


PROCESSING AND ANALYSIS OF MICROSCOPIC IMAGES IN BIOMEDICINE (PAMIB), OCTOBER 4-8, 2021

	Monday 4.10.	Tuesday 5.10.	Wednesday 6.10.	Thursday 7.10.	Friday 8.10.
08:30 - 09:00	REGISTRATION	X	X	X	
09:00 - 09:45	Digital image formation <i>Michaela Blažíková</i>	Image acquisition conditions and deconvolution <i>Ivan Novotný</i>	I am watching you or what it means "tracking" <i>Michaela Blažíková</i>	3D/4D image visualization and analysis in Imaris <i>Daniel Reisen</i>	Estimation of volume and surface (Point Grid, Cavalieri's principle, Fakir) - virtual and/or physical sections ----- Estimation of length and particle numbers (Slicer, Disector) - virtual sections 09.00-12.30 (2 parallel groups)
	Digital image terminology <i>Ivan Novotný</i>	Huygens : Image deconvolution I <i>Ivan Novotný</i>	Fiji: Tracking - practicals <i>Michaela Blažíková</i>	Imaris : Examples of interactive image analysis and visualization (using cloud computers) <i>Daniel Reisen</i>	
10:35 - 10:55	COFFEE	COFFEE	COFFEE	COFFEE	COFFEE
10:55 - 11:40	Digital image terminology / Introduction into Fiji 1 <i>Ivan Novotný</i> <i>Michaela Blažíková</i>	Huygens : Image deconvolution II <i>Ivan Novotný</i>	Evaluation of colocalisation in microscopic images <i>Martin Čapek</i>	FRAP data analysis <i>Michaela Blažíková</i>	3D analysis: Scale setting, 3D image filtration and measurement in Fiji ----- Triangulated surfaces reconstruction 09.00-12.30 (2 parallel groups)
	Introduction into Fiji 2 <i>Michaela Blažíková</i>	Huygens : Image deconvolution III (stand-alone practical tasks) <i>Ivan Novotný</i>	Fiji: Evaluation of colocalisation in microscopic data <i>Martin Čapek</i>	Fiji: FRAP data analysis <i>Michaela Blažíková</i>	
12:30 - 13:30	LUNCH	LUNCH	LUNCH	LUNCH	INFORMAL LUNCH WITH PIZZA 12.30-13.00
13:30 - 14:15	Introduction into Fiji 3 <i>Michaela Blažíková</i>	Segmentation methods <i>Martin Čapek</i>	Pattern: Evaluation of clustering and colocalisation of point patterns <i>Vlada Philimonenko</i>	3D image processing and geometrical modelling <i>Jiří Janáček</i>	FINAL COURSE EVALUATION + CERTIFICATE HANDOVER 13.00-14.00
	Image analysis in Fiji <i>Michaela Blažíková</i>	Fiji: Using segmentation for detection of structures in various microscopic images <i>Martin Čapek</i>	Fiji: Macros - Introduction into IJM language <i>Martin Čapek</i>	Fiji: Image filtration / Morphological image processing and analysis <i>Jiří Janáček</i>	
15:10 - 15:55	Fiji: Stand-alone practical tasks <i>Michaela Blažíková</i>	Fiji: Artificial Intelligence (AI) approaches to image segmentation <i>Martin Čapek</i>	Fiji: Using macros for data processing and analysis <i>Martin Čapek</i>	Stereological methods and measurement <i>Barbora Radochová</i>	    <small>MINISTRY OF EDUCATION, YOUTH AND SPORTS</small> 
	Short participant test	Short participant test	Short participant test	Short participant test	

Practicals in One Group

Theoretical Lectures

 Practicals in Two
 Parallel Separated
 Groups