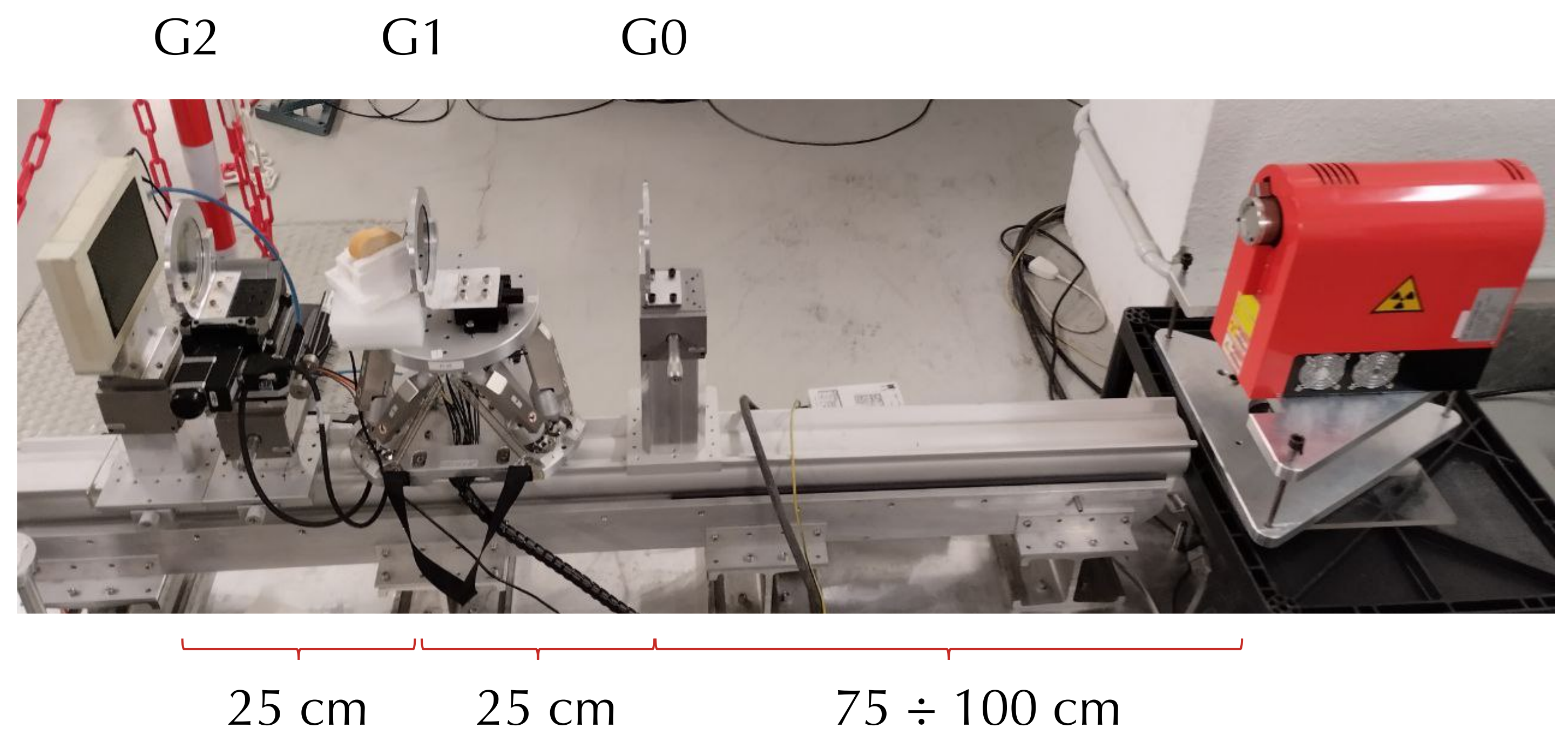
