

Driving new discoveries with Lattice Lightsheet 7

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Abstract

Light sheet fluorescence microscopy has become an established method for fast and unsurpassed gentle imaging of living specimens. By adding lattice structures to the light sheet, ZEISS Lattice Lightsheet 7 makes this technique available for live cell imaging at subcellular resolution. The lattice light-sheet can be adapted to each experiment enabling visualization of previously unobserved events in the most challenging of samples.

In this workshop, experienced lattice light-sheet users will present their work and how this unique technology enables them to progress their research. As early adaptors of a pre-serial version of Lattice Lightsheet 7, the presenters will demonstrate unique results with Expansion Microscopy experiments as well as single-molecule motor-PAINT experiments, used to reveal the orientation of microtubules. Along with their research results, they will also address challenges inherent in lattice light-sheet microscopy, specifically with respect to large data handling and how such challenges can be overcome.

The workshop will also include a system demonstration using Expansion Microscopy samples, demonstrating the speed and ease-of-use of Lattice Lightsheet 7. Additional demo sessions will be available throughout the conference for those who want to learn even more about the technology.