

X-ray Standing Wave Analysis : The Challenge of Complex Structures

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Invité par Paul DUMAS

**Vendredi 2 février à 15h00
Amphi du Bât. Accueil Soleil**

X-ray Standing Wave Analysis, XSW, and its Normal Incidence version, NIXSW, are powerful surface structural techniques which can be applied to bulk, interface and surface structures, depending on the detection method used (photons or charged particles).

For surface and interface structural analysis the principle strengths over other surface structural methods are very high quality data with a positional accuracy of ± 0.01 Å which is model independent (i.e. any proposed structure has to conform to the measurement, the measurements cannot be affected by the proposed model), combined with relatively fast data capture. However, XSW has an Achilles heel, because the data is sparse ; at present the number of different XSW measurements from a system is limited to a few dozen, which necessarily limits the complexity of the surfaces to which it can be applied.

The present capabilities of XSW will be reviewed, and new ways of increasing the information content, and of capturing data on ns timescales, will be discussed. Many of these ideas will be implemented on the Surface and Interface Structural Analysis (SISA) beamline on Diamond, in 2011.

Formalités d'entrée : accès libre dans l'amphi du Pavillon d'Accueil. Si la manifestation a lieu dans le Grand Amphi Soleil du Batiment Central, merci de vous munir d'une pièce d'identité et de prévenir le secrétariat en charge de l'événement.

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