



**Room 404AB: Sunday, February 16**

**9:30 AM – 11:00 AM**

**Bruker**

**The Bruker Vutara VXL: Dual-Camera Super-Resolution Microscopy with Fluidics, spTracking, and Live Cell Imaging**

The Bruker Vutara VXL is a cutting-edge single-molecule localization microscopy (SMLM) system that breaks the diffraction limit of traditional fluorescence microscopy, achieving an optical resolution of 20 nm. Its dual-camera system enables simultaneous multi-color imaging, providing a comprehensive view of cellular processes.

The integration with the PlexFlo fluidics platform supports automated, high-throughput experiments, enhancing experimental efficiency and reproducibility. The Vutara VXL also excels in single-particle tracking (spTracking) and live cell imaging, allowing for dynamic studies of molecular interactions and cellular behaviors in real-time.

Employing techniques such as STORM, PALM, dSTORM, and DNA-PAINT, the Vutara VXL constructs high-resolution images of cellular structures, proteins, RNA, and chromosomal regions. Its proprietary bi-plane technology extends imaging into the third dimension, enabling the visualization of thick specimens without TIRF illumination.

This presentation will highlight the Vutara VXL's dual-camera system, fluidics integration, spTracking, and live cell imaging capabilities, demonstrating how these features enhance super-resolution imaging and facilitate complex biological research.

**Speaker**

Winfried Wiegand, Product Manager Super-Resolution Microscopy, Bruker