

# StedyCon

Location: CSC Room 30

## Main features of StedyCon:

- STEDYCON from Abberior is a new class of nanoscope with multicolor confocal and STED (Stimulated emission depletion) capabilities. The lateral STED resolution could reach 30nm depending on dyes and objectives used. The acquired STEDYCON system is fitted on a Nikon Ti-S-E inverted microscope from a camera port and equipped with four excitation lasers: 405 nm CW and 488, 561, 640 nm pulse laser.
- The STED process is applied by a 775 nm pulse laser. Four highly sensitive single-photon-counting Avalanche photodiode detectors (APD) are mounted.
- Two STED and four confocal imaging channels can be detected. A 100X/NA=1.45 oil immersion lens and other low magnification lens are provided to satisfy versatile measurements.
- An XY stage from Marzhauser and an ultra-fast and precise Piezo Z stage from PIFOC are mounted. Browser-based acquisition software is installed on a powerful PC with a Windows 10 system.
- Other advanced functions including Z stack, multipositioning, time series, and tiling and stitching can be performed.

## Objectives:

Objective	Magnification	Immersion	Numerical Aperture	Correction Ring	Coverglass (mm)	Working Distance (mm)
Plan Apo Lambda	4X	Air	0.2			20
Okan-Neofluar	5X	Air	0.15		0.17	13.6
Plan Apo	10X	Air	0.45		0.17	4
PlanApo Lambda	20X	Air	0.75		0.17	1
Plan Apo Lambda	60X	Oil	1.4		0.17	0.13
Plan Apo Lambda	100x	Oil	1.45		0.17	0.13

---

Revision #2

Created 20 November 2023 21:47:46

Updated 15 March 2024 21:15:47