



# TRAINING SCHOOL on IMARIS-based 3D IMAGE PROCESSING & ANALYSIS OF THE 3D NUCLEUS

**Zürich December 7-11, 2020**



Event organised by the **INDEPTH COST-Action CA16212**  
Trainer: Célia Baroux, *IPMB, University of Zürich*  
Partners: Bitplane AG, Oxford Scientific Instruments.  
IPMB, University of Zürich, Switzerland.



**University of  
Zürich<sup>UZH</sup>**

## Day 1

- 9:00 Arrival & short tour
- 9:30-10:00 Introduction to the course & round-table presentations
- 10:00-11:00 Snap-Talks by participants (research question related to this training school)
- 11:00-12:00 Presentation on 3D image processing for analyzing nuclear organization *Célia Baroux*
- 12:00-13:00 lunch
- 13:00-15:00 General introduction to Imaris rendering, *Michael Mahlert (Bitplane, AG)*
- 15:00-15:30 Coffee Break
- 15:30-17:30 Practice rendering and visualization on own images  
*3D viewer, blend/MIP, slicers, frame etc.*

## Day 2

- 8:30-10:00 Image segmentation using Imaris, *Michael Mahlert (Bitplane, AG)*
- 10:00-10:30 Coffee Break
- 10:30-12:00 Practice: segment and quantify signals in nucleus, chromocenters, FISH signals
- 12:00-13:00 lunch
- 13:00-15:00 Presentation of Imaris *advanced* features, *Michael Mahlert (Bitplane, AG)*
- 15:00-15:30 Coffee Break
- 15:30-17:30 Practice 1-2 *advanced* features (to chose on a list depending on own learning need): spot/surface statistics, distance measurements, batch, plot using Vantage

## Day 3

- 8:30-10:00 Example of a pipeline for immunosignal distribution analysis *Célia Baroux*
- 10:00-10:30 Coffee Break
- 10:30-12:00 Practice pipeline
- 12:00-13:00 lunch
- Free afternoon – social programme*

## Day 4

- 8:30-17:30 Whole day practice - Project defined by instructor or by applicant  
Work in teams of 2 (3)

***Beer club (IPMB) and Dinner in town***

## Day 5

- 9:00-12:00 Delivery: presentation of results by teams
- 12:00-13:00 Lunch
- 13:00-14:00 Final questions & conclusions
- 14:00 Departure