

*Oddělení diodově čerpaných laserů, sekce výkonových systémů,  
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# **Design and manufacturing of volume Bragg diffraction gratings in a phototermorefractive (PTR) glass for the pulse stretching and compression**

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Dr. Vadim Smirnov is a researcher of the Optigate company which develops a unique technology of diffraction gratings and optical filters manufacturing. The BragGrate™ technology of high-efficiency volume Bragg gratings (VBG's) was developed at the Center for Research and Education in Optics and Lasers (CREOL) at the University of Central Florida. It is based on a permanent refractive index change in a special multi-component silicate glass after exposure to UV radiation followed by a thermal development. The BragGlass™ enables fabrication of phase volume diffractive gratings with absolute diffraction efficiency exceeding 99%, thermal stability of 400°C, and laser damage threshold of 40 J/cm<sup>2</sup> for 8 ns pulses.

***který se bude konat dne 18.4.2013 od 13:30  
v přednáškové místnosti „akvárium“ v 1. patře  
Ústavu Informatiky AV ČR, v.v.i.***