

# This Week in PHOTONICS



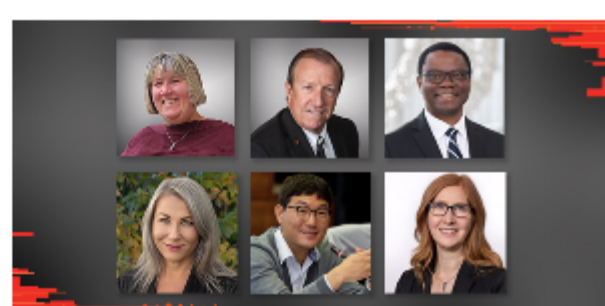
**Shortwave Infra, Broadband Spectrum Solution Provider**  
State-of-the-Art of Customized Service and Simulation

## Top Stories

### SPIE Elects Rochester's Julie Bentley into Presidential Chain

University of Rochester professor Julie Bentley has been elected to serve as the 2024 vice president of SPIE. With her election, Bentley joins the SPIE presidential chain and will serve as president-elect in 2025 and as the society's president in 2026.

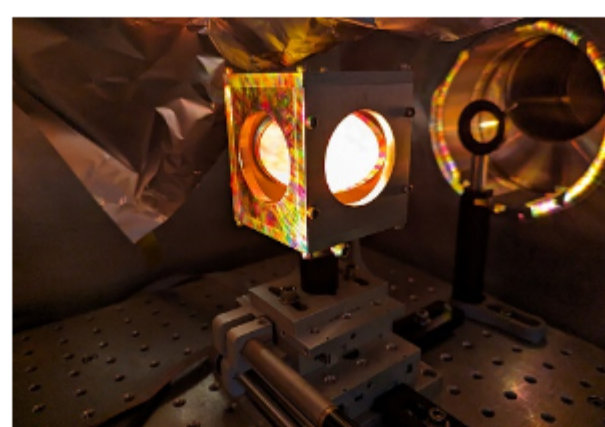
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### TAU Systems Upgrades University of Texas Tabletop Laser to 40 TW

TAU Systems has upgraded the existing University of Texas Tabletop Terawatt Laser (UT3) to facilitate the powering of a compact particle accelerator. The upgraded UT3 driver laser now produces ultrashort pulses with a peak power of 40 TW. The upgrade is part of a collaboration between TAU and the University of Texas to jointly develop the fundamental elements of laser-plasma interactions and advance the science and technology of compact accelerator systems and advanced light sources

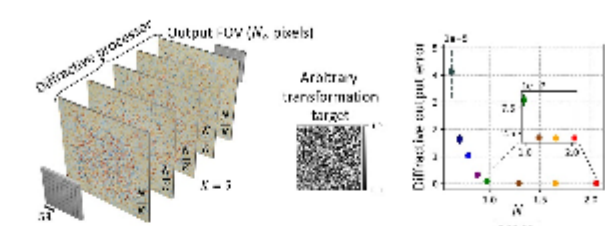
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### Optical Processor Captures Scenes in Spatially Incoherent Light

UCLA researchers developed a deep-learning-based approach to designing spatially incoherent, diffractive optical processors. The method provides a way to build all-optical visual processors that work under natural light. Following deep learning, the diffractive optical processors can transform any input light intensity pattern into the correct output pattern. The researchers believe that their design will contribute to the quest for a fast, energy-efficient alternative to electronic computing.

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## Featured Products & Services



### Optical Filters for Sensing and Imaging

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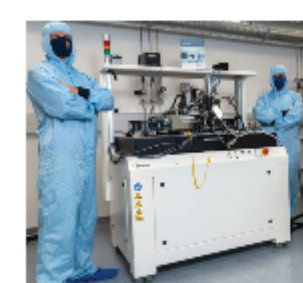
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## Upcoming Webinars

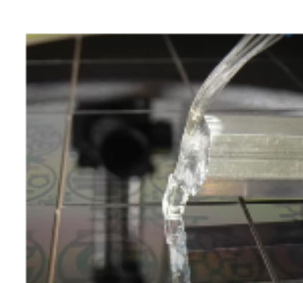


### Advanced Packaging for Integrated Photonics: From Research to Manufacturing

Tue, Aug 29, 2023 10:00 AM - 11:00 AM EDT

Advanced packaging enables researchers to combine different technology platforms such as photonics, electronics, micro-electromechanical, and fluidics to address a vast array of exciting applications. Professor Peter O'Brien presents the packaging capabilities established by his research team at the Tyndall Institute, including details about the group's diverse range of research projects in areas such as telecommunications, quantum, and medical devices. The webinar outlines how these advanced packaging processes can be transferred to early-stage manufacturing through the group's leadership of the European Pilot Line, and discusses recent developments by the group to establish the European Photonics Academy to train industry and students in a wide range of advanced photonics. Sponsored by Aerotech and PI (Physik Instrument) LP.

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### Precision Automation Principles for the Optimal Testing and Packaging of PIC Devices

Thu, Sep 21, 2023 1:00 PM - 2:00 PM EDT

Production-scale testing of silicon photonic devices continues to be a challenge due to the multi-degree-of-freedom, high-precision, optical alignments required for wafer- and die-level testing. Wide variances in chip designs and coupling features complicate test procedures, making it difficult to identify a system capable of producing repeatable measurements across various topologies. Brett Heintz of Aerotech Inc. provides a guide for selecting precision motion equipment to minimize the impact of positioning errors on optical alignment test results. Presented by Aerotech.

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