MXCuBE at Sirius

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Beamline Software Group (SOL)

Brazilian Synchrotron Light Source (Sirius/LNLS)

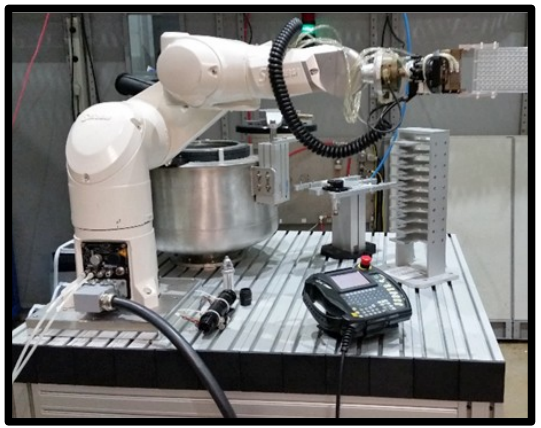
Online MXCuBE & ISPyB Meeting hosted by EMBL-HH and DESY

18 - 19 May, 2021

MANACÁ Beamline (MX)

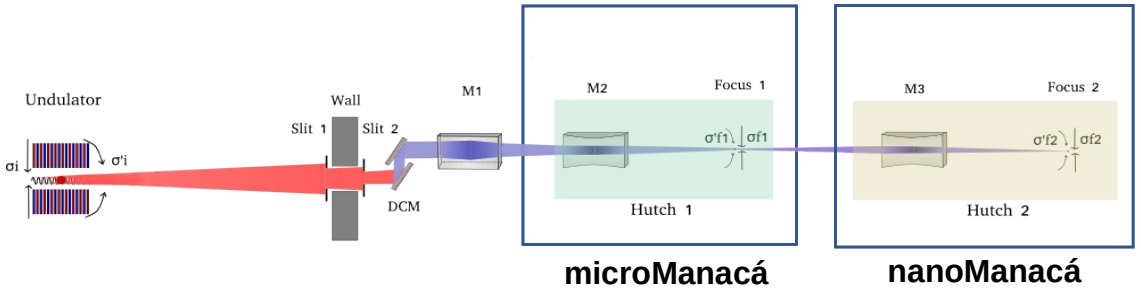
2021

- Feb – Mar: Sample changer commissioning
- April: Users shifts begin



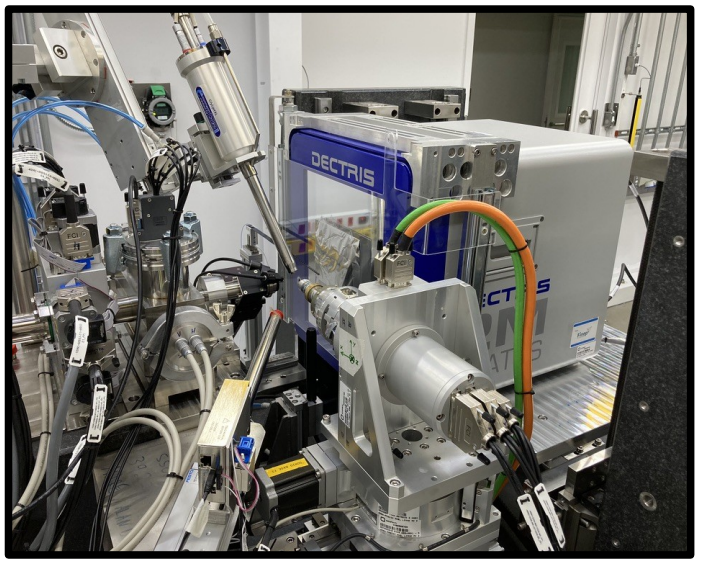
Operation through MXCuBE3

MANACÁ Beamline (MX)



WIP:

