

Abberior Super Resolution Nanoscopy

- Technologies from the Inventors, Application and Beyond

Seminar: 13:00-14:30 Thursday 16th April 2026

VENUE: Seminar room Lab1 B503, Okinawa Institute of Science and Technology (OIST), Japan



Dr. Xiaoyu Li

Abberior Instruments GmbH

Abstract:

Discover the next frontier of optical microscopy. This talk will introduce Abberior's super-resolution solutions, from core principles to recent breakthroughs in biological imaging. We will present the MIRAVA Polyscope—an all-in-one platform for multiscale visualization down to 3.2 nm precision. A focus will be MINFLUX microscopy, a game-changer in ultra-high-precision imaging and single-molecule tracking that expands possibilities for studying molecular dynamics in living systems. The talk will also cover practical sample-preparation strategies for the super-resolution era to help researchers maximize the capabilities of advanced nanoscopy.

【Register for Online Demo】

<3nm localization precision in 3D



MINFLUX Online demo

- See the nanoworld -

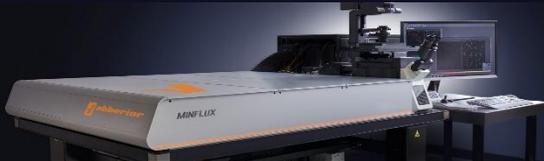
15:30-17:30 Thursday 16th April 2026

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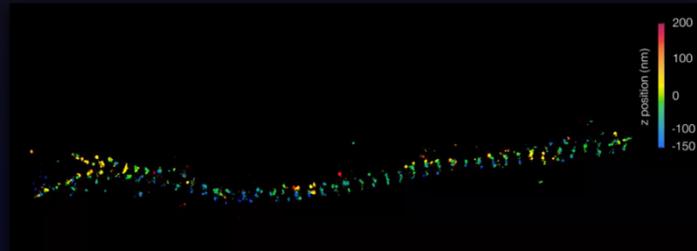


Abberior Instruments Super Resolution Microscope series

MINFLUX



Resolution 2nm
Single-molecule tracking at nanometer resolution

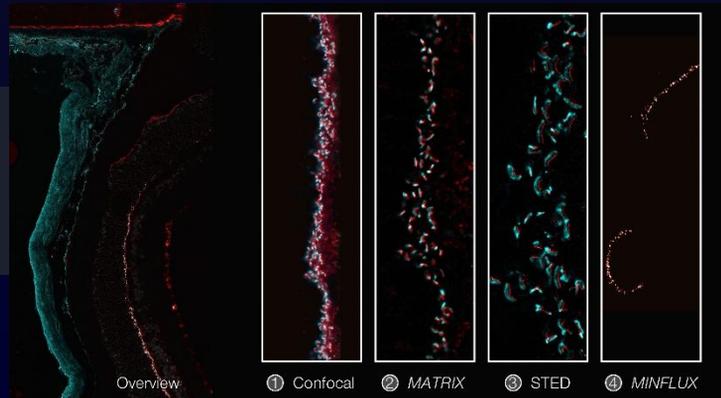


MINFLUX 3D imaging of β II spectrin in a primary hippocampal neuron labeled with Alexa Fluor 647 by indirect immunofluorescence. The axial coordinate is color-coded. Please note the periodic arrangement of spectrin along the axon.

MIRAVA POLYSCOPE



Confocal, 2D/3D STED, MATRIX, MINFLUX
Resolution 20nm@STED
Resolution 3.2nm@MINFLUX



Imaging across scales from diffraction-limited to molecular resolution: ribbon synapses in fixed mouse retina tissue stained for VAMP1 (*Abberior STAR RED*) and CtBP2 (*Abberior STAR ORANGE*) (confocal, MATRIX, STED) or for Bassoon (MINFLUX).

Sample courtesy: Arlene Hirano, PhD, University of California Los Angeles, Los Angeles, CA, USA (confocal, MATRIX, STED), and by Dr. Chad Grabner and Prof. Dr. Tobias Moser, Max Planck Institute for Multidisciplinary Sciences, Göttingen, Germany (MINFLUX).

STEDYCON2



Compact STED
Resolution 30nm



Samples courtesy of: Dr. Chunyan Shan, Core imaging facility, School of Lifescience, Peking University, Beijing.