

Elective course: Imaging Techniques in Light Microscopy

Max-Rubner-Institute (MRI), Room 201 O25

Tuesday 16:00-17:30

1	09.11.	History and Basics	MB
2	16.11.	Basic Wide Field Microscopy I (Bright field, Phase contrast, DIC)	MB
3	23.11.	Fluorescent Probes	AK
4	30.11.	Biological Sample Preparation	MB
5	07.12.	Basic Wide Field Microscopy II (Fluorescence Microscopy)	MB
6	14.12.	Optical Elements	AK
7	21.12.	Lasers and Light Sources, Light Detectors	AK
8	11.01.	Basic Laser Scanning Microscopy (LSM)	MB
9	18.01.	Advanced LSM	MB
10	25.01.	Image Processing	MB
11	01.02.	High Resolution Techniques (SIM, PALM, STED)	MB
12	08.02.	Single Molecule Techniques (FCS, FRET, FLIM)	AK
13	??.??	Optical Tweezers, Atomic Force Microscopy (AFM)	MS,CF

MB: Martin Bastmeyer (bastmeyer@kit.edu)

AK: Andrey Kobitzkiy (a.kob@kit.edu)

Literature:

A.R. Hibbs (2004): Confocal Microscopy for Biologists, Springer

J.B. Pawley (2006): Handbook of Biological Confocal Microscopy, Plenum

R.D. Goldman & D.L. Spector (2005): Live Cell Imaging, CSH Press

S. Inoue & K. R. Spring (1997): Video Microscopy, Springer