# Fundamentals of XAS data analysis: A hands-on tutorial

## AGENDA

**Day 1 – Tuesday, March 10**
*Bldg. 745 - Data Analysis Lab and Bldg. 742 for dinner*

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|---|---|
| 8:30 AM – 9:30 AM | **Breakfast** (provided) |
| 9:30 AM – 9:40 AM | **NSLS II Director's greetings** |
| 9:40 AM – 10:40 AM | **Lecture 1**: Introduction to XAS (Lu Ma) |
| 10:40 AM – 11:00 AM | **Break** |
| 11:00 AM – 11:10 AM | **Group Photo** |
| 11:10 AM – 12:00 PM | **Lecture 2**: Data reduction and background removal (Akhil Tayal) |
| 12:00 PM – 12:55 PM | **Lunch** (provided) |
| 12:55 PM – 1:35 PM | **Lecture 3:** XANES: fundamentals and analysis (Jorge Moncada Vivas) |
| 1:35 PM – 3:05 PM | **Lecture 4**: EXAFS analysis I (Bruce Ravel) |
| 3:05 PM – 3:25 PM | **Break** (provided) |
| 3:25 PM – 4:15 PM | **Hands-on session:** EXAFS analysis using Athena |
| 4:15 PM – 5:15 PM | **Lecture 5**: Sample preparation and environments: getting the most out of your science (Steve Farrell) |
| 5:30 PM – 6:30 PM | **Dinner** (provided, *Bldg. 742*) |

**Day 2 – Wednesday, March 11**
*Bldg. 745 - Data Analysis Lab and Bldg. 742 for dinner*

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| 8:00 AM– 9:00 AM | **Breakfast** (provided) |
| 9:00 AM – 9:40 AM | **Lecture 6:** Combined techniques (Lu Ma) |
| 9:40 AM – 10:20 AM | **Lecture 7:** High energy resolution techniques (Dominik Wierzbicki) |
| 10:20 AM – 10:40 AM | **Break** |
| 10:40 AM – 12:00 PM | **Lecture 8:** EXAFS analysis II (Bruce Ravel) |
| 12:00 PM – 1:00 PM | **Lunch** (provided) |
| 1:00 PM – 2:00 PM | **Lecture 9:** Understanding the EXAFS equation (Dali Yang) |
| 2:00 PM – 2:30 PM | **Hands-on session:** Understanding the EXAFS equation |
| 2:30 PM – 2:50 PM | **Break** (provided) |
| 2:50 PM – 3:20 PM | **Lecture 10:** Guidance for proposal preparation (Lisa Miller) |
| 3:20 PM – 3:50 PM | Overview of BMM, QAS, ISS & TES beamline features and capabilities |
| 3:50 PM – 5:15 PM | **Hands-on session:** EXAFS analysis using Artemis |
| 5:30 PM – 6:30 PM | **Dinner** (provided, *Bldg. 742*) |

**Day 3 – Thursday, March 12**
*Bldg. 743 – Rm. 156, Beamlines BMM, QAS, ISS & TES*

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| 8:00 AM – 9:00 AM | **Breakfast** (provided) |
| 9:00 AM –12:00 PM | **Experimental session:** XAS data collection at BMM, QAS, ISS & TES |
| 10:30 AM – 10:45 AM | **Break** |
| 12:00 PM – 1:00 PM | **Lunch** (provided) |
| 1:00 PM – 3:00 PM | **Experimental session continued** |
| 3:00 PM – 3:30 PM | **Break** (provided) & **Closeout** |