

Advanced Image Analysis and Macro Scripting

Objective

Learning specific analysis methods for digital images and understanding the ImageJ macro language to make automation of your image processing fully flexible.

Description

The course will take three days and partially build up on the basic “Processing and Analysis of Scientific Images” workshop (offered by GRADE in January 2019). An example pipeline will be explained step by step how to fully automate a diverse analysis of multichannel images in bulk (complete folders and subfolders). The second part deals with a collection of specific image analysis techniques which will be chosen by the participants based on a prior questionnaire.

Methodology

Step-by-step introduction to ImageJ macro language for processing automation
Optional methods depending on participants decision such as (only an excerpt):

- Statistical co-localization
- 3D/4D tracking of moving objects and image shift correction
- Analysis of true-color images (e.g. histological sections)
- 3D segmentation and 3D measurements
- Western Blot analysis and its pitfalls

Conditions

- Some proficiency in handling of ImageJ/Fiji software is necessary
- Participation in the basic workshop is not mandatory but recommended to understand image processing methods such as:
 - Usage and characteristics of basic image filters (e.g. Gaussian, Median)
 - Usage of automatic thresholds for image segmentation
 - Binary image modifications (e.g. Watershed, Erosion/Dilation)

Trainer



Dr. Jan Brocher
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Founder and CEO of
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Organizational Information

Language / Format	English / Online
Target group	Doctoral Candidates at all stages and Postdocs from Natural and Life Sciences
Date	Monday-Wednesday, 13-15 February 2023, 9:00 – 15:30
Registration	For registration click here