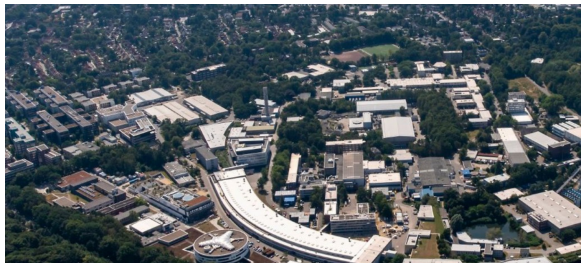
MXCuBE
site report

P11, DESY (Hamburg, Germany)

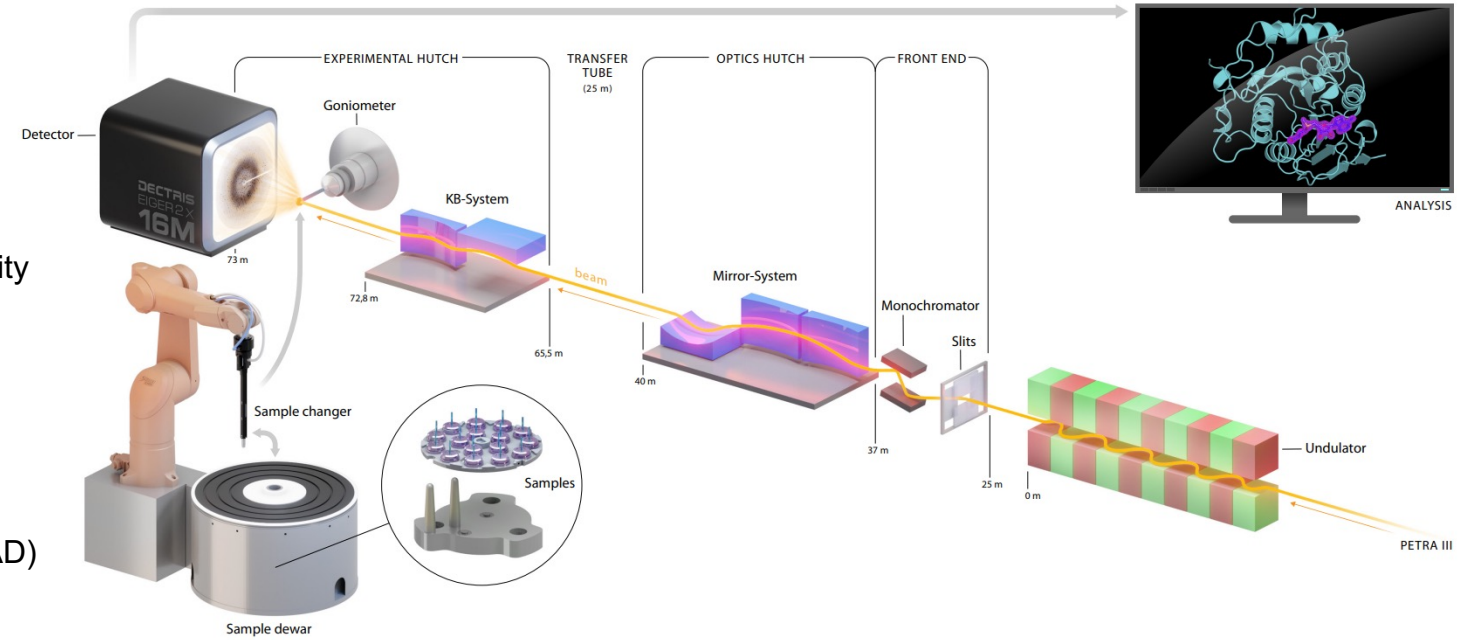
Brief beamline summary

The High-throughput Macromolecular Crystallography Beamline P11



Crystallography Experiments

- In user operation since 2013
- Broad energy range: 5.5 - 28 keV
- High-speed sample changer with capacity (23 unipucks = 368 samples)
- High precision single axis goniometer: 0.0001° at 120°/s
- Eiger2 X 16M
- XRF for experimental phasing (SAD/MAD) and element analysis



