

Studies of structural dynamics in solids using time resolved X-ray diffraction

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Studies of the structural dynamics of solids can improve our understanding of atomic motion in materials, and may thus help in the manufacture of new devices or the development of materials with novel structures and properties. Ultrashort laser pulses can deliver high energies, and trigger lattice motion in solids such as vibrations and disordering, which can be monitored using time-resolved X-ray diffraction. In my talk, I will present the results from our experiment campaigns at beamline ID09 at ESRF and the recent results from the experiments that were carried out at the FemtoMAX beamline at the MAX IV Laboratory.