



Seminar/Talk

New Physics in Driven Quantum Materials

Andrea Cavalleri

Max Planck Institute for the Structure and Dynamics of Matter

Host: Zhanybek Alpichshev

I will discuss how coherent electromagnetic radiation at Tera-Hertz and mid-infrared frequencies can be used to manipulate complex solids. As collective excitations are driven coherently and nonlinearly, new types of interactions in otherwise virtually uncoupled normal modes of the material are activated. These drives give rise to non-thermal states with unconventional properties, and sometimes with emergent order under a drive. Interesting examples involve the nonlinear control of the crystal lattice, used to induce magnetic order, ferroelectricity and non-equilibrium superconductivity at high temperatures.

Tuesday, May 24, 2022 10:00am - 11:00am

Heinzel Seminar Room, Office Building West



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: <https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.