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Seeing beyond



LECTURES

ON - PLACE

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Day 1 TUESDAY, June 7, 2022

09:00 Introductory word, practical information & course organization.

Ivan Novotný

09:30 Resolution in light microscopy; high-res. confocal microscope.

Ivan Novotný

coffee break

10:30 Principles of microscopy image deconvolution.

Martin Čapek

11:15 High resolution computational methods.

Michaela Blažíková

lunch

13:00 Lightning

Pragolab/Leica

13:30 SRRF Stream

OptiXs/Andor

14:00 Practical sessions (3 parallel groups):
HiRes Confocal(group1) | Lightning(group2) | SRRF(group3)

coffee break

16:00 Practical sessions (3 parallel groups):
HiRes Confocal(group2) | Lightning(group3) | SRRF(group1)

coffee break

18:00 Practical sessions (3 parallel groups):
HiRes Confocal(group3) | Lightning(group1) | SRRF(group2)

20:00 WrapUp, discussion ... and sandwich dinner

Day 2 WEDNESDAY, June 8, 2022

09:00 2x scientific lecture.

TBA

10:00 Structured illumination microscopy - SIM.

Martin Čapek

coffee break

10:45 SIM and confocal microscope - similarities and differences.

Ivan Novotný

11:15 Lattice SIM

ZEISS

11:45 Advanced stable Fluoro-Dyes for SR microscopy

Sven Biolabs

lunch 12:15

13:00 Practical sessions (3 parallel groups):
SIM(group1) | LatticeSIM(group2) | SIM reconstruction(group3)

coffee break

15:00 Practical sessions (3 parallel groups):
SIM(group2) | LatticeSIM(group3) | SIM reconstruction(group1)

coffee break

17:00 Practical sessions (3 parallel groups):
SIM(group3) | LatticeSIM(group1) | SIM reconstruction(group2)

20:00 Super-resolved SOCIAL EVENT

Day 3 THURSDAY, June. 9, 2022

09:00 2x short scientific lecture.

TBA

09:30 Stimulated emission depletion - STED microscopy.

Ivan Novotný

coffee break

10:30 Single molecule localization microscopy - SMLM.

Michaela Blažíková

11:30 TBA, (Solutions for localization microscopy)

NIKON

lunch 12:00

13:00 Practical sessions (2 parallel groups):
STED(group1) | dSTORM/3D PALM(group2)

coffee break

15:30 Practical sessions (2 parallel groups):
STED(group1) | dSTORM/3D PALM(group2)

coffee break

18:00 TBA, (Consumable equipment for advanced microscopy)

KRD

18:30 Take-home message from SR light microscopy

Participants

19:00 Conclusion & Farewell dinner

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