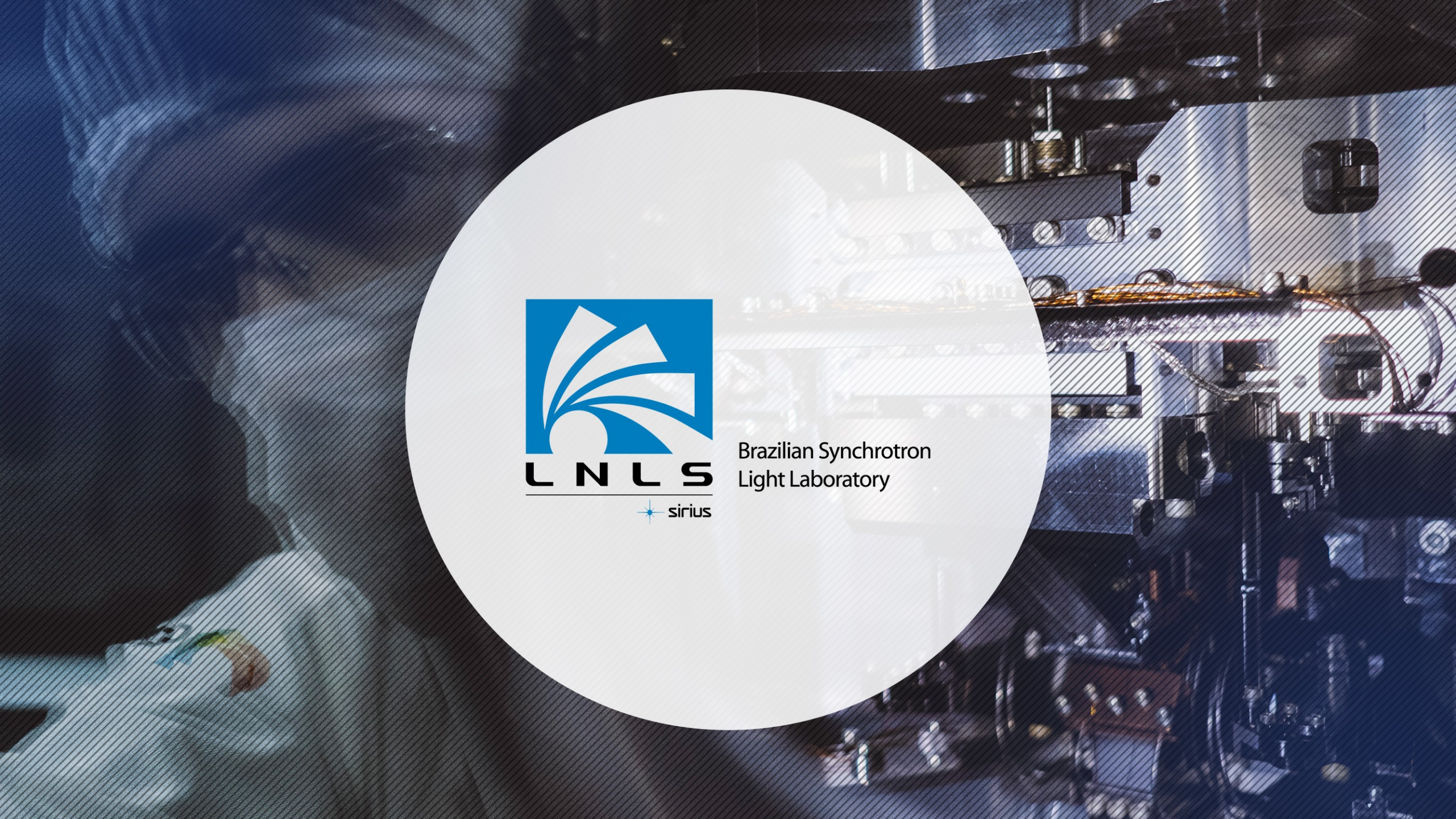

LNLS
sirius
Brazilian Synchrotron
Light Laboratory

MXCuBE at Sirius

Letícia Garcez Capovilla

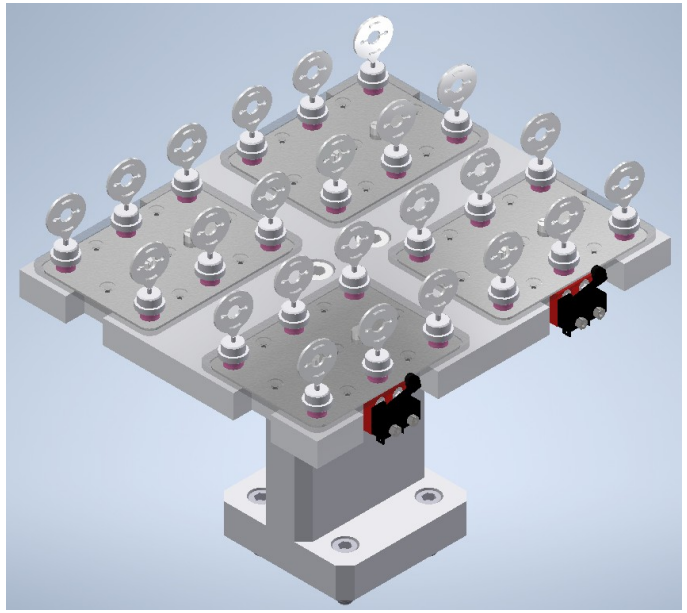
Control Software Group (SwC)
Brazilian Synchrotron Light Laboratory (Sirius/LNLS)

Joint MXCuBE & ISPyB Meeting @ European Synchrotron Radiaton Facility (ESRF)
08 December, 2022

