

FRAUNHOFER INSTITUTE FOR LASERTECHNOLOGY ILT

# PRESS RELEASE

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# 8<sup>th</sup> "UKP Workshop – Ultrafast Laser Technology": New Possibilities through Individual Beam Shaping

The now firmly established "UKP Workshop" brings together leading experts in ultrashort pulse laser technology every two years. On April 8 and 9, 2025, the 8th UKP Workshop will take place in Aachen, where specialists will present the latest developments in the field of ultrashort pulse laser technology. Around 20 international speakers will give presentations on practical applications and processes with USP lasers. This time, the focus will be on innovative beam shaping solutions specially optimized for different processes. These solutions open up new possibilities for laser-assisted processing in industries such as electronics, energy storage, glass processing and microelectronics.

The UKP Workshop, hosted by the Fraunhofer Institute for Laser Technology ILT, will provide a comprehensive overview of current advances in beam sources and necessary system technology. A particular focus will be on customized solutions that enable significant improvements in areas such as process speed, precision and automation. The workshop will also provide insights into future-oriented technologies for scaling up USP processes and show new potential applications that extend and exceed the previous limits of USP technology.

Traditionally, users from sectors such as automotive, machine tools, the consumer goods industry and electronics meet at the UKP Workshop. For them, this technology is particularly attractive as it is not only extremely precise, down to the sub-micrometer range, but also quite independent of material properties. New methods for parallelization allow users to manufacture continuously with high throughput, for example, when processing semiconductor materials or structuring battery electrodes. Large structured surfaces will also play a key role in the practical topic of hydrogen.

## Exchange and exhibition: networking with international experts

The high-caliber speakers will give presentations on the latest findings and trends in USP technology. The workshop is an excellent opportunity to learn first-hand about the latest developments in ultrashort pulse laser technology and to make valuable contacts in the USP community.

The UKP Workshop in Aachen gives participants the opportunity to exchange ideas and solutions with international experts from research and industry. The same applies to the



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accompanying exhibition, where both well-known companies and start-ups will present their latest technologies and system developments and discuss concrete solutions for specific challenges in direct talks.

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The program of the 8<sup>th</sup> UKP Workshop includes numerous presentations in English. Registration is now open. Interested parties can take advantage of the early bird discount until January 15, 2025.



Image 1: As in 2023, the UKP Workshop 2025 will once again take place at DAS LIEBIG in Aachen. © Fraunhofer ILT, Aachen, Germany.

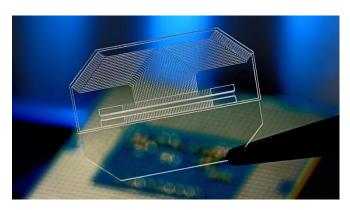


Image 2: Ion trap for quantum computing processed with the USP laser. © Fraunhofer ILT, Aachen, Germany.



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