

This Week in PHOTONICS

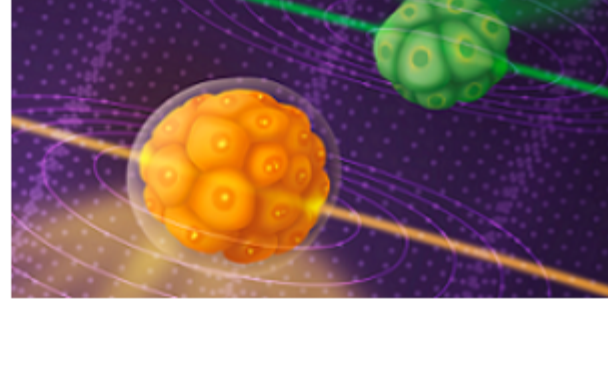


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Top Stories

Century-Old Effect Applied for Study of Embryonic Development

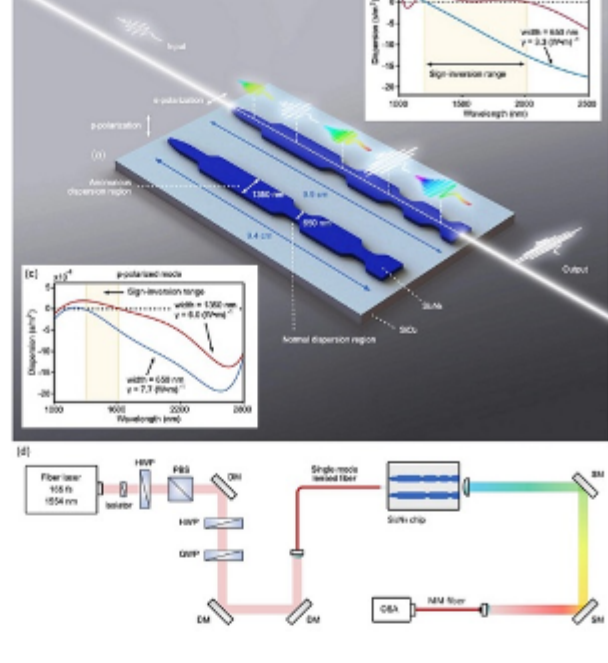
Researchers have applied line-scanning Brillouin microscopy (LSBM), a microscopy technique based on Brillouin scattering, to visualize the mechanical properties of living cells over space and time, and to provide fast 3D imaging with low phototoxicity. Researchers at the European Molecular Biology Laboratory developed the approach, and used it to noninvasively track the mechanical properties of developing embryos at high speed and resolution.



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On-Chip Supercontinuum Laser Holds Promise in Portability

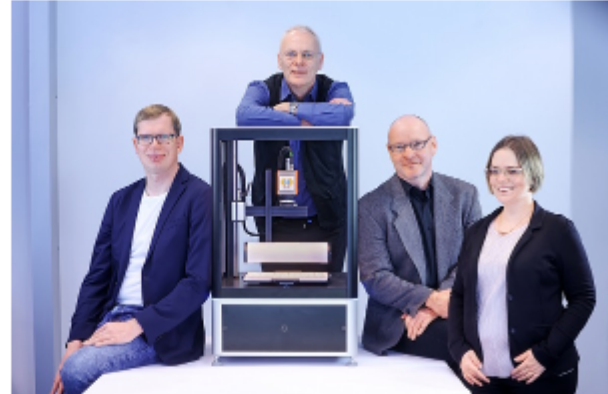
An ultra-efficient on-chip supercontinuum laser developed by researchers at the University of Twente is poised to enable applications ranging from portable medical imaging devices to chemical sensing and lidar. The researchers' design enabled control over the dispersion of light in the laser system by alternately widening and narrowing the beam of light.



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Fraunhofer Spinoff's Hyperspectral Tech to Aid Chip Production

Researchers from the Fraunhofer Institute for Material and Beam Technology IWS (Fraunhofer IWS) have established a spinoff company to commercialize a measuring system developed at the institute. The scientists formed DIVE imaging systems GmbH to roll out a high-performance, highly flexible inspection system that features integrated hyperspectral sensor technology, artificial intelligence, and special illumination techniques.



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Featured Products & Services



The New Fast M200HD (High Definition)

Telops Inc.

The FAST M200HD brings in high acquisition rate (180 Hz) at Megapixel image resolution. It is a great camera to capture targets that require image resolution during high-speed experiments such as in experimental mechanics, NDT, and image signature.

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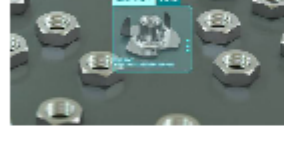
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How to Detect Anomalies with Intelligent Industrial Cameras

IDS Imaging Development Systems GmbH

How can a camera be taught to reliably detect deviations from the norm if they are not or not completely predictable? Rule-based image processing would have to capitulate – with the AI system IDS NXT, on the other hand, such a challenge can be easily solved from now on.

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Upcoming Webinars



Machine Vision with Collaborative Robots

Wed, Apr 12, 2023 1:00 PM - 2:00 PM EDT

Guiding a robot with 2D or 3D vision increases flexibility and reduces cost in many different industrial robot applications. As collaborative robots, or cobots, gain popularity, they bring new possibilities to incorporate machine vision in the work cell. Josh Person of FANUC America Corp. focuses on how machine vision and collaborative robots work together for a wide range of applications. Cobots support unique solutions for real-world problems. Adding vision to a cobot provides yet another tool to help customers improve production processes, gain efficiencies, reduce floor space requirements, and stay competitive. Sponsored by Metaphase Technologies and Hamamatsu Corporation.

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Optical Vortices and Their Interactions

Tue, Apr 25, 2023 10:00 AM - 11:00 AM EDT

David Andrews, Ph.D., of the University of East Anglia provides a broad introduction to optical vortices, concisely explaining the key experimental methods and theory. He also shares the principles that determine the unusual features of optical vortex interactions with matter. At the quantum level, simple symmetry principles explain a range of novel effects, while in the broader fields of singular optics and structured light, topology is more relevant. Some of the latest studies reveal especially striking phenomena at the focal point of vortex beams. Despite optical vortices' simple basis, the field is one in which wave optics, quantum theory, and symmetry can all reveal their distinctive effects in straightforward experiments.

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All Things Photonics

With its goal to cultivate and foster photonics-driven progress in the Netherlands, PhotonDelta today is a burgeoning cross-border ecosystem of photonic chip technology organizations. Around the central technology area of integrated photonics, the ecosystem's current aim is to leverage decades of expertise and dozens of strategic partnerships to create a production capacity of 100,000+ wafer per year by 2030. PhotonDelta CEO **Ewit Roos** discusses the mission and vision of the organization amid the heightened global attention that has been placed on core photonic technologies and applications.

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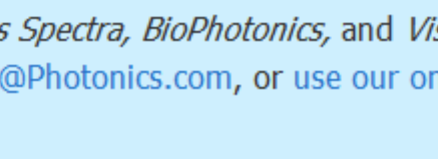
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