

## **Workshop: Modern Optics XIX**

**Lectures on Optics for  
University Students,  
Postgraduate Students and  
High School Students**

### **Chair**

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**The main goal** of the Workshop is promotion of school and high school youth achievements in optics - a thriving direction in physics.

One of the leading scientific schools of optics in Russia, which is a recognized authority in other countries formed in Saratov to date. Conferences, seminars and scientific schools are one of the effective ways to attract talented young people to scientific work, particularly in the area of optical research. Widening the circle of young people, the inclusion of students in high schools and colleges, including the physical, technical and other natural sciences field are one of the main tasks of scientific-methodical workshop on "Modern Optics".

### **Organized in cooperation with**

Saratov Physics and Technical Lyceum  
Lyceums No. 2, 4 and 15  
Secondary schools No. 45, 51, 54, 67  
and 77  
Gymnasium No. 5

Ministry of Education of the Saratov Region

### **Workshop program**

The program of the seminar "Modern Optics" consists of poster session "Science incubator for school children and students on Photonics", lectures and demonstration parts and seminars on selected topics. One lecture day with thematic sections supposed to hold the afternoon. Section sessions supposed to hold for 3-4 favorites, the most interesting topics for teachers, which posts students and pupils on the results of independent work is supposed to hear and discuss also.

- optical training
- Methodology of teaching optics in the general course of physics at a natural-science department
- Principles of optical mathematical simulation

Teaching optics in the light of the interdisciplinary education and scientific knowledge integration:

- Problems of teaching optics at medical colleges and universities
- Optical physics in the course "The modern natural scientific conception" at humanitarian departments