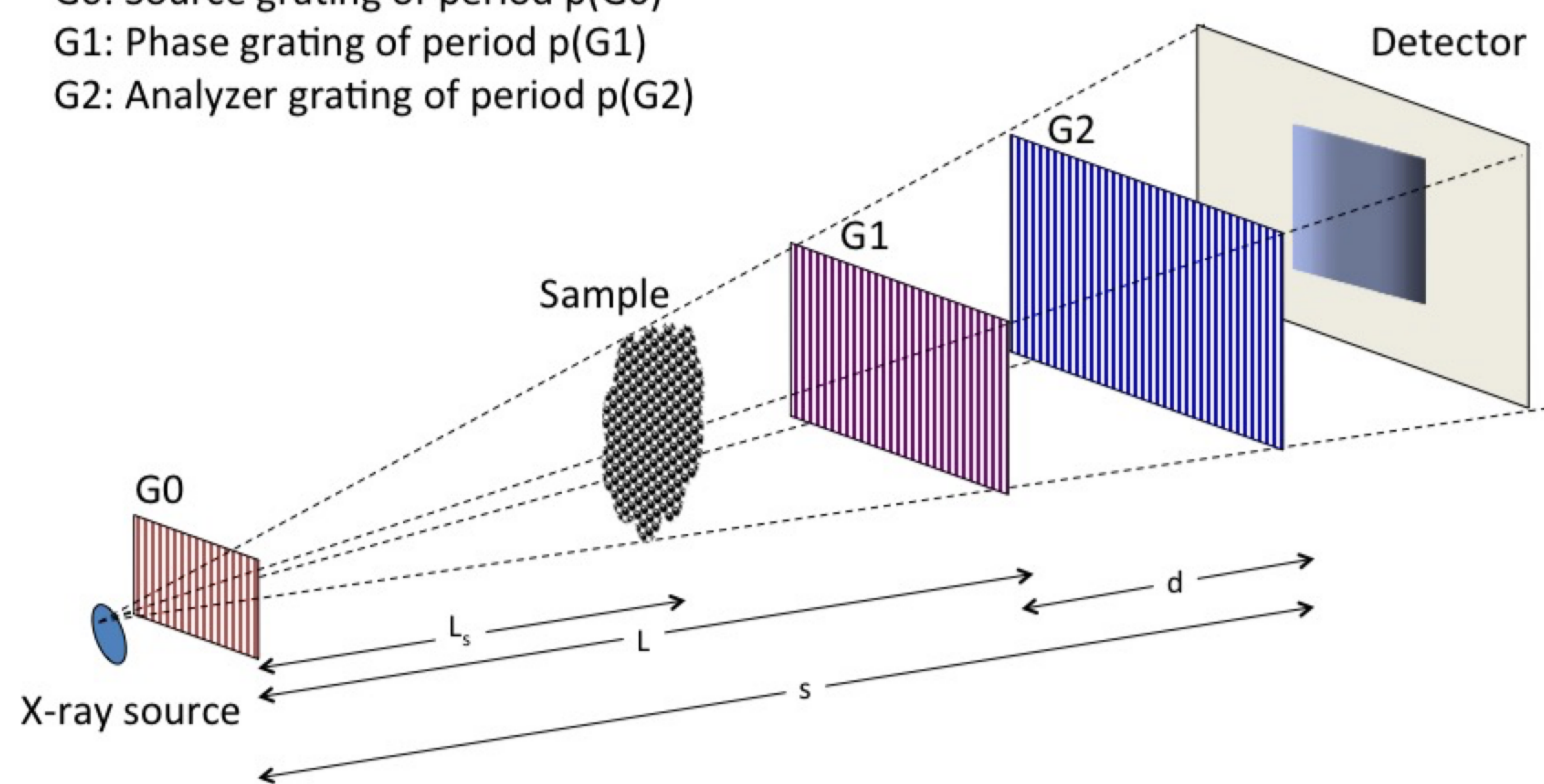


