

LImA at MLZ (FRM II, Garching) Experiences of usage with neutrons

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- „User“ of LImA

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- Tango LImA Server

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- Currently using version 1.9.24 (test for 1.10.X are running)

LImA at MLZ

- Cameras in use

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- Andor IKON-L



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Lima at MLZ

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- ZWO (different models)



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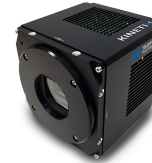
- Andor IKON-L
- Andor Neo
- ZWO (different models)
- QHYCCD (in progress, different models)



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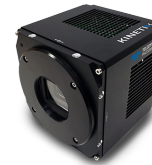
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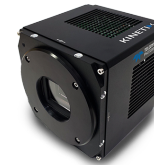
- Applications

- Single picture mode

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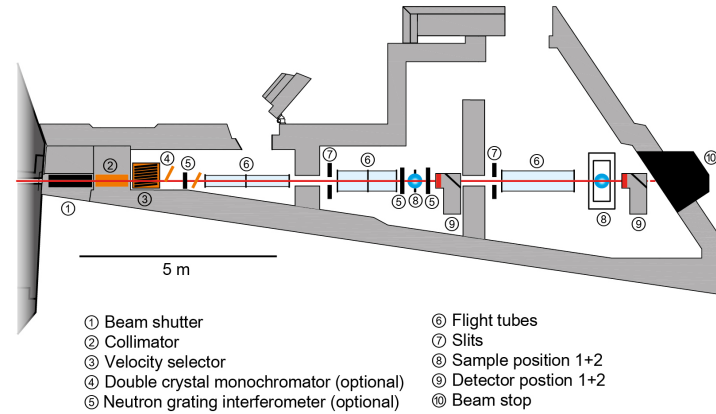
- Single picture mode
- High speed picture mode (Andor Neo, Teledyne Kinetix) → TIFF file writing



LimA at MLZ

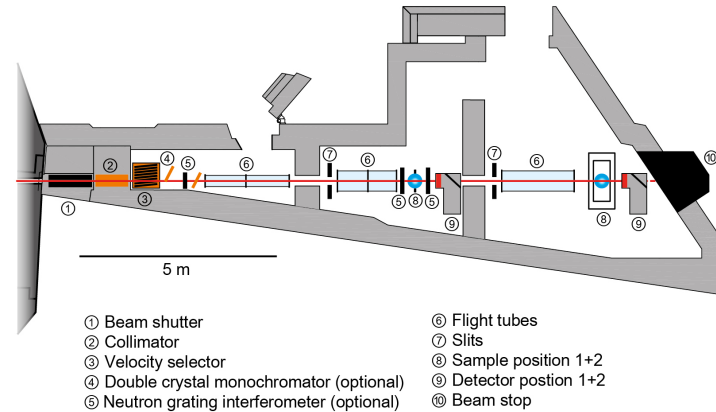
LImA at MLZ

- 3 Tomography instrument



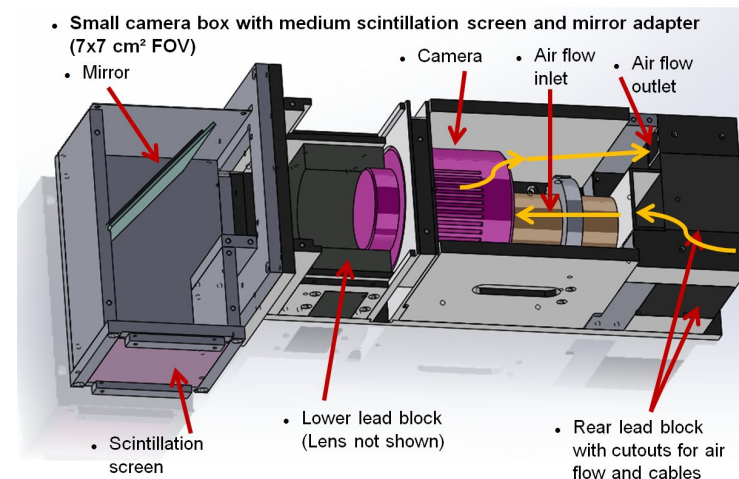
LImA at MLZ

- 3 Tomography instrument



- Modular and portable setup

- Camera box (astronomy camera)
- Sample table
- Motor controller
- Raspberry Pi and Laptop/VirtualBox-Image



LimA at MLZ

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- Debian 11/12 as OS




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- Installation from sources
 - Apply patches
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- LImA Tango server
 - Start/Stop via systemd
 - Configuration of Tango server and devices via tango_admin tool in systemd units
 - Different cameras on a single computer
 - Loading/Unloading of kernel modules in systemd unit

LImA at MLZ

- Contributions to LImA

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 - Drivers for ZWO and QHYCCD cameras
 - Contributions for FITS file writing
 - Bug fixes

LIImA at MLZ

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 - Find out the best way to use of Tango attributes/commands and/or devices

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