

MIAP Advanced Imaging Techniques (AIT) Workshop

The Life Imaging Center (LIC) is the central light microscopy facility of the Albert-Ludwigs University Freiburg. It offers the whole spectrum of modern advanced light microscopy techniques for more than 300 users from natural sciences, the medical center, the technical faculty and users from external research institutes. The LIC has 11 confocal microscopes and 9 wide-field microscopes. They can be used for a large variety of specialized techniques. A major research focus of the LIC users is the work with organisms and cell culture systems that are commonly used in developmental biology, systems biology and cell signaling research.

To provide the best experience and high-quality teaching, the LIC offers various microscopy technique workshops throughout the year. This advanced workshop is equally suited for life science undergraduate students, *Ph.D.* students, staff scientists and postdocs. It is open for external participants. The 3-day advanced workshop covers sophisticated techniques (e.g. TIRF, 2P, superresolution, photomanipulation) on confocal systems and image analysis with specialized software. Prior knowledge in microscopy (e.g. from BIT workshop) required.

December 11th – 13th 2019

Albert-Ludwigs University Freiburg

Center for Biological Systems Analysis (ZBSA), Life Imaging Center (LIC)

Habsburgerstr. 49, 79104 Freiburg im Breisgau

Organization: Microscopy and Image Analysis Platform (MIAP), University of Freiburg
Life Imaging Center (LIC), University of Freiburg

Teachers: Roland Nitschke (LIC, MIAP)
Iris Bierschenk (LIC), Sabine Haxelmans (LIC), Angela Naumann (LIC)

Day 1: December 11th, 08:30 – 18:00	
08:30 – 09:00	Welcome & General Workshop Introduction
09:00 – 10:30	Lecture Block A: TIRF, Spectral, 2P, Non-Descanned, Spinning Disk
10:30 – 10:45	Coffee Break
10:45 – 12:00	Lecture Block B: Airyscan, Superresolution
12:00 – 13:00	LUNCH BREAK
13:00 – 15:00	Practical Part: Confocal Systems LIC Facility
15:00 – 15:15	Coffee Break
15:15 – 17:15	Practical Part: Confocal Systems LIC Facility

Day 2: December 12th, 08:30 – 18:00	
08:30 – 10:30	Practical Part: Confocal Systems LIC Facility
10:30 – 10:45	Coffee Break
10:45 – 13:00	Practical Part: Confocal Systems LIC Facility
13:00 – 14:00	LUNCH BREAK
14:00 – 15:30	Data Analysis
15:30 – 15:45	Coffee Break
15:45 – 18:00	Data Analysis

Day 3: December 13th, 08:30 – 13:00	
08:30 – 10:30	Lecture Block E: Pitfalls in Handling File Formats
10:30 – 10:45	Coffee Break
10:45 – 12:00	Data Analysis, Preparation of Presentation
12:00 – 13:00	Participant's Presentations
13:00 – 13:30	Final remarks, Q&A, Closure of the AIT Workshop

- This preliminary agenda might be subject to changes.
- For more information, please contact MIAP: <https://miap.eu> info@miap.eu

