European XFEL data workshop

Luca Gelisio, for the DATA department

Workshops and training material ↗

The material presented from 2022 onward is available here ↗.

In general, links to material relevant to you is available at https://www.xfel.eu/data_analysis ↗.

Workshops and training material ⬈

Workshops and meetings

[2025] European XFEL data workshop —

Link to event

The aim of this event is to gather scientists interested in accessing and analyzing experimental data collected at European XFEL.
During the workshop, we will share information and provide tutorials on these topics.
We aim at leaving ample time for discussion, and we look forward for your input and feedback.

This meeting is part of the European XFEL Users' Meeting 2025.

[2024] Data management, analysis, and reduction at European XFEL ＋

[2023] Data analysis at the European XFEL ＋

Workshops and training material

Workshops and training material ⬈

EuXFEL Data Analysis User Documentation 🔍 Search ◈ Git

EuXFEL Data Analysis User Documentation

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Overview
Accounts and Access
Data Files
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Offline Analysis (Maxwell)
Software
Software Environments ›
Jupyter Hub
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Home

This website contains documentation for users coming to the European XFEL for a beamtime.

A description of each section:

- **Overview** - summarises key information about the operation of EuXFEL

- **Accounts and Access** - information about your user account and what access is available at different stages during your proposal

- **Data Files** - overview of the structure of proposal data folders, the data format, recommended ways to read data, information on example datasets, and more

- **Online Analysis** - information about both the infrastructure of the Online Cluster, as well as how to perform/view real-time analysis during an experiment

- **Offline Analysis** - information about the Offline Cluster (Maxwell), and how to use it to process data after acquisition

- **Jupyter Hub** - how to use Jupyter as a service or how to run your own Juypter notebook instances, on both Online and Offline environments

- **Usecases** - specific examples of software and toolboxes for instruments

- **Resources** - additional resources and documentation

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Get in touch!

Something is missing or you want to discuss your data? Get in touch!
da@xfel.eu

Announcement

DESY-European XFEL – Joint Data science session ↗

14:00	Real time data analysis at PETRA III
14:30	Weak signal extraction enabled by deep neural network denoising of diffraction data
15:00	A high-throughput data pipeline for MHz XPCS: analyzing protein dynamics via solution scattering
15:30	Machine-learning-enhanced characterization of x-ray pulses

Wednesday, 22 January 2025, 14:00 – 16:00
DESY auditorium

European XFEL

Poster session: come and talk to us!

10. A high throughput Data Pipeline for MHz XPCS: Online Analysis
11. A high throughput Data Pipeline for MHz XPCS: Offline Analysis
12. Advancing FAIR principles for XPCS data from XFEL experiments within the DAPHNE4NFDI project
15. Electronic structure calculations and X-ray spectroscopy simulations at European XFEL
21. The new Scientific Data Policy of the European XFEL
22. Data Management Plans: first experience and outlook
24. Interpretable Machine Learning at the EuXFEL
25. Enhancing spectral and temporal diagnostics at European XFEL
27. Electron-Photon Correlations: Towards X-ray Pulse Diagnostics at MHz Repetition Rates
28. xFrame: A software suite for invariant based phase retrieval in fluctuation X-ray scattering
39. DAPHNE4NFDI at European XFEL
40. Automatic data processing and results overview during SFX experiments
42. Data Managements Infrastructure for European XFEL
43. Proposal Lifecycle Services at the European XFEL
44. MyLog: the new Electronic Logbook of European XFEL
58. Automatic experiment overview with DAMNIT
64. Data reduction activities at European XFEL
65. Beamline automation activities at European XFEL
75. Data Analysis at the EuropeanXFEL

Tuesday, 21 January 2025, 16:00 – 19:00
CFEL building

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Acknowledgments

The Data Analysis and IT & Data Management groups,
Many colleagues in the Science Division and Instrumentation Department.

Acknowledgments

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Thank you!