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**Title of the lecture: Theoretical studies of the dynamics of two section blue-violet semiconductor lasers**

**Abstract**

We report results on the numerical investigations of the dynamical behavior of two section lasers. We find that the system displays, under certain conditions, sub-10-ps pulses. We sort out that the optimized structure for short pulses is obtained for lasers emitting at 400 nm. Finally, we discuss the impact of laser parameters on the features of output pulses.

**Biography**

Vasile Tronciu received the degree in physics from Moldova State University, Chisinau, Moldova, in 1990, and the Ph.D. and Dr.hab. degrees in physical and mathematical sciences from the Institute of Applied Physics, Academy of Science of Moldova, in 1995 and 2013, respectively. He is currently the head of the Department of Physics at the Technical University of Moldova.