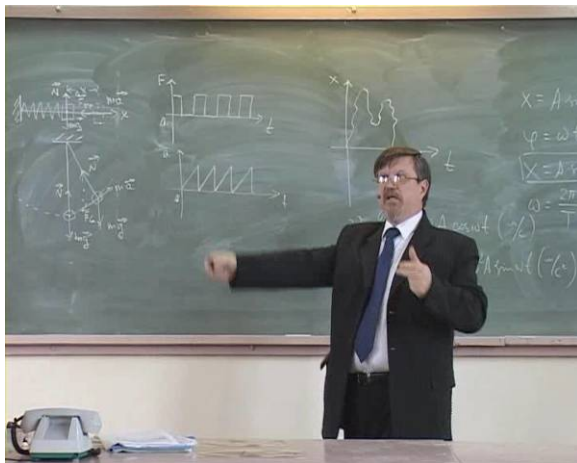
Subject: "Fast electrically switchable holographic mirror"

Speaker: Dr. Igor Dzedolik, Ukraine

April, 27th

Subject: "Evolution of the vortex core and the polarization state of the singular beams in crystals"

Speaker: Dr. Alexander Bykov, Ukraine



4) Yana Izdebskaya has gotten SPIE Educational Scholarship in Optical Science and Engineering for educational expenses.

5) The SPIE Officer Travel Grant was obtained by Vyacheslav Mikhaylov in order to attend the 52-th SPIE Annual Meeting on August 2007, San Diego, CA,USA.

Details of planned activities for the future:

1) August 25-31, 2007

Vyacheslav Mikhaylov will take part in “Optics and Photonics 2007” conference in San Diego, California, USA due to SPIE Officer Travel Grant. He will participate in the exhibition with the poster presentation on the activity of SPIE TNVU Student Chapter.

2) September 11-14, 2007

We’d like to organize the Young Researchers Workshop. It will be held as a part of the Eighth International Conference “Correlation Optics” (CO’07), which will take place in Chernivtsi, Ukraine on September 11-14, 2007. The purpose of this Workshop is both academic and social: 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 CO’07, our Workshop will help young conference participants to fully integrate themselves into the main event.

3) September 11-14, 2007

Our SPIE students (Rubass Alexander, Kotlyarov Kirilo) will take part in the the Eighth International Conference “Correlation Optics” (CO’07) (Chernivtsi, Ukraine).

4) September, 2007

Yana Izdebskaya with oral report will take part in the conference “Laser Science and FiO’2007” which will take place in San Jose, California, USA.

5) November, 2007

We’d like to organize the Olympiad "Computer modeling-2007" on March, 2008, Crimea, Ukraine.

6) September, 2008

We’ll organize the International Conference “Singular Optics’08” with Annual Young Student’s Workshop in September 2008 with will take place in Crimea, Ukraine.

Financial information:

1. SPIE provides funding to our Student Chapter in 2006.

In 2006 we got Activity grant (700 dollars) for the organization 6th Young Scientist Conference “Singular and Nonlinear Optics” which was place in Simferopol, Ukraine, on 17-22 April, 2006.

- Beginning balance on 2007 - \$150 (it is remain after the conference);
- \$120 we will spend on visit Prof. Grover Swartzlander (the trip to Black sea in Crimea. The University of Arizona covered Prof. Swartzlander’s travel expenses. Our University covered his loading expenses in the hotel);
- Ending balance - \$30.

2. Others SPIE funding to our Students in 2007.

- Yana Izdebskaya has gotten SPIE Educational Scholarship in Optical Science and Engineering for educational expenses;
- Vyacheslav Mikhaylov has gotten the SPIE Officer Travel Grant in order to attend the 52-th SPIE Annual Meeting on August 2007, San Diego, USA.

We’ll request activity grant in 2007 for the organization of the Young Researchers Workshop. It will be held as a part of the Eighth International Conference “Correlation Optics” (CO’07), which will take place in Chernivtsi, Ukraine on September 11-14, 2007.