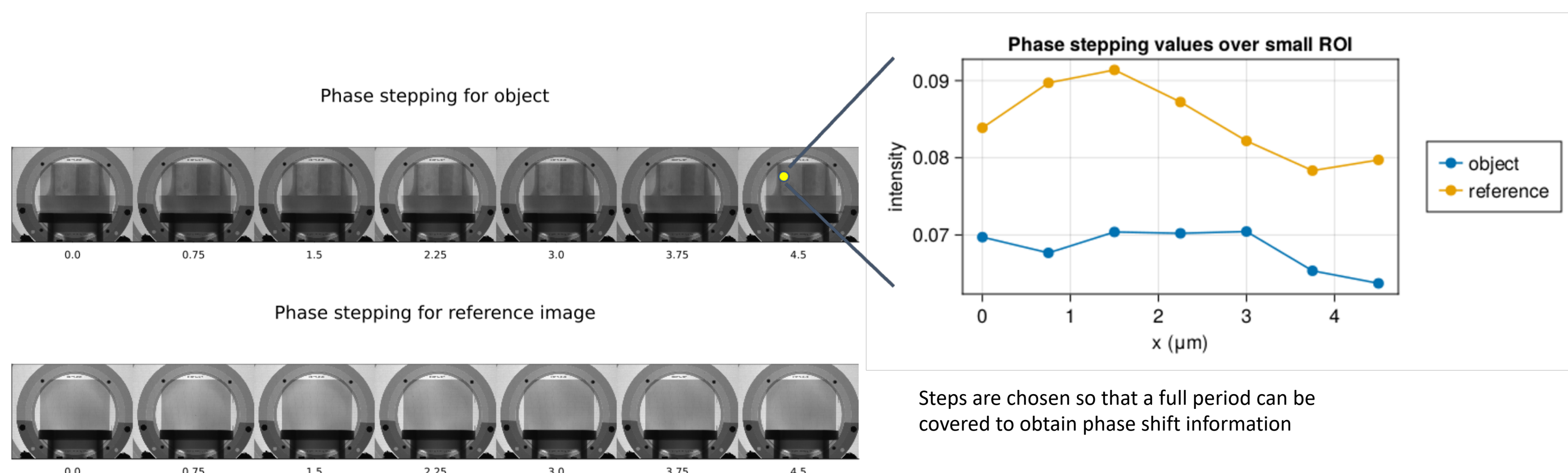
Phase-Contrast Computed Tomography with grating interferometry High-resolution (5 μm) imaging of tissue samples

