

The ALBA II Upgrade and Its Impact on Beamlines, Optics, and Instrumentation

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Amphitheatre SOLEIL

Since the start of user operation in 2012, ALBA has expanded its beamline portfolio, built a strong user community, and established solid scientific output. The facility is now moving to a fourth-generation source with the ALBA II upgrade.

This seminar will present the project: replacement of the storage ring with a low-emittance multi-bend achromat, upgrade of existing beamlines, and construction of new ones, including two long nanoprobe beamlines for coherent imaging. The upgrade is funded through this decade, with a planned shutdown in 2030 and restart as ALBA II in 2032. The beamline program will ensure continuity of the current portfolio after the shutdown and will extend capabilities to exploit the higher brilliance, in particular for coherent imaging and for microfocus microdiffraction.

As in other facilities, the upgrade sets clear technical constraints for beamlines, from tighter stability requirements to the increased complexity of data handling for advanced imaging techniques. This talk will focus on optics, metrology, mechanics, and nanopositioning. Building on ALBA's experience in our latest beamlines we are moving towards tighter integration of wavefront-preserving optics, metrology, positioning systems, and feedback to reach nanometre-level performance.



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 ou dans une salle de réunion, merci de vous munir d'une pièce d'identité (à échanger à l'accueil contre un badge d'accès).

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