

**PRESS RELEASE**

**Prof. Andrés Lasagni honored as one of the most innovative personalities in photonics**

**Lasagni, co-founder of the Saarbrücken-based company SurFunction GmbH, has been included in the prestigious 2025 Photonics100 list. This award recognizes the most influential and innovative personalities in the field of optics and photonics.**

Saarbrücken, October 31<sup>st</sup>, 2024 - SurFunction GmbH, a leading deep-tech company for surface enhancement based on laser interference, proudly announces the inclusion of Prof. Andrés Lasagni in the prestigious Photonics100 list of 2025. Prof. Lasagni, co-inventor of DLIP technology, co-founder of SurFunction, Professor for Laser-Based Manufacturing at TU Dresden and Head of the Center for Advanced Micro-Photonics (CAMP) at the Fraunhofer Institute for Material and Beam Technology IWS, was honored for his exceptional contribution to photonics.

Photonics builds on optics, which studies the behavior and properties of light, and makes its findings usable for numerous practical applications - from laser technologies to medical diagnostics. For several years, Europa Science (*Electro Optics* magazine) has published the Photonics100, an exclusive list of the most influential international personalities.

Prof. Lasagni owes his award to his outstanding pioneering work in optical micromaterial processing, especially in the field of laser interference patterning (DLIP). With over 30 patents and more than 300 scientific publications, he has made significant advances in the field and created industrial innovations that impressively demonstrate the potential of laser technology.



Prof. Lasagni also played a key role in the industrialization of the DLIP process. He wrote his dissertation on the technology in 2004 and developed the first compact optics in the "DLIP" category in 2014. These groundbreaking achievements laid the foundation for the founding of SurFunction, which today, with its patented technology platform ELIPSYS<sup>®</sup>, is considered a pioneer in the field of laser-based surface programming modeled by nature.

"It is a great honor to be included in the ranks of the world's leading figures in photonics," says Prof. Lasagni. "This award is a testament to the hard work and dedication of my team over the past few years. Together we have made groundbreaking advances in laser technology that have opened up new possibilities for industrial applications. I look forward to continuing to work with partners from academia and industry to further advance photonics."



### **Further Information:**

[The Photonics 100 2025 has been announced! Who has made it? | Electro Optics](#)  
[Andrés Fabián Lasagni | Electro Optics](#)  
[Technische Universität Dresden | Fakultät Maschinenwesen](#)

### **About SurFunction:**

SurFunction GmbH, headquartered in Saarbrücken, Germany, is a leading system provider for non-contact surface modification. The company uses award-winning and patented laser-based processes to create cost-effective and sustainable surface structures in record time. These structures are based on models from nature and offer new properties such as friction reduction, anti-adhesion, antibacterial effect, energy efficiency and more. SurFunction supports its customers with complete system solutions and highly functional interfaces to improve products and processes and contribute to resource conservation.

### **Upcoming trade fairs:**

- Medica, 11th to 14th of November 2024 (Düsseldorf, H7A / B05)
- electronica, 12th to 15th of November 2024 (Munich, B2.471)

### **If you have any questions or would like to receive images, please contact:**

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## **The background of DLIP and ELIPSYS®:**

Decades of research have shown that surface structures play a decisive role in the performance of almost all technical components. Nature itself offers fascinating examples of the efficiency of surface structures: the non-stick properties of the lotus plant or the iridescent color effects on butterfly wings are only possible through complex micro- and nanostructures. However, replicating these natural phenomena on an industrial scale has been challenging due to a lack of technology that would enable economical production on an industrial scale.

The solution to this challenge has been made possible by groundbreaking research over the past few decades and the invention of "Direct Laser Interference Patterning" (DLIP). This technology has laid the foundation for revolutionizing the way we manipulate surfaces at the microscopic level. It uses the principle of interference, which is analogous to the interaction of colliding water waves. This analogy can be applied to light rays that are split and then superimposed in such a way that they interfere with the surface of the material. The result is precise, fine structures previously only found in nature.

The consistent further development of DLIP technology by SurFunction GmbH has now opened the door to industrial applications. For example, ELIPSYS® (Extended Laser Interference Patterning System), the latest generation of DLIP technology, enables the extremely fast and cost-effective generation of complex surface structures that improve the properties of a wide range of products (e.g. non-stick, antibacterial, energy-efficient, low-friction, electrically highly conductive or forgery-proof). DLIP and ELIPSYS® mark a turning point in the production and functionalization of material surfaces for a wide range of industries.