

BioPhotonics

Bringing Light to the Life Sciences®

WEBINARS

Join us for a **FREE Webinar**

Quantum Sensing with Atomic Systems and Reconfigurable Instrumentation

Wednesday, July 23, 2025 1:00 PM - 2:00 PM EDT

Register Now

Presented by



Quantum sensing leverages the fundamental quantum behavior of atoms and light to measure weak signals with precision beyond that of classical methods. These measurements make use of trapped ions and cold atoms, and include applications such as magnetic field sensing, optical atomic clocks, and quantum gravimetry. Critical to these techniques are ultra-cold temperatures, coherent quantum control, and sensitive optical readout, which pose significant hardware challenges with regard to laser stabilization, timing, and noise suppression. During this presentation, find out how to generate and detect synchronized RF pulse trains, such as a Ramsey sequence, using a software-defined waveform generator and lock-in amplifier. Plus, see new ways to stabilize your systems with a laser lock box and measure clock stability with a phasemeter, using a reconfigurable suite of instruments in a single device. Finally, in a live demonstration, learn how to deploy these instruments simultaneously for maximum flexibility, and how to use Python to interface with each. Presented by [Liquid Instruments](#).



Upcoming Webinars

- [Photonics Systems for Human Health Care and Biomedical Research](#), 7/22/2025 1:00:00 PM EDT

Archived Webinars

- [Autonomous Multiscale Tissue Imaging](#)
- [The Evolution of Microscopy – Current Landscape and Considerations](#)
- [Practical Aberration Correction Using Freeform Optics — Pushing the Boundaries of Laser System Performance](#)

Don't miss out!

[Sign up for our Webinar Alerts email today and never miss an upcoming event.](#)

We respect your time and privacy. You are receiving this email because you are a Photonics Spectra magazine subscriber. You may use the links below to manage your subscriptions or contact us.

Questions: info@photonics.com

[Unsubscribe](#) | [Subscribe](#) | [Subscriptions](#) | [Privacy Policy](#) | [Terms and Conditions of Use](#)

Photonics Media, 100 West St., PO Box 4949, Pittsfield, MA 01202-4949
© 1996 - 2025 Laurin Publishing. All rights reserved. Photonics.com is Registered with the U.S. Patent & Trademark Office.
Reproduction in whole or in part without permission is prohibited.