G0: Source grating of period $p(G0)$
G1: Phase grating of period $p(G1)$
G2: Analyzer grating of period $p(G2)$

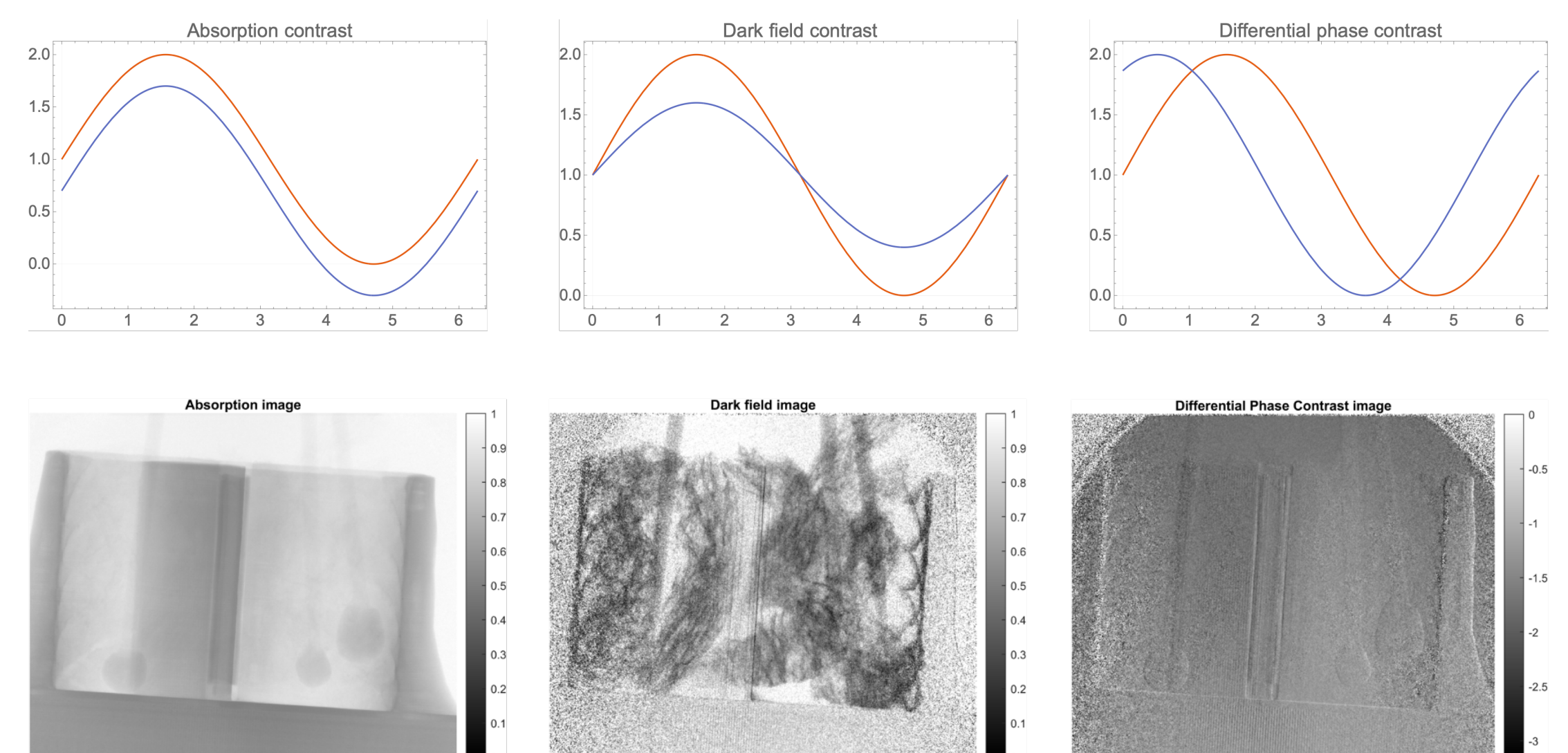


Grating-based interferometer

