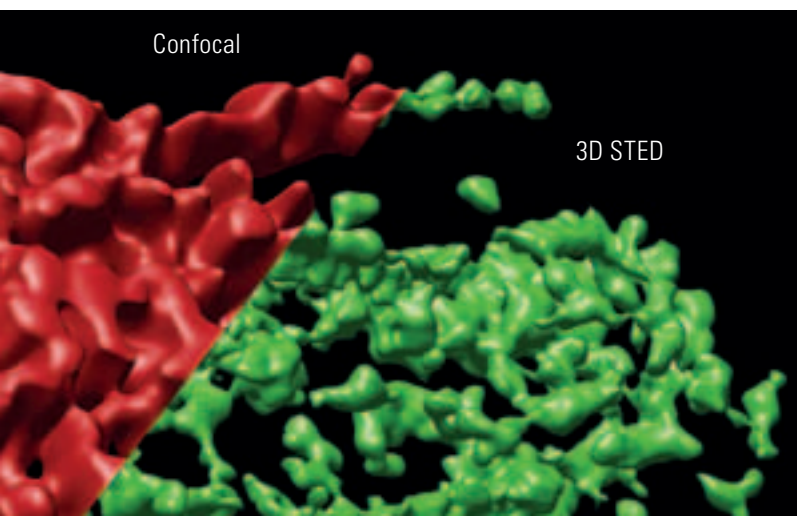


Living up to Life

**Leica**  
MICROSYSTEMS

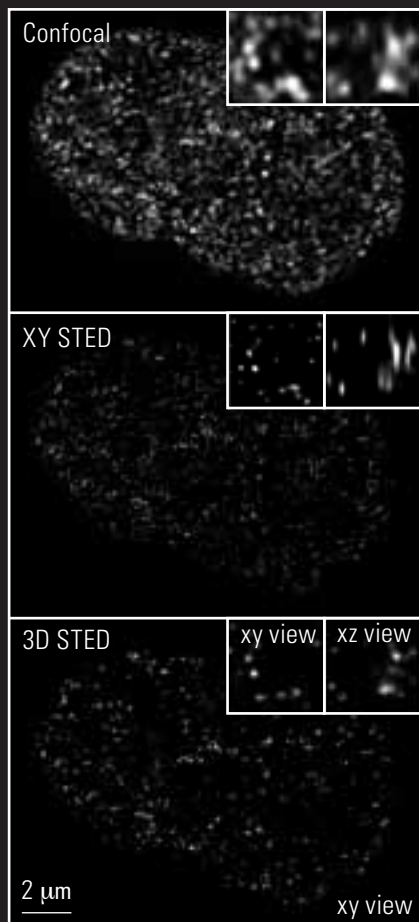
# Leica TCS SP8 STED 3X

Your Next Dimension!



The new Leica TCS SP8 STED 3X offers STED microscopy over the whole spectrum of visible light and opens the door to super-resolution in all dimensions.

- › Tunable, direct super-resolution in x, y and z
- › Multicolor colocalization beyond limits
- › Excellent, super-resolved live cell imaging with gated STED
- › Smart STED Wizard intuitively controls your experiments
- › Huygens deconvolution gets more from your raw data

