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Laserové centrum HiLASE Vás srdečně zve na seminář

High Power Laser Technology and Laser-Plasma EUV Source for Mass Production of Next-Generation Semiconductor Lithography

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Since the rapid development of high peak and average power laser technology since the 1990s, all kinds of laser-plasma experiments have been studied in the past 25 years to generate different kinds of novel light or particle sources on tabletop for many potential applications in science and industry. High power 13.5-nm EUV source irradiated from tin plasmas of droplet target driven by high power CO_2 laser system is successfully implemented for the next-generation semiconductor lithography tool. The question now is gradually not how but when the cost-effective mass production can be achieved. For the first time, laser-plasma interaction can be applied in large-scale industry.

First, I will briefly introduce myself and also my research achievement in high power laser technologies and laser-plasma interactions since 2004. Second, I will introduce the current status of EUV lithography tool developed by ASML for almost 30 years and the current progress of mass production at TSMC since 2011. Finally, some future challenges will be discussed, which is looking for the solution from research and engineering.

který se bude konat ve čtvrtek 15.9. 2016 od 10:00

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