QUSCITE: The stagetop TIRF module with square millimetres field-of-view and VAHEAT: precise temperature control for high-resolution microscopy

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Abstract

Join us for this workshop and discover how even non experts can turn any microscope into a TIRF microscope within a few minutes using QUSCITE. QUSCITE is a chip-based TIRF module that utilizes photonic integrated circuitry to separate the excitation from the detection path. This principle overcomes many shortcomings of conventional TIR approaches including a large, evenly illuminated field of view in the range of square millimeters, no calibration nor optical adjustments, fixed penetration depth, and improved signal-to-background ratio.

The workshop's second part will focus on the importance of precise temperature control in high- and super-resolution microscopy, an often-overlooked environmental factor that reduces experimental reproducibility. We will briefly review state-of-the-art approaches for temperature management in light microscopy and introduce VAHEAT, a device that combines local heating with direct temperature measurement, allowing for precise temperature control in the field of view during different experimental scenarios.

Take advantage of this opportunity to learn how to turn any microscope into a TIRF microscope using QuScite and how to ensure reproducible results through precise temperature control using VAHEAT. This workshop will help you to understand potential bottlenecks in your experiments and will give you the tools to overcome them.