

Workshop: Applications and Solutions for Big Data in Life Science

Jointly supported by ACQUIFER (HIVE), Bitplane (Imaris) and SVI (Huygens).
Organized by the Microscopy and Image Analysis Platform (MIAP).

A 4-day workshop* utilizing the big data storage and analysis hardware platform HIVE from ACQUIFER together with the image analysis and visualization software package Imaris from Bitplane (2-day user training included)* and the deconvolution software package Huygens from SVI (2-day user training included)*.

* The different workshop parts can be booked independently.

May 15th – 18th 2018

Life Imaging Center (LIC), Center for Biological Systems Analysis (ZBSA)
Albert-Ludwigs University Freiburg
Habsburgerstr. 49, 79104 Freiburg im Breisgau

Organization: Tobias Wernet - Microscopy and Image Analysis Platform (MIAP)
Instructors: Bettina Göppert (ACQUIFER), Matthias Ascherl (Bitplane),
Daniel Sevilla Sánchez (SVI)

Day 1: May 15 th , 09:00 – 18:00		HIVE + Imaris Day 1
09:00 – 09:45	Introduction: General Acquirer/HIVE introduction; Overview of HIVE System	
09:45 – 10:45	Introduction: Imaris Introduction: General overview, Data Import, Stitching, Visualisation of large Datasets	
10:45 – 11:00	Break: Coffee and Tea	
11:00 – 12:30	Part A: Visualization and Animation: Rendering options (MIP, Blend, Normal Shading, Shadow projection), Orthoslicer, Oblique Slicer, Clipping Plane, Snapshot and Animation Export	
12:30 – 13:30	LUNCH BREAK	
13:30 – 15:30	Part B: Segmentation I: Surface and Spot Segmentation, Measurements on Surfaces and Spots, Plotting of Results	
15:30 – 15:45	Break: Coffee and Tea	
15:45 – 18:00	Part C: Tracking: Segmentation and Analysis in 3D Time Series: Movement, Shape Changes, Lineage Analysis, Drift correction	

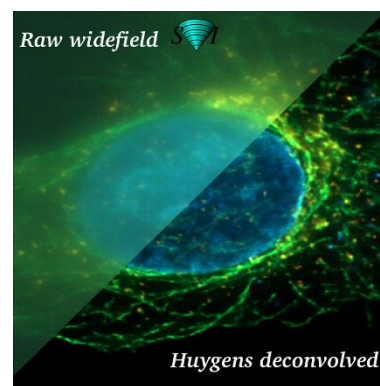
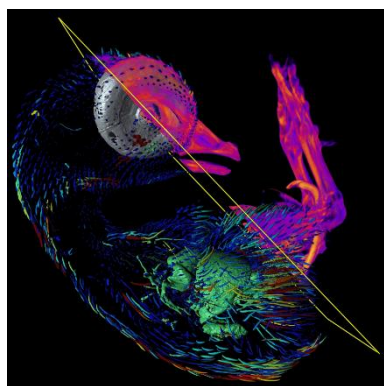
Day 2: May 16 th , 09:00 – 18:00		HIVE + Imaris Day 2
09:00 – 10:45	Part D: Segmentation II: FilamentTracing. Automatic and Manual FilamentTracing	
10:45 – 11:00	Break: Coffee and Tea	
11:00 – 12:30	Part E: Colocalisation and Programming Interface XT	
12:30 – 13:30	LUNCH BREAK	
13:30 – 15:30	Part F: Segmentation III: Cell analysis	
15:30 – 15:45	Break: Coffee and Tea	
15:45 – 18:00	Part G: Practice with own / example data, Wrap-up of Imaris workshop part	

Day 3: May 17 th , 09:00 – 18:00		HIVE + Huygens Day 1
09:00 – 09:45	Introduction: General ACQUIFER Introduction; Overview of HIVE System	
09:45 – 10:45	Introduction: Introduction on imaging by SVI: General introduction to microscopic image formation, image restoration, deconvolution algorithms and point spread function (PSF)	
10:45 – 11:00	Break: Coffee and Tea	
11:00 – 12:30	Acquisition pitfalls and how to deal with them	
12:30 – 13:30	LUNCH BREAK	
13:30 – 15:30	Visualization options and tools in Huygens • Slicer • Twin-slicer • Ortho-slicer • MIP • Volume renderer • Surface renderer* • Image-gallery • MovieMaker • Cropper	
15:30 – 15:45	Break: Coffee and Tea	
15:45 – 18:00	Chromatic aberration corrector, object stabilizer, stitcher	

Day 4: May 18 th , 09:00 – 17:00		HIVE + Huygens Day 2
09:00 – 10:45	Huygens remote manager (Huygens core)	
10:45 – 11:00	Break: Coffee and Tea	
11:00 – 12:30	Analysis options: Co-localization analyzer	
12:30 – 13:30	LUNCH BREAK	
13:30 – 15:30	Analysis options: Object analyzer, Object tracker	
15:30 – 15:45	Break: Coffee and Tea	
15:45 – 17:00	Practice with own / example data, Wrap-up of Huygens workshop part	

- Please note that this preliminary agenda is for your information only and subject to changes.
- The different workshop parts can be booked independently.
- For more detailed information, please contact MIAP: <https://www.miap.eu> info@miap.eu

ACQUIFER



BITPLANE **Imaris 9**
an Oxford Instruments company

SVI Scientific Volume Imaging
Deconvolution - Visualization - Analysis

