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Top Stories

Researchers Improve Quantum Memory Capacity Using Multiplexing

Researchers have built a quantum memory-enabled source of spatially structured nonclassical light, based on the principle of wavevector multiplexing. The high-capacity memory using laser-cooled atoms can store up to 665 quantum states of light simultaneously. According to researchers, their system has a larger capacity than any other existing quantum memory.

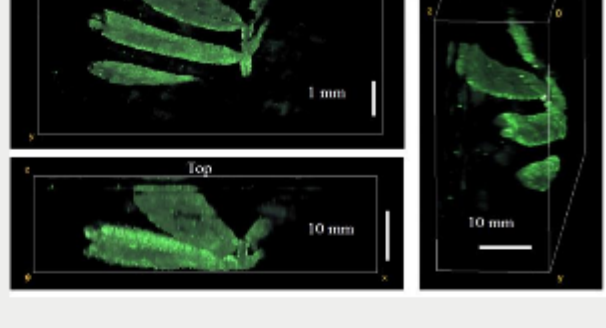


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Lensless Camera Creates Detailed 3D Images Without Scanning

A new camera, called DiffuserCam, produces 3D images from a single 2D image without using any lenses. The camera consists only of a diffuser placed a few millimeters in front of an image sensor. The proposed architecture and algorithm for the camera could enable high-resolution, light-efficient lensless 3D imaging of large and dynamic 3D samples in an extremely compact package.

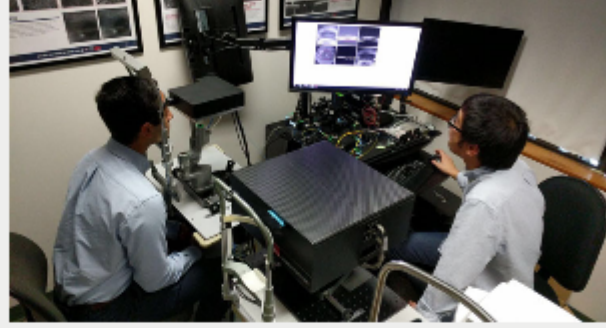


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Laser Scanner Could Help Diagnose Disease Before Vision Loss Occurs

A retinal imaging scanner has been developed that can produce high-resolution, 3D cross-sectional images of the retina, including individual photoreceptors and fine capillaries. The scanner is extremely compact (about the size of a shoebox), making it suitable for everyday use in medical clinics and hospitals.



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Featured Products

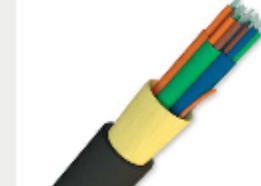


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ultrafast laser needs. The X-series product family is specifically developed for multiphoton bio-imaging and metrology applications, where space and simplicity matter.

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New Micro-Tactical Cable

AFL
AFL's new Micro-Tactical Fiber Optic Cable combines the ruggedness of military tactical cable designs with the ultra-high fiber density of AFL's micro-cable technology. Designed for rapid deployment in optical networks requiring high mechanical performance specifications, extreme environmental exposure, and highly dynamic operating conditions.

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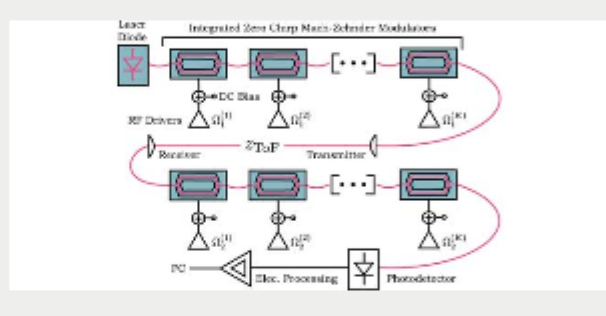
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More News

Researchers Improve ToF Resolution 1000-Fold Using Computational Approach

In a novel approach to time-of-flight (ToF) imaging, researchers correlated the principle of heterodyning to ToF, increasing depth resolution 1000-fold. Higher ToF resolution could enable accurate distance measurements through fog, removing a major obstacle to the development of self-driving cars.

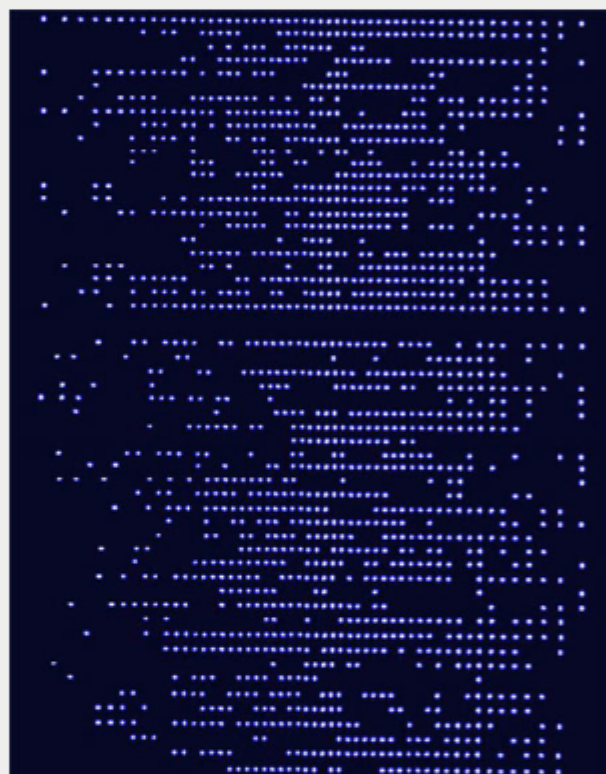


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53-Qubit Quantum Simulator Observes Quantum Magnetism in Action

Two independent teams of scientists have used more than 50 interacting atomic quantum bits (qubits) to mimic magnetic quantum matter, setting what they believe to be a new record for quantum simulation. In recent years, scientists have controlled 10 to 20 atomic qubits in small-scale quantum simulations.



