Scientific Volume Imaging b.v.

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Laapersveld 63
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The Netherlands

"Deconvolution and Image Restoration with Huygens"

9.30 - 10.15 : Presentation. *How to get the best out of your microscopic (super-resolution) images - Huygens image restoration*
General introduction to microscopic image formation and restoration. Light/Wave properties, Deconvolution, Point spread function (theoretical vs experimental), imaging issues and pitfalls

10.15 - 10.25 : Short break

10:25 - 10.50 : Organize and search images with Huygens Titan (hands-on)
Titan is as simple and easy solution for any local computer to index, search, view, and annotate microscopical images.

10:50 - 11.15 : Huygens (STED) Deconvolution and Batch processing
Improve signal to noise and resolution with the Huygens Deconvolution Wizard, and how to schedule multiple jobs.

11:15 - 11.35 : Hands-on Huygens (STED) Deconvolution
Attendees will get some hands-on experience with deconvolution in Huygens.

11:35 - 12.10 : Huygens Remote Manager + Core (and hands-on)
Explanation and hands-on of the HRM (also available via the ALMF).

12:10 - 13:30 : Lunch Break

13:30 – 14:00 : Twin Slicer (with hands-on)
Attendees will get some hands-on experience with using the Twin Slicer

14:00 - 14.30 : PSF Distiller
Attendees will get experience with distilling PSFs from bead images

14:30 - 15:00 : *Short introduction* - Chromatic Shift and CrossTalk Correction, and Image Stabilization
How do imaging artifacts affect my analysis? - and how to treat such data.

15:00 - 15:20 : 3D Stitching with deconvolution and fully automated vignetting correction
The new Huygens Stitcher will be demonstrated. Combined automated stitching, deconvolution, and vignetting correction minimizes computer workload and saves your precious time.

15:20 - 15:35 : MovieMaker
Creating 3D movies with the MIP, SFP, and Surface Renderers

15.35 - 15.50 : Short break

15.50 - 16:10 : Colocalization Analyzer
How to measure colocalization, which coefficients should I use, and how to do this with Huygens

16.10 - 16:30 : Hands-on Colocalization Analyzer

16:30 - 17:00 : Summary and Discussion