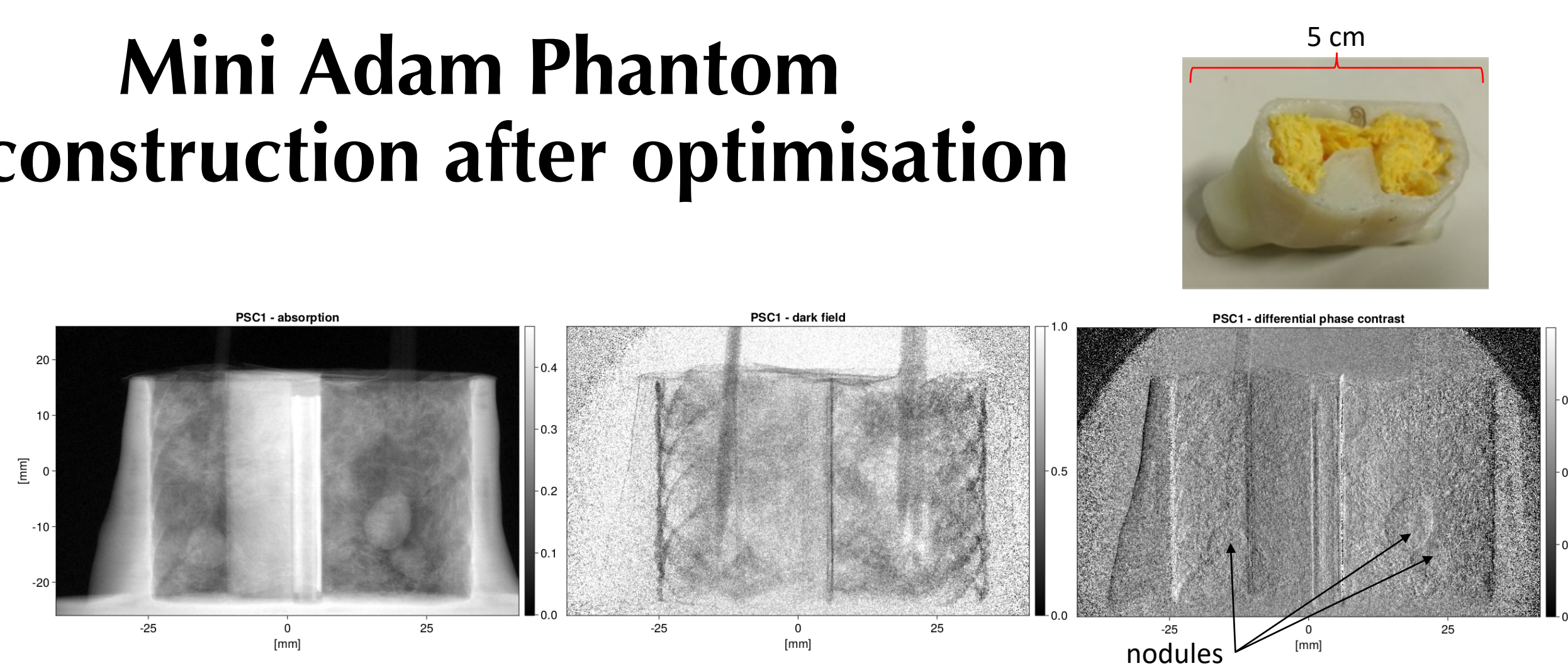
Acquisition technique: Phase-stepping



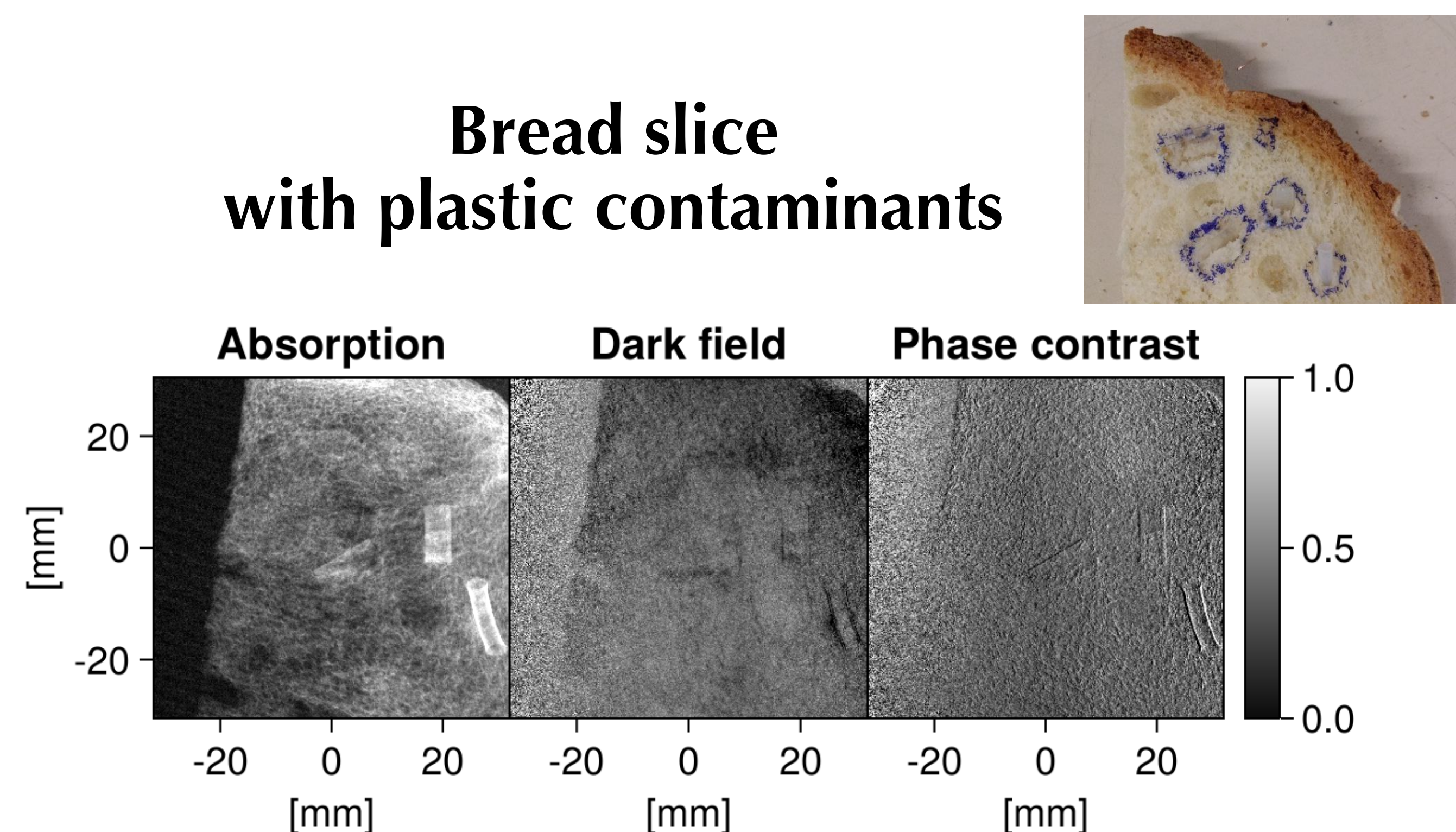
Reconstruction: absorption, dark-field, phase-contrast



