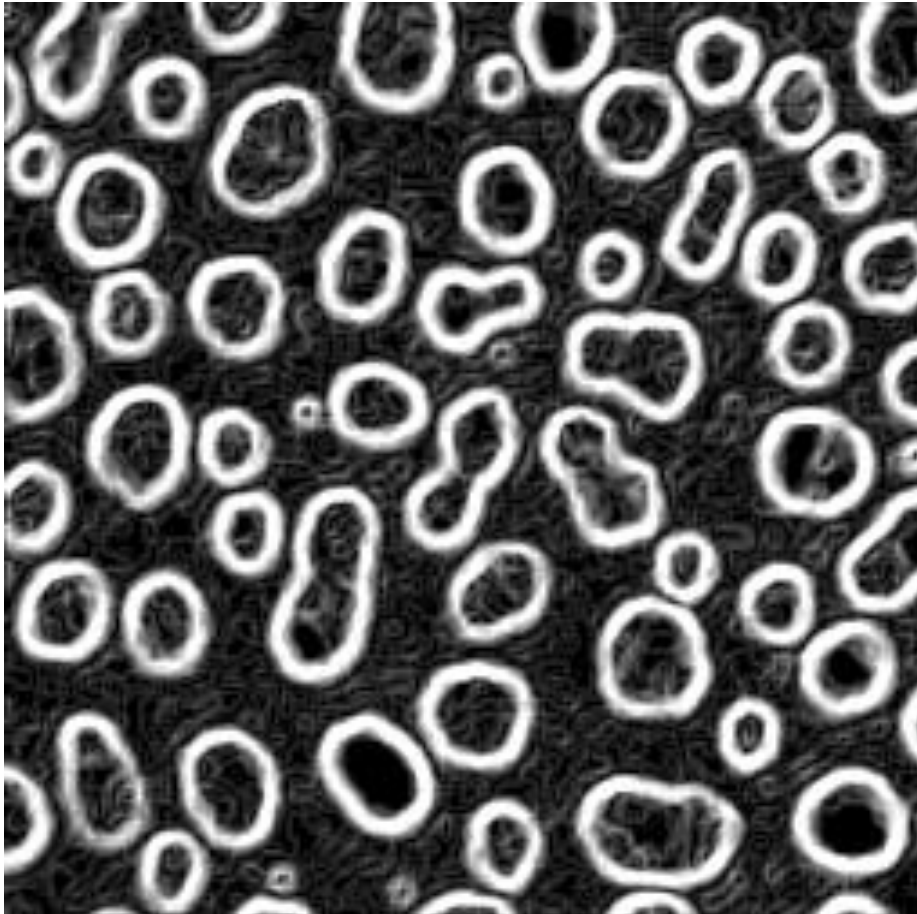


IMAGE PROCESSING PHD COURSE PROGRAMME

MONDAY 6TH OF OCTOBER 2014 – FRIDAY 10TH OF OCTOBER 2014



Teachers and instructors

Christian Tischer (CT), Advance Light Microscopy Facility, EMBL

Simon F. Nørrelykke (SN), Image and Data Analysis Unit, ETH Zurich

Kenton Arkill (KA), University of Bristol

Jose Manuel Amigo Rubio, University of Copenhagen

Erik von Stedingk, BITPLANE

UNIVERSITY OF COPENHAGEN
DEPARTMENT OF BIOMEDICAL SCIENCES



Monday 6th of October

09:00 – 9:15	Welcome and Introduction
09:15 – 10:15	Overview-lecture on digital image processing and analysis
10:15	Coffee
10:30 – 12:00	Software installation Visualisation and inspection of image data
12:00 – 13:00	Lunch
13:00 – 14:20	Visualisation and inspection of image data
14:20	Coffee
14:35 – 16:00	Manual measurements in 2-D image data

Tuesday 7th of October

09:00 – 10:15	Automated object detection in 2-D image data
10:15	Coffee
10:30 – 12:00	Advanced image processing and segmentation
12:00 – 13:00	Lunch
13:00 – 14:20	Supervised automated pixel classification Tracking
14:20	Coffee
14:35 – 16:00	3-D measurements
16 :30 - ??	Drinks and Evening lecture: <i>Do's and don'ts of image manipulation and data presentation in scientific publishing</i> by Katherine Brown, Executive Editor of Development Faculty Club. Building 16, 6 th floor

Wednesday 8th of October

09:00 – 10:15	Automated (batch) analysis of images - Fiji
10:15	Coffee
10:30 – 12:00	Basic Macro programming - Fiji
12:00 – 13:00	Lunch
13:00 – 14:20	Automated (batch) analysis of images - CellProfiler
14:20	Coffee
14:35 – 16:00	Automated (batch) analysis of images - CellProfiler

Thursday 9th of October

09:00 – 10:15	MatLab
10:15	Coffee
10:30 – 12:00	Additional analysis software packages
12:00 – 13:00	Lunch
13:00 – 14:20	Image processing of EM micrographs
14:20	Coffee
14:35 – 16:00	Exercise 1 – 1st Rotation
	<ul style="list-style-type: none">• Group 1 - FIB/SEM 3-D reconstruction KA• Group 2 - Statistical analysis SN• Group 3 - 3-D reconstruction with Imaris ES

Friday 10th of October

09:00 – 10:20

Exercise 1 – 2nd Rotation

- [Group 3](#) - FIB/SEM 3-D reconstruction KA
- [Group 1](#) - Statistical analysis SN
- [Group 2](#) - 3-D reconstruction with Imaris ES

10:20

Coffee

10:35 – 12:00

Exercise 1 – 3rd Rotation

- [Group 2](#) - FIB/SEM 3-D reconstruction KA
- [Group 3](#) - Statistical analysis SN
- [Group 1](#) - 3-D reconstruction with Imaris ES

12:00 – 13:00

Lunch

13:00 – 14:20

Exercise 2 – 1st Rotation

- [Group 1](#) - TEM tomography KA
- [Group 2](#) - Sampling considerations (Stereology) SN

14:20

Coffee

14:35 – 16:00

Exercise 2 – 2nd Rotation

- [Group 2](#) - TEM tomography KA
- [Group 1](#) - Sampling considerations (Stereology) SN