- Energy control and scan
- RT and SSX

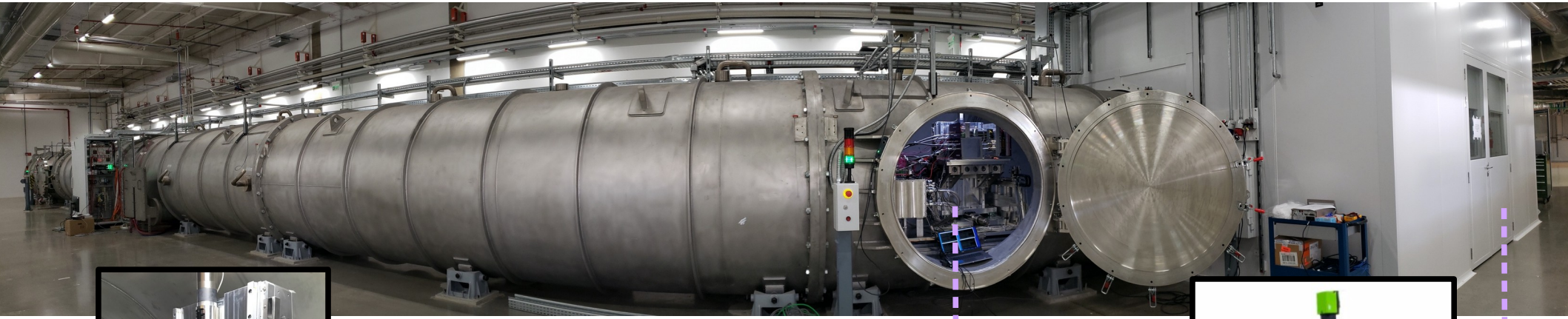


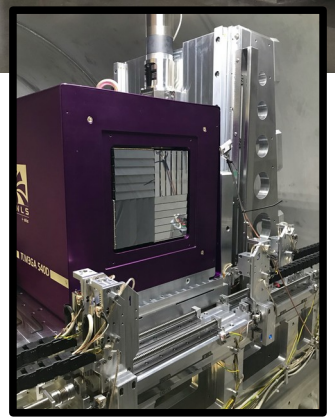
Endstation microManacá

***Fixed** targed pins (first tests)*
*and **microfluidics** sample holders*
(in collab with Gothenburg University)

CATERETÊ Beamline (Coherent X-Ray Scattering)

- CXDI, XPCS, SAXS



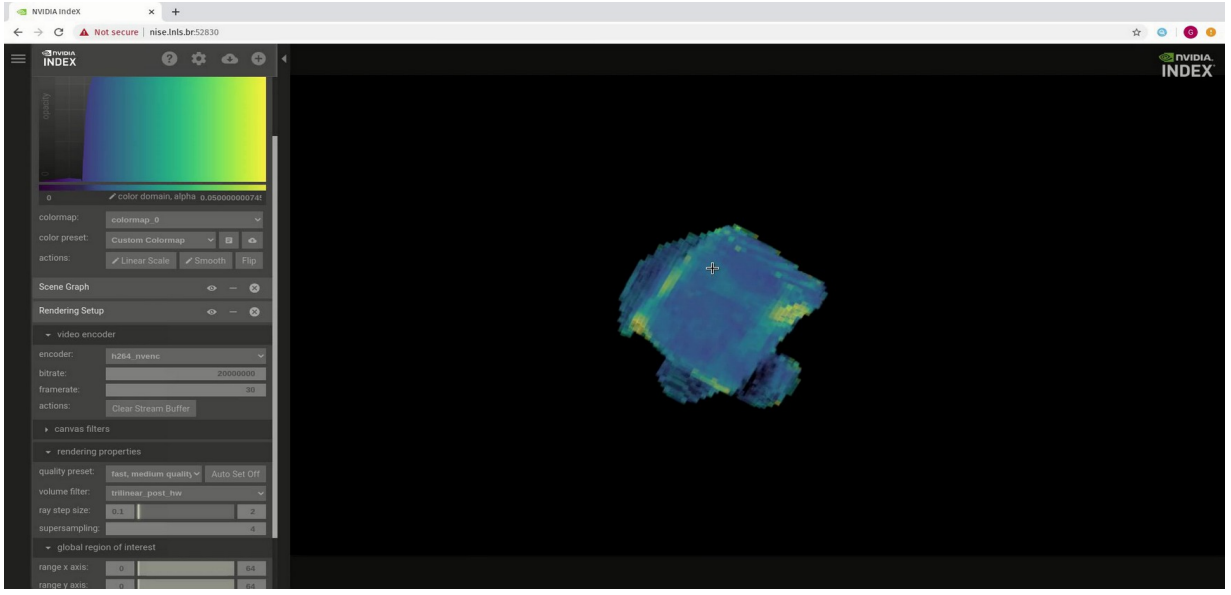


Pi-Mega detector
(in-house development)

Sample stage

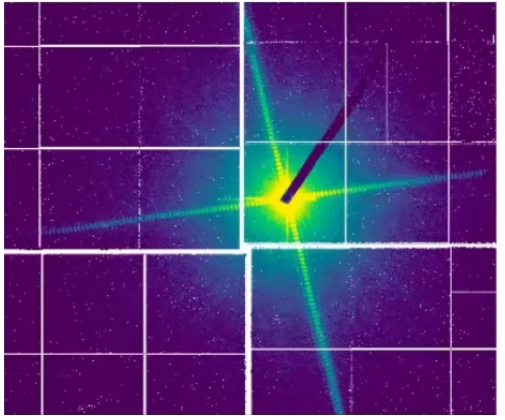
CATERETÊ Beamline

- April: 3D reconstruction of a 6 um zeolite (CDI)



Visualization in Nvidia IndeX (250 nm voxel)

Zeolite sample



*Sample to det distance: **27m***
*Energy: **9 keV***
*Exp. time: **5 s***
*Total time: **2 h***

MXCuBE 3

Done

- ✔ Site-specific code merged into HardwareRepository master(GitHub)
  - ✔ LNLS classes, **EPICS classes**
- ✔ Base version updated to follow MXCuBE3 master (Jan 7th version)

- ✔ Sample changer integrated
- ✔ Login by user + list of proposals of the day
- ✔ Testing **Podman for rootless containers**, for permission management (e.g.: storage)

MXCuBE 3

Next

- Manacá: Remote access
- Cateretê: Return to the development of a initial version
  - Sample centring
- Review and upload more LNLS / EPICS code

Thank you!

Questions? :)