Mini Adam Phantom Reconstruction after optimisation



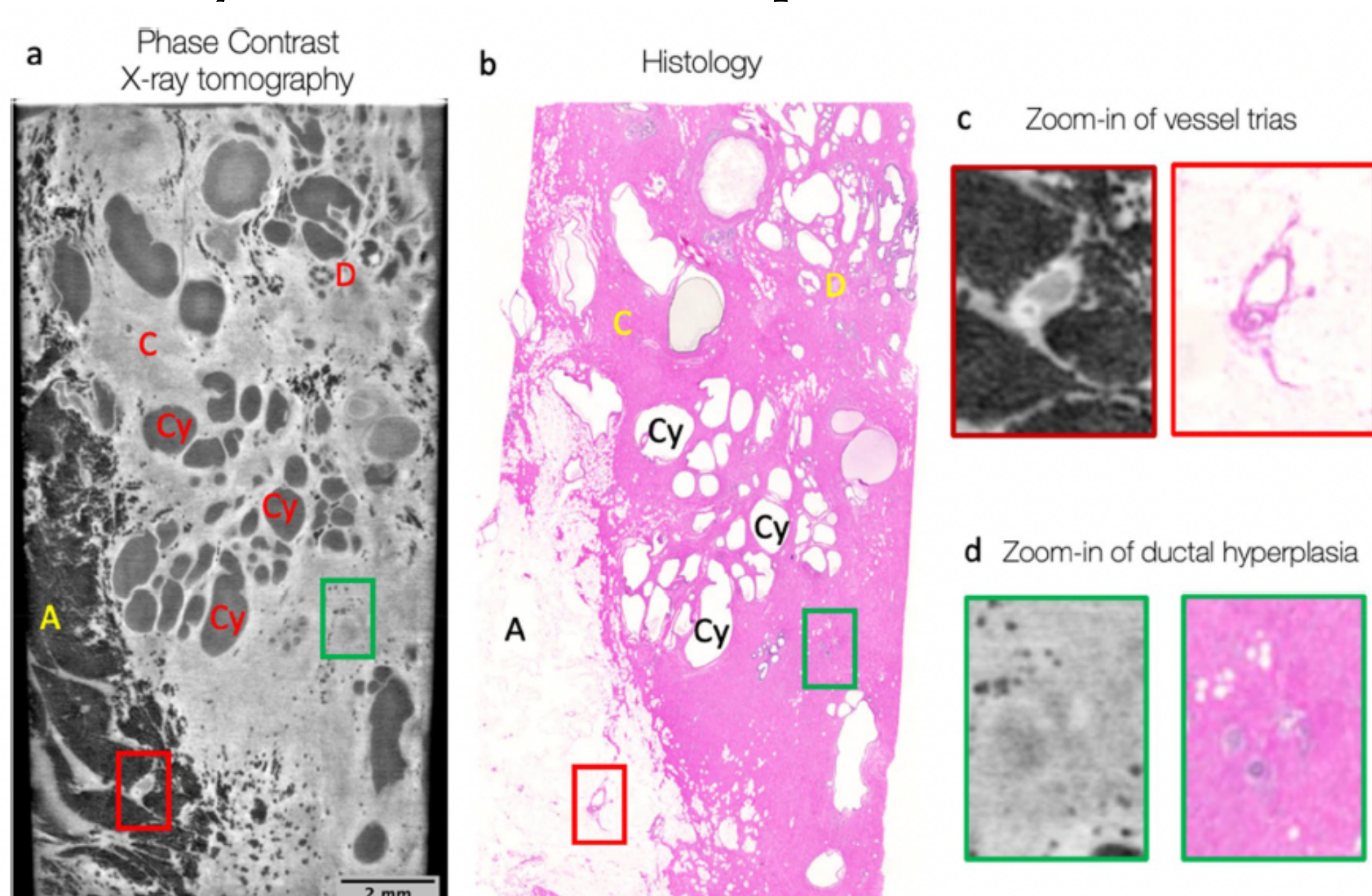
Bread slice with plastic contaminants



VI_HI project: 2024-2026

- Year 1: design & construction
- Year 2: commissioning & optimization
- Year 3: tissue sample analysis

A very recent example of virtual histology



Voxel size: 5.57 μm
Resolution: 14 μm
Acquisition time: 60 (10) s/image
Projections: 777
Total acquisition time: 65 (11) h

Master Thesis:

- Design and Construction of the VI_HI Phase-Contrast Imaging CT scanner
- Optimisation of Data Acquisition Protocols for high-resolution scans
- Optimisation of CT reconstruction algorithms for Virtual Histology Applications