Meeting minutes PSF MX User Meeting on ZOOM 2024-01-25

Time: 4 pm Thursday 25 January 2024 Zoom: https://ki-se.zoom.us/j/2552303941

Participants: Martin Moche, Dean Derbyshire, and Robert Schnell

§1 INFO: Next PSF MX User Meeting

Thursday 15 February 2024 starting 16:00.

§2 DECISION: Assign experimentalists

Light source	Beamline	Date	Duration	Start	Experimentalists
MAX IV	BioMAX	2024-02-02	24	08:00	Contact Martin asap or cancel
Diamond	B21 mail-in SAXS	2024-02-13	24	09:00	Contact Martin asap or cancel

Table 1. See also http://ki.se/en/mbb/psf-mx.

Please share sample information (UniprotID, heavy atoms, expression host) and approximate number of crystals asap after meeting.

§3 INFO: PSF MX updates

PSF MX shared three applications in response to SciLifeLab Technology survey 2023. Two of them were selected for International Evaluation of SciLifeLab in 2024 and after some coordination with a few other SciLifeLab Technology survey applicants, we are now preparing reports for the international review committee as:

- 1. PReSTO towards NBIS SciLifeLab
 - a. SciLifeLab and LiU fund PReSTO activities.
- 2. Adding MX 3D structure determination services to ISB (Integrated Structural Biology) platform.
 - a. PSF in Stockholm, LP3 in Lund, and XRDF in Umeå will join forces to add MX 3D structure determination services to SciLifeLab ISB platform.

The third application regarding hosting a SONICC imager for microcrystal detection with applications towards SSX at MicroMAX and microED will be transformed into a SciLifeLab instrument application.

§4 INFO: MicroMAX now OPEN for SSX (Serial Synchrotron X-ray crystallography)

At <u>MicroMAX</u> the efficient Jungfrau detector contains a GPU unit called JungFrauJoch that indexes all spots on diffraction containing images, filters away dark images thereby keeping data volumes lower and prepare for CrystFEL data processing – see attached. SSX enables time-resolved X-ray crystallography at biological time scales complementing XFEL – see SSX-Pearson.pdf (attached)

§4 INFO: PSF in iLab - https://karolinska.corefacilities.org/service_center/show_external/3663

- ✓ Please register your research group, students, postdocs, and project numbers in iLab.
- ✓ Visit https://staff.ki.se/the-cfm-project-and-ilab for guidance.
- ✓ Ask cfm-support@ki.se for help.