Réunions scientifiques

Séminaires

Séminaire SOLEIL

Study of magnetization dynamics using pulsed X-rays

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Invité par Nicolas JAOUEN

Lundi 3 septembre à 14h00
Grand Amphi SOLEIL

Since the discovery of the ultrafast magnetization dynamics triggered by femtosecond lasers [1], many studies have been devoted to understand this phenomenon. The most used techniques have been based on the time-resolved magneto-optical Kerr effect (MOKE) using the same kind of lasers in a pump-probe scheme. More recently, the natural pulsed structure of X-rays from synchrotrons and X-FEL sources have opened multiple possibilities of characterization by using X-ray spectroscopy, microscopy and scattering. Distinction between orbital and spin magnetic moments, element selectivity, surface selectivity or working on a reciprocal space are some of the advantages of X-rays that lack the laser probes.

In this presentation I will show some of our results in pump-probe time-resolved X-ray magnetic circular dichroism spectroscopy (XMCD), time-resolved X-ray photoelectron emission microscopy and (X-PEEM) and time-resolved X-ray resonant magnetic scattering (XRMS) measurements in magnetic thin films in an attempt to study the ultrafast magnetization dynamics from different points of view.

[1] Beaurepaire, E., Merle J. C., et al. Physical Review Letters 76, 4250-4253 (1996).

Ce séminaire sera suivi d'une 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).*

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