MXCuBE 3 at Manacá beamline

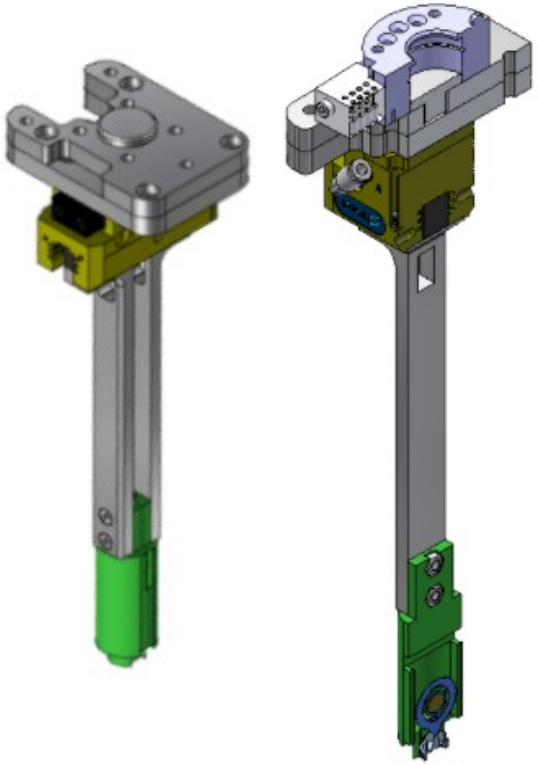
Done

- Sample changer
  - Sample holder's smart magnet signal for failure detection
  - Tool detection
  - Queues for room temperature and/or cryogenic sample pucks management



Sample holder

Sample

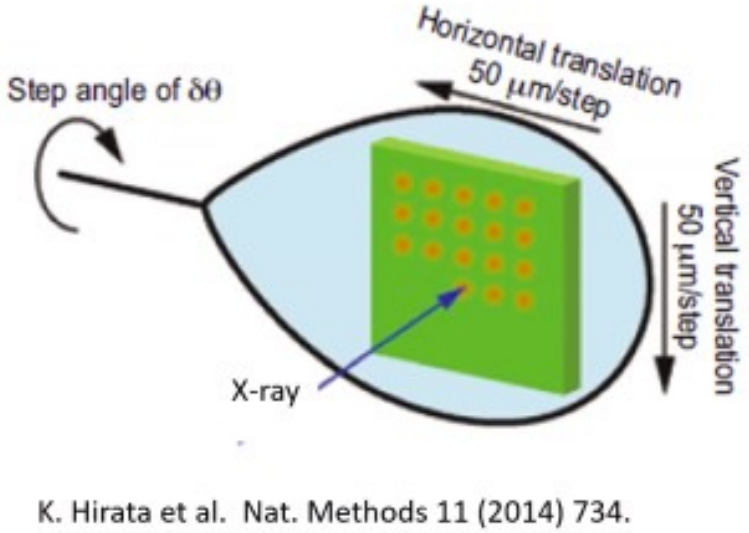


Sample changer tools

MXCuBE 3 at Manacá beamline

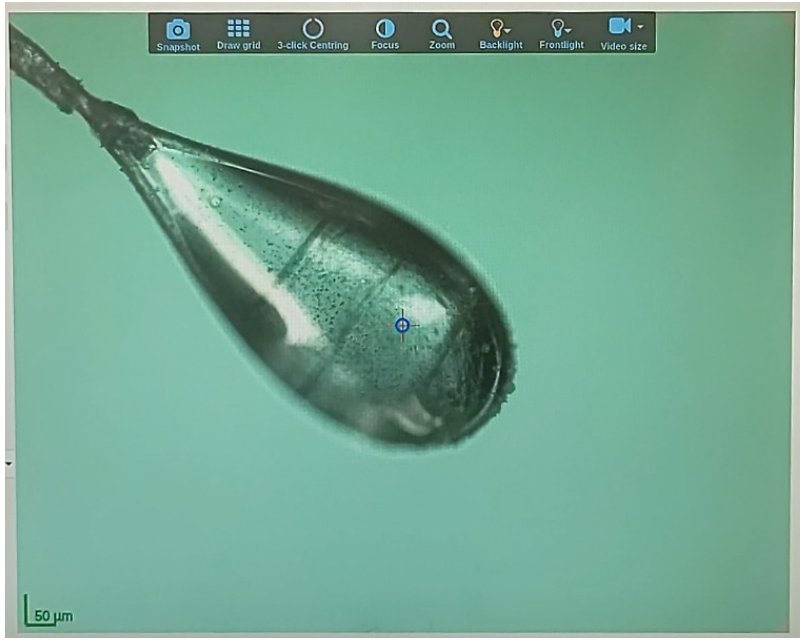
Done

- Grid scan
  - With oscillation of ± 0.5 deg./cell on omega
- LIMS access updates
  - Better connection closing
  - Adjustments for private companies' research proposals
- Flyscan for microcrystallography for EMA beamline



K. Hirata et al. Nat. Methods 11 (2014) 734.

Grid scan method



Sample view

MXCuBE 3

WIP

- More EPICS classes
  - Integrated step, fly and mesh scan procedures instead of Py4syn/scan-utils packages
  - Integrated Pilatus detector and TATU (Time And Trigger Unit)
- Remote access improvement continues…
  - Replacement of virtual machines

To-Do List

- Braggy
- MXCuBE core and MXCuBE 3 updates
- Bluesky/Ophyd integration with MXCuBE

Acknowledgement

- **Beamlines groups**
- **Support groups**
- **SwC group**
- **MXCuBE community**

Thank you all!