

Technical aspects of experiments using advanced light microscopy

IPHYS Bioimaging facility

Krc Campus, Videnska 1083, Prague 4

Program:

May 17th 2022

1. Preparation phase – lectures on designing experiment

- 9.30 IPHYS Introduction
- 9.45 Preparation phase of the experiment I How to plan?
- 11.00 Preparation phase of the experiment II How to sample?
- 11.30 Coffee break
- 11.45 Preparation phase of the experiment III How to test?
- 12.30 Preparation phase of the experiment IV How to prepare samples?
- 13.15 Lunch

2. Realization phase – data acquisition on Leica SP8 and Stellaris 8

- 14.00 Realization of an experiment I How to acquire data?
- 15.00 Realization of an experiment II How to acquire data at Leica SP8?
- 16.00 Coffee break
- 16.15 Realization of an experiment III How to acquire data at Leica Stellaris?
- 17.15 IPHYS Bioimaging facility excursion and afterparty

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3. Evaluation phase – data processing, analysis and methods comparison

- 9.30 Evaluation of an experiment I How to segment in 2D and 3D?
- 10.15 Evaluation of an experiment II How to segment with AI?
- 11.00 Coffee break
- 11.15 Evaluation of an experiment III How to do stereology?
- 12.00 Evaluation of an experiment IV How to measure in virtual reality?
- 12.45 Lunch

4. Interpretation phase – conclusions and discussion

- 13.45 Interpretation of an experiment I How to prepare and present the data?
- 15.15 Interpretation of an experiment II How participants present?
- 16.00 Free discussion and conclusion with tea