

Time-resolved nonlinear signals for X-ray spectroscopy and diffraction

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Abstract :

Recent progresses in X-ray sources allow to envision new experiments involving nonlinear and time-resolved interaction. I will discuss how spectroscopic signals, heterodyne or homodyne detected, can be introduced in an unified manner and present various signals that we have been proposing. These include, for example, X-ray circular dichroism and Raman optical activity of chiral molecules, time-resolved X-ray circular dichroism in formamide, time-resolved X-ray diffraction.