

Vector Magnetic X-ray Tomography : a tool for research on 3D magnetism

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Lundi 21 septembre 2026 – 14h00
Amphithéâtre SOLEIL

The development of nanomagnetism in the last three decades has been based on the utilization of the properties of two dimensional magnetic media consisting in multilayer stacks of magnetic and non-magnetic materials.

In recent years, the discovery of chiral magnetism, of new magnetic configurations of potential practical interest as skyrmions and also the emergence of new methods for fabricating nanostructures, has stimulated research aiming to expand nanomagnetism to three dimensional systems.

Consequently, experimental techniques allowing to visualize the interior of magnetic systems as are internal domain walls or magnetic singularities are desirable. X ray tomography is a natural choice provided that is adapted to image the three spatial components of the magnetization instead of a single scalar quantity as in usual tomography.

The description of the technique as used at the soft X ray microscopy beamline at ALBA will be illustrated and representative examples will be presented.



Pause café

SEMINAIRE

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).

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