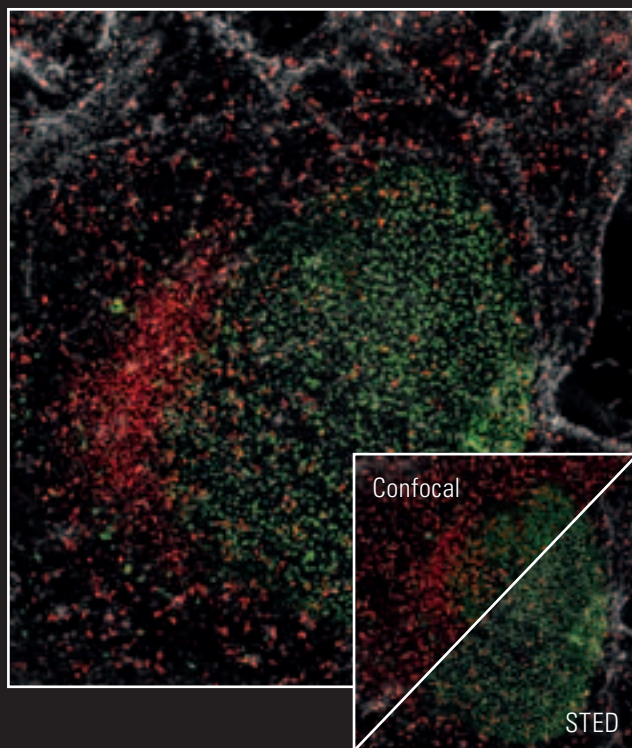


Histone H3-Alexa 568 in HeLa cells: The highest lateral resolution increase is achieved by the vortex donut, maximal resolution increase in x, y and z by 3D STED.

## Push the Boundaries!

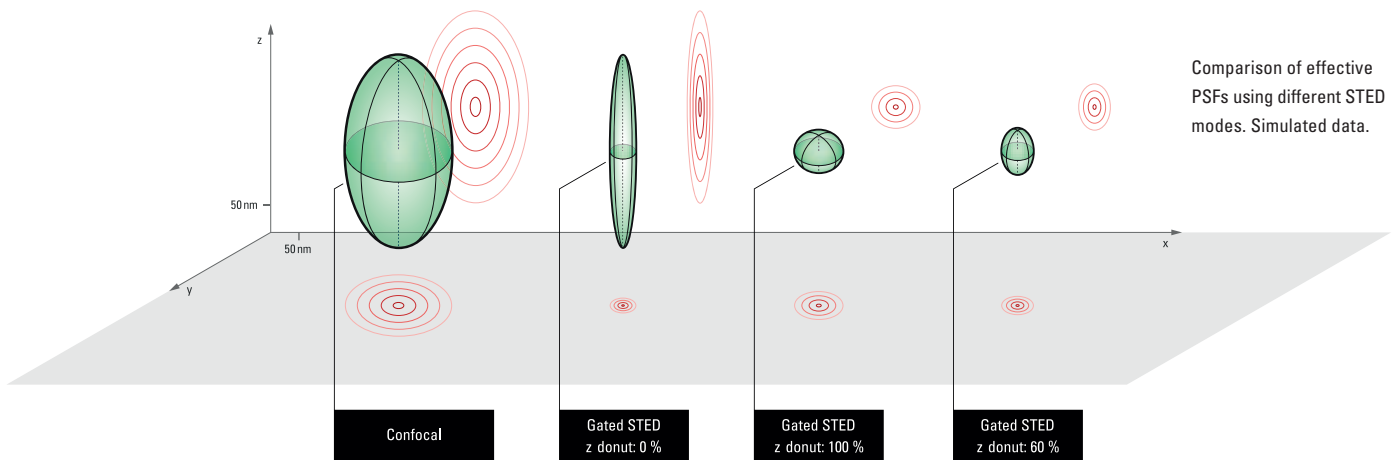
The new STED 3X allows you to extend super-resolution imaging in all dimensions for spatial studies of cellular processes. The STED 3X module generates two STED patterns: the classical STED donut for best lateral resolution and the z donut for axial super-resolution. STED light can be continuously distributed between the two paths. Select the point spread function that best fits your science.

Triple immunostaining in HeLa cells: Three colors are achieved with one STED line. Green: NUP 153-Alexa 532, red: Clathrin-TMR, white: Actin- Alexa 488. 660 nm gated STED.



## See the Full Spectrum of Life

Seeing subcellular structures in nanoscopic detail opens a new world for scientific study. Multicolor applications provide access to detailed information about the relationships of various structures. The new STED 3X module offers multiple STED laser lines of different wavelengths. Super-resolved colocalization studies have never been so easy.