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Industry Events

PITTCON 2018

February 26 - March 1, 2018 - Orange County Convention Center - West - Orlando United States

PITTCON will cover analytical chemistry and spectroscopy and will highlight scientific developments made in the fields of food safety, the environmental sciences, bioterrorism and the pharmaceutical industry. The 2018 conference will offer more than 2,000 scientific and educational sessions, including short courses, plenary sessions, abstract sessions and technical sessions. The exposition will showcase the latest products, services and equipment for professional excellence in the laboratory sciences.



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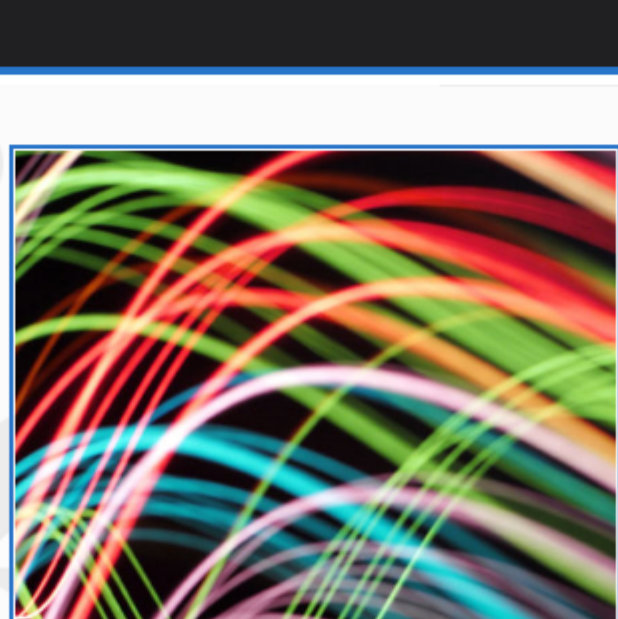
Webinars

PBM 101: Photobiomodulation Basics

Tue, Jan 9, 2018 1:00 PM - 2:00 PM EST

This webinar will provide a brief history of the use of light and color to diagnose and treat disease; review the science behind photobiomodulation (PBM); and present examples of "real world" applications where this emerging technology is being successfully used. Presenter Robert S. Dotson, M.D., FAAO (board-certified, Ophthalmology) has been actively involved in researching and developing PBM technology for applications within ophthalmology for over 15 years. He is the founder of two companies focused on developing PBM applications, Photospectra and LumiThera.

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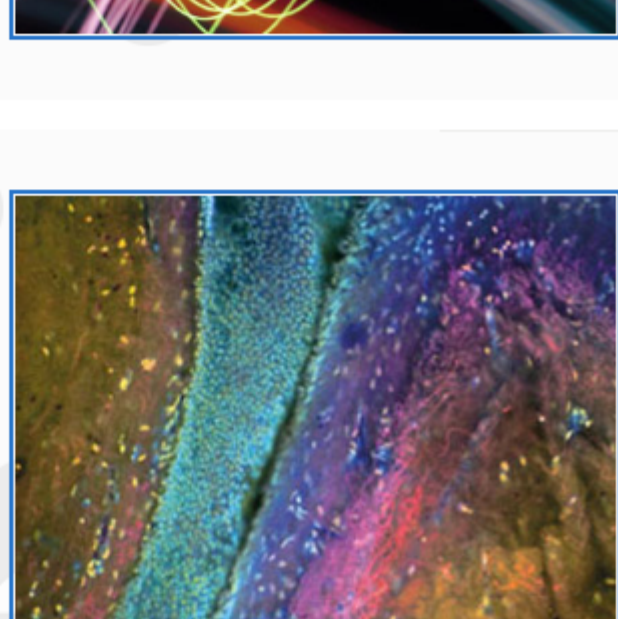


The MUSE Microscope for Advancing Light Microscopy

Tue, Jan 16, 2018 1:00 PM - 2:00 PM EST

This webinar will introduce microscopy with UV surface excitation (MUSE), a novel fluorescence-based, slide-free optical imaging system that provides high-resolution images in minutes without causing damage to fragile tissue samples. Presenter Richard Levenson, M.D., FCAP, will discuss the development of the MUSE microscope and demonstrate its use.

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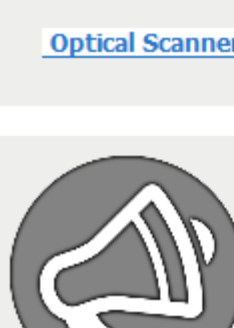
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