MXCuBE meeting

MAX IV MXCuBE Status Report

Ezequiel Panepucci on behalf of the MX-group & the MXCuBE Team at MAX IV

18-19, 2025

MX beamlines at MAX IV

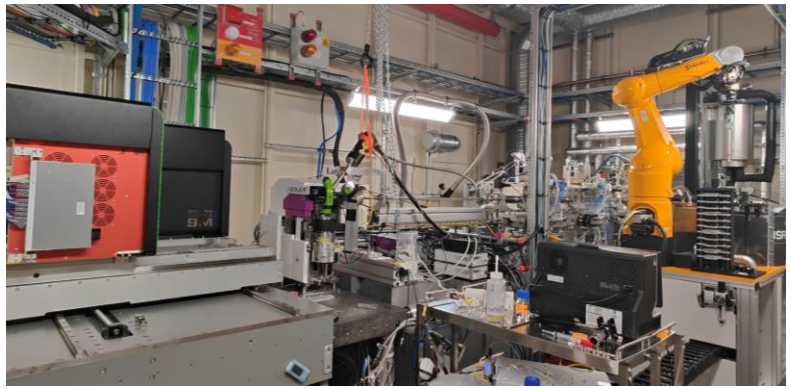
BioMAX

- Tunable Energy (6-24keV)
- hDCM, 10^{13} ph/s, 20x5 µm^2
- Eiger2 XE CdTe 16M
- ISARA
- Amptek fluorescence detector
- REX, Cryojet5, HC-lab

MD3-down

- MiniKappa
- 96-well Plate head
- Single-axis

MicroMAX



- Tunable Energy (5-25keV)
- hDCM, 10^{13} ph/s, now 14x4 µm^2 (1 µm with mirrors)
- MLM, >10^{14} ph/s
- ISARA2
- Cryostream 1000
- Eiger2 X CdTe 9M
- Jungfrau 9M @PSI
- **ns Laser**
- **X-ray Chopper**
- **BCU**
- **Table interferometers**

MD3-up

- Empty head: injectors
- MiniKappa
- 96-well Plate head
- Fixed target large format @ARINAX

Recent developments

- Elmir's got a new job 😀 is leaving in December 😔
- Matheus Bernardi joined the MXCuBE team 😀

MXCuBE**4**

- Standard rotation experiments with sample changer; external users next week µMax
- Auto-loop centring
- Pandabox timing schemes from files, no GUI yet
- Much improved modal for HVE SSX
- Tons of bug fixes, refactoring and rebasing

Plans

BioMAX

- MXCuBE 3 – stays put until v4 matures
- MXCuBE 4 – production VM for users/staff

Priorities:

- xray-centring
- Unattended
- Lure in-house users to v4

MicroMAX

- Robust validation on new generic forms
- (TR-)SSX features at MicroMAX in production

Global

- Converge to single code base
- Robust handling of various experiment types on the same code base

MXCuBE deployments

BioMAX

Prod 1 99%
- MXCuBE3 v3.0

Prod 2
- mxcubeweb **4.566.0** **23.10.2025**
- mxcubecore **1.405.0** **23.10.2025**

MicroMAX

Prod 1 99%
- mxcubeweb **4.258.0** **17.01.2025**
- mxcubecore **1.206.0** **20.01.2025**

Prod 2
- mxcubeweb **4.566.0** **23.10.2025**
- mxcubecore **1.405.0** **23.10.2025**

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Global Phasing Ltd.

- Rasmus Fogh

MXCuBE Collaboration