

MIAP Advanced Imaging Techniques Workshop

The Life Imaging Center (LIC) hosts more than 20 microscope systems for more than 250 individual users. For this reason, most modern microscopic techniques are available at the LIC facility. The LIC has a major focus on live cell imaging of all kinds of cells, organisms and culture systems used in cell signaling research, developmental biology and neurobiology.

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 and is open for external participants. The 3-day advanced workshop covers sophisticated imaging techniques and methods (e.g. TIRF, 2P, superresolution, photomanipulation) on confocal systems and image analysis with specialized software.

May 15th – 17th 2019

Life Imaging Center (LIC), Center for Biological Systems Analysis (ZBSA)
Albert-Ludwigs University Freiburg
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),
Sylvia Olberg, (MIAP), Tobias Wernet (MIAP)

| Day 1: May 15th, 08:30 – 18:00 | |
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| 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 – 14:00 | Remote Demonstration: Imaging Modalities |
| 14:00 – 16:00 | Practical Part: Confocal Systems LIC Facility |
| 16:00 – 16:15 | Coffee Break |
| 16:15 – 18:00 | Practical Part: Confocal Systems LIC Facility |

| Day 2: May 16th, 08:30 – 18:00 | |
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| 08:30 – 10:00 | Lecture Block C: Live Cell Labeling |
| 10:00 – 10:15 | Coffee Break |
| 10:15 – 11:00 | Lecture Block D: Deconvolution |
| 11:00 – 12:00 | Software Demonstration: Image Analysis |
| 12:00 – 13:00 | LUNCH BREAK |
| 13:00 – 15:00 | Practical Part: Confocal Systems LIC Facility |
| 15:00 – 15:15 | Coffee Break |
| 15:15 – 17:00 | Practical Part: Confocal Systems LIC Facility |
| 17:00 – 18:00 | Data Analysis |

| Day 3: May 17th, 08:30 – 17:00 | |
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| 08:30 – 09:30 | Lecture Block E: Pitfalls in Handling File Formats |
| 09:30 – 09:45 | Coffee Break |
| 09:45 – 12:00 | Data Analysis, Preparation of Presentation |
| 12:00 – 13:00 | LUNCH BREAK |
| 13:00 – 15:00 | Data Analysis, Preparation of Presentation |
| 15:00 – 15:15 | Coffee Break |
| 15:15 – 16:30 | Participant's Presentations |
| 16:30 – 17:00 | 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

