

Workshop: History, Methodology and Philosophy of the Optical Education XIII

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The goals of the Workshop are the development of the optical education, the actualization of the interdisciplinary investigation using optical conceptions and tools, the expansion of European educational field of optical physics and biophysics and the increase of creative resources and potential of bachelor, master's degree, post-graduate training in Optics and Biophotonics.

Topics

There are three main discussing topics.

History of discoveries in optics:

- Founders of optical physics
- History of optical scientific schools
- Optical discoveries on chronicles of the world culture
- Historical aspects of optical investigations for life science

Methodology problems of the optical education:

- Lecture demonstrations of optics
- University 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
- Minimum program of biology, biophysics, biochemistry, and biomedicine for student specialized in optics