

Non-equilibrium dynamics of complex materials

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External stimuli can drive materials far out of equilibrium and provide opportunities to develop novel means to (i) analyse excitations close to thermal equilibrium and (ii) to explore non-equilibrium states with specific properties. In this talk several examples like the dissipation of excess energy in a cuprate superconductor, the dynamics of a photo-induced structural transition of the In/Si(111) surface reconstruction from (8x2) to (4x1), and non-uniform spindynamics driven by photo-excited spin currents will be discussed.