



<https://course.img.cas.cz/slm/>



Seeing beyond



LECTURES

ON - PLACE

LECTURES

ON - PLACE

LECTURES

ON - PLACE

**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
	<i>coffee break</i>	
10:30	Principles of microscopy image deconvolution.	Martin Čapek
11:15	High resolution computational methods.	Michaela Blažíková
	<i>lunch</i>	
13:00	Lightning	Pragolab/Leica
13:30	SRRF Stream	OptiXs/Andor
<hr/>		
14:00	Practical sessions (3 parallel groups): HiRes Confocal(group1)   Lightning(group2)   SRRF(group3)	
	<i>coffee break</i>	
16:00	Practical sessions (3 parallel groups): HiRes Confocal(group2)   Lightning(group3)   SRRF(group1)	
	<i>coffee break</i>	
18:00	Practical sessions (3 parallel groups): HiRes Confocal(group3)   Lightning(group1)   SRRF(group2)	
20:00	WrapUp, discussion ... <i>and sandwich dinner</i>	

**Day 2 WEDNESDAY, June 8, 2022**

09:00	2x scientific lecture.	TBA
10:00	Structured illumination microscopy - SIM.	Martin Čapek
	<i>coffee break</i>	
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
	<i>lunch 12:15</i>	
<hr/>		
13:00	Practical sessions (3 parallel groups): SIM(group1)   LatticeSIM(group2)   SIM reconstruction(group3)	
	<i>coffee break</i>	
15:00	Practical sessions (3 parallel groups): SIM(group2)   LatticeSIM(group3)   SIM reconstruction(group1)	
	<i>coffee break</i>	
17:00	Practical sessions (3 parallel groups): SIM(group3)   LatticeSIM(group1)   SIM reconstruction(group2)	
20:00	<b>Super-resolved SOCIAL EVENT</b>	

**Day 3 THURSDAY, June. 9, 2022**

09:00	2x short scientific lecture.	TBA
09:30	Stimulated emission depletion - STED microscopy.	Ivan Novotný
	<i>coffee break</i>	
10:30	Single molecule localization microscopy - SMLM.	Michaela Blažíková
11:30	TBA, (Solutions for localization microscopy)	NIKON
	<i>lunch 12:00</i>	
<hr/>		
13:00	Practical sessions (2 parallel groups): STED(group1)   dSTORM/3D PALM(group2)	
	<i>coffee break</i>	
15:30	Practical sessions (2 parallel groups): STED(group1)   dSTORM/3D PALM(group2)	
	<i>coffee break</i>	
18:00	TBA, (Consumable equipment for advanced microscopy)	KRD
18:30	Take-home message from SR light microscopy	Participants
19:00	Conclusion & Farewell dinner	

The course is organized by the Institute of Molecular Genetics of the Czech Academy of Sciences in the framework of the Czech-BioImaging research infrastructure supported by The Ministry of Education, Youth and Sports. (LM2015062)