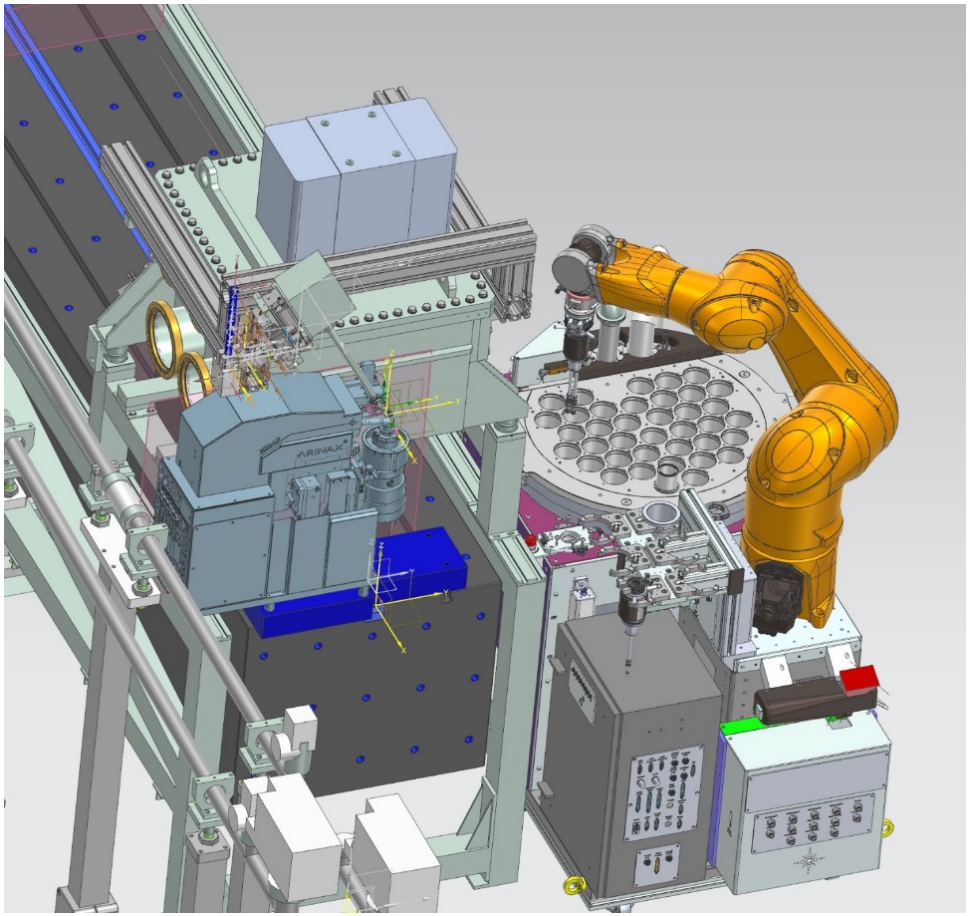
MXCuBE

- Latest mxcubeqt (dev) with a bunch of local changes – PR pending
- ~~Latest (1.273.0)~~ mxcubecore **1.193.0** (develop branch)
- Python 3.11.9, PyQt 5.15.10.

Developments since last meeting

- MXCuBE is in continuous user operation.
- Qt and Core version is frozen
- New LIMS component, xml2yaml pending until further notice
- PRs are still pending – thanks for patience!

Beamline hardware upgrade



PETRA III shutdown 9/2026-3/2027

The diffractometer ARINAX MD3-up
- Multi-axis goniometry
- Improved grid scans
- Helical scans

The FLEX-ED37 sample changer
- Increased sample capacity
- faster sample mount cycle

Plans for the next six months

- Code cleanup
- New PRs
- ISPyB/EXI EDNA Workflows display
- Preparation for the installation of new hardware
- Extend the training dataset of P11 images for Murko
- Optimize the usage of murko-centering
- X-Ray centering + mesh-scans