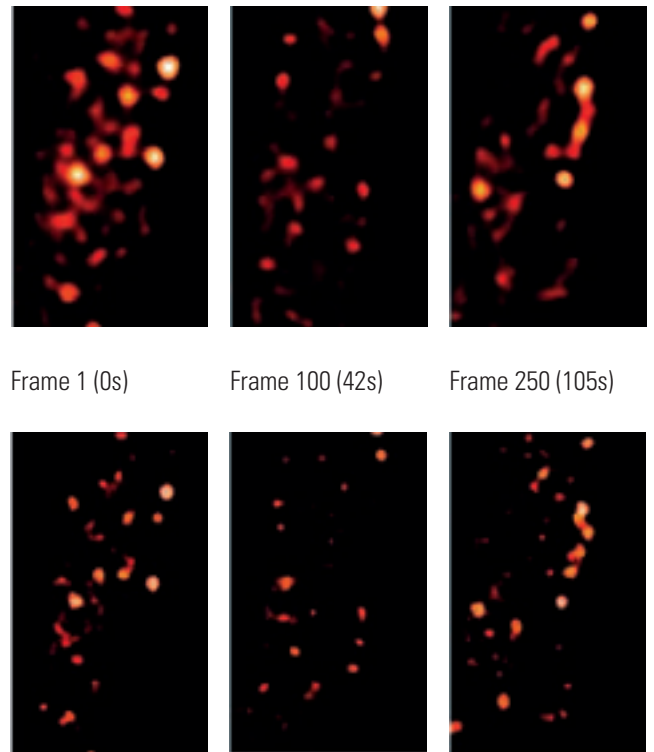
# Enter Your Gateway to Live Cell Super-Resolution

Gated STED substantially extends the functionality of CW STED, giving you the option of higher resolution or lower laser power. More images can be obtained and smaller details revealed.

**Times series:** ANF GFP labeled dense core vesicles moving along axons ca. 10  $\mu\text{m}$  deep inside an intact anaesthetized drosophila larva. A confocal and STED image were recorded every 0.45 seconds.

**Upper panel:** Confocal.

**Lower panel:** 20% STED light with gate start at 1 ns.



## LESS TIME FOR SET-UP, MORE TIME FOR RESEARCH

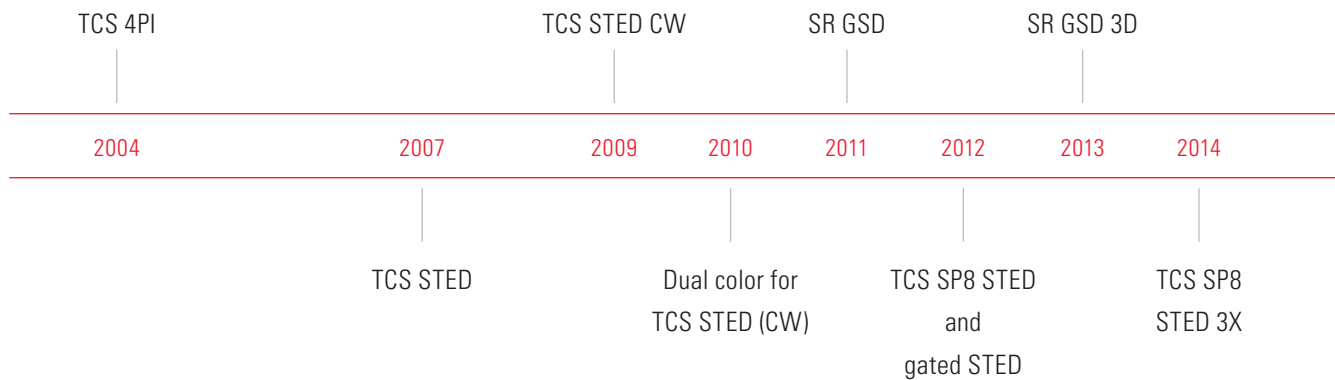
The TCS SP8 STED 3X attends to the alignment of laser beams and offers maximum convenience for setting up and controlling your experiments using implemented software tools so that you can focus on your research and not the instrument.

- › Auto alignment of laser beams
- › Smart STED wizard and online sketch of estimated PSF
- › System optimized xy format and number of z slices
- › Huygens STED deconvolution package (SVI) included
- › LAS AF software ↔ Huygens data exchange



# A Decade of Super-Resolution Innovation

Working with passion for the global research community: The TCS SP8 STED 3X marks one decade of innovative super-resolution technology by Leica Microsystems – providing quality data and efficient processes for your science.



## ALL THE INFORMATION YOU WANT

Are you curious to delve into the world of microscopy? Do you need background information or expert advice? Or do you just want to know more about the TCS SP8 STED 3X? Get in touch with Leica Microsystems – connect with us on our online platforms!

Join us on:



CONNECT WITH US



www.leica-microsystems.com/sted3x

