

SLS 2.0: Challenges, Solutions, and New Opportunities

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Amphithéâtre SOLEIL

The Swiss Light Source (SLS) has recently completed its ambitious upgrade. SLS 2.0 involved the replacement of the storage ring with a state-of-the-art multi-bend achromat lattice, together with extensive upgrades of accelerator systems, beamline optics, detectors, and experimental instrumentation. The project posed substantial technical and organizational challenges, requiring the successful integration of new technologies within an existing infrastructure while minimizing disruption to the user community.

This talk will review the implementation of SLS 2.0, the key challenges encountered during the upgrade, and the solutions developed during installation and commissioning. The new facility has demonstrated the expected gains in brightness, coherence, and beam stability, providing a transformative platform for synchrotron-based research. Following a successful commissioning phase, user operations are gradually resuming across the full suite of beamlines, and the scientific community has already responded strongly to the renewed call for proposals.

Particular attention will be given to the opportunities that the enhanced source performance creates for advanced X-ray imaging and microscopy. Using the cSAXS and TOMCAT beamlines as examples, the talk will illustrate how the increased coherent flux and improved beam quality translate into faster data acquisition, higher spatial resolution, greater sensitivity, and new multimodal imaging capabilities, enabling experiments that were previously impractical or beyond reach.



Pause café

Formalités d'entrée : accès libre dans l'amphi du pavillon d'Accueil.

Si la manifestation a lieu dans le Grand Amphi SOLEIL du Bâtiment Central merci de vous munir d'une pièce d'identité (à échanger à l'accueil contre un badge d'accès).

SYNCHROTRON SOLEIL

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