

Deep learning for microscopy image analysis 2021

22-25 Nov 9 am - 10 pm (CET)

26 Nov 9 am - 7 pm (CET)

19 Nov

14:30 - 15:30 PM
Computer set-up

	22 Nov	23 Nov	24 Nov	25 Nov	26 Nov
9:00 AM	Welcome	Lecture: <i>Alexander Krull</i> (University of Birmingham, UK) and <i>Florian Jug</i> (HT)	Lecture: <i>Anna Kreshuk</i> (EMBL, DE)	Lecture: <i>Loïc Royer</i> (CZ Biohub, US)	Project Check-in
9:30 AM	Team Assignments	Image Restoration	Semantic Segmentation	Failure Modes	
10:00 AM	Exercise: Computer set-up	Image Restoration Q&A		Failure Modes Q&A	
10:30 AM			Lecture: <i>Martin Weigert</i> (EPFL, CH)	Project Time Kickoff	Project Time
11:00 AM	Lecture: <i>Virginie Uhlmann</i> (EMBL-EBI, UK)	Exercise: Image Restoration	Instance Segmentation		
11:30 AM	Learning for bioimage analysis - a high-level overview		Segmentation Q&A		
12:00 AM	Lecture: <i>Florian Jug</i> (HT)			Project Time	
12:30 AM	Machine Learning & Deep Learning in a nutshell		Exercises: Pixel Classification and Instance Segmentation		
1:00 PM	Lunch	Lunch	Lunch	Lunch	Lunch
1:30 PM					
2:00 PM	Exercise: Intro to Machine Learning & Deep Learning	Theory Q&A	Continue Exercise: Pixel Classification and Instance Segmentation	Project Time	Project Time
2:30 PM					
3:00 PM		Continue Exercise: Image Restoration			Prepare Presentations
3:30 PM	Break	Break	Break	Break	Break
4:00 PM	Exercise: Intro to Machine Learning & Deep Learning	Continue Exercise: Image Restoration	Continue Exercise: Pixel Classification and Instance Segmentation	Project Time	Prepare Presentations
4:30 PM					Student Presentations
5:00 PM					
5:30 PM	Q&A	Optional Lecture: <i>Florian Jug</i> (HT)	Optional Lecture: <i>Florian Jug</i> (HT)		
6:00 PM		Image Translation	Ground Truth generation		
6:30 PM		Q&A	Q&A	Q&A	
7:00 PM	Dinner	Dinner	Dinner	Dinner	
7:30 PM					
8:00 PM	Continue Exercise (optional)	Continue Exercise (optional)	Continue Exercise (optional)	(optional) Project Time	
8:30 PM	Intro to Machine Learning & Deep Learning	Image Restoration	Pixel Classification and Instance Segmentation		
9:00 PM					
9:30 PM					
10:00 PM					

LECTURES
EXERCISES
OTHER
PROJECT TIME