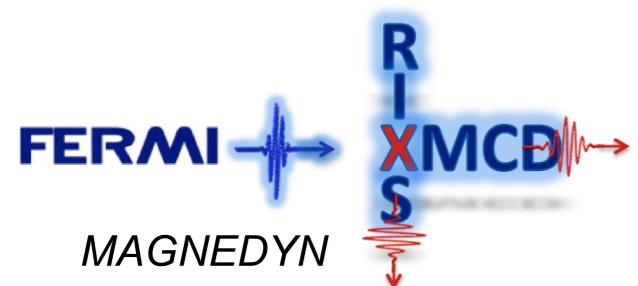


Ultrafast Optic/Magnetic Phase Control of Matter @FERMI



MagneDYN group @FERMI



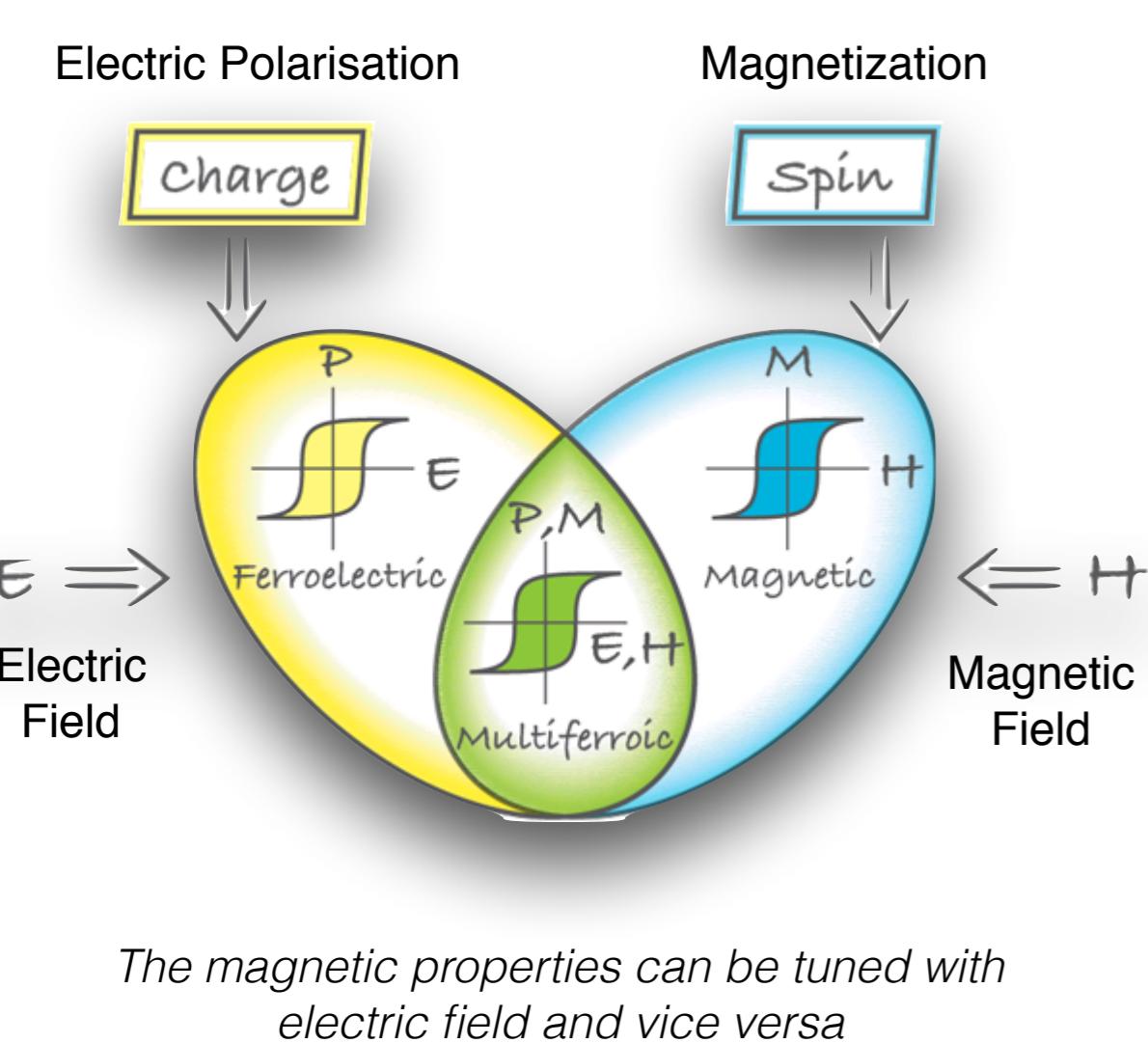
has developed the **MagneDYN FEL beamline**, a state-of-the-art instrument for out-of-equilibrium magneto-dynamical spectroscopies (XMCD, MOKE) and resonant inelastic soft x-ray scattering (RIXS) (Sci. Reports 6 38796-2016). We have recently initiated a novel research program focused on **emergent magnetic phases in complex system** and **phase change nano materials** (Sci. Reports 6 22353-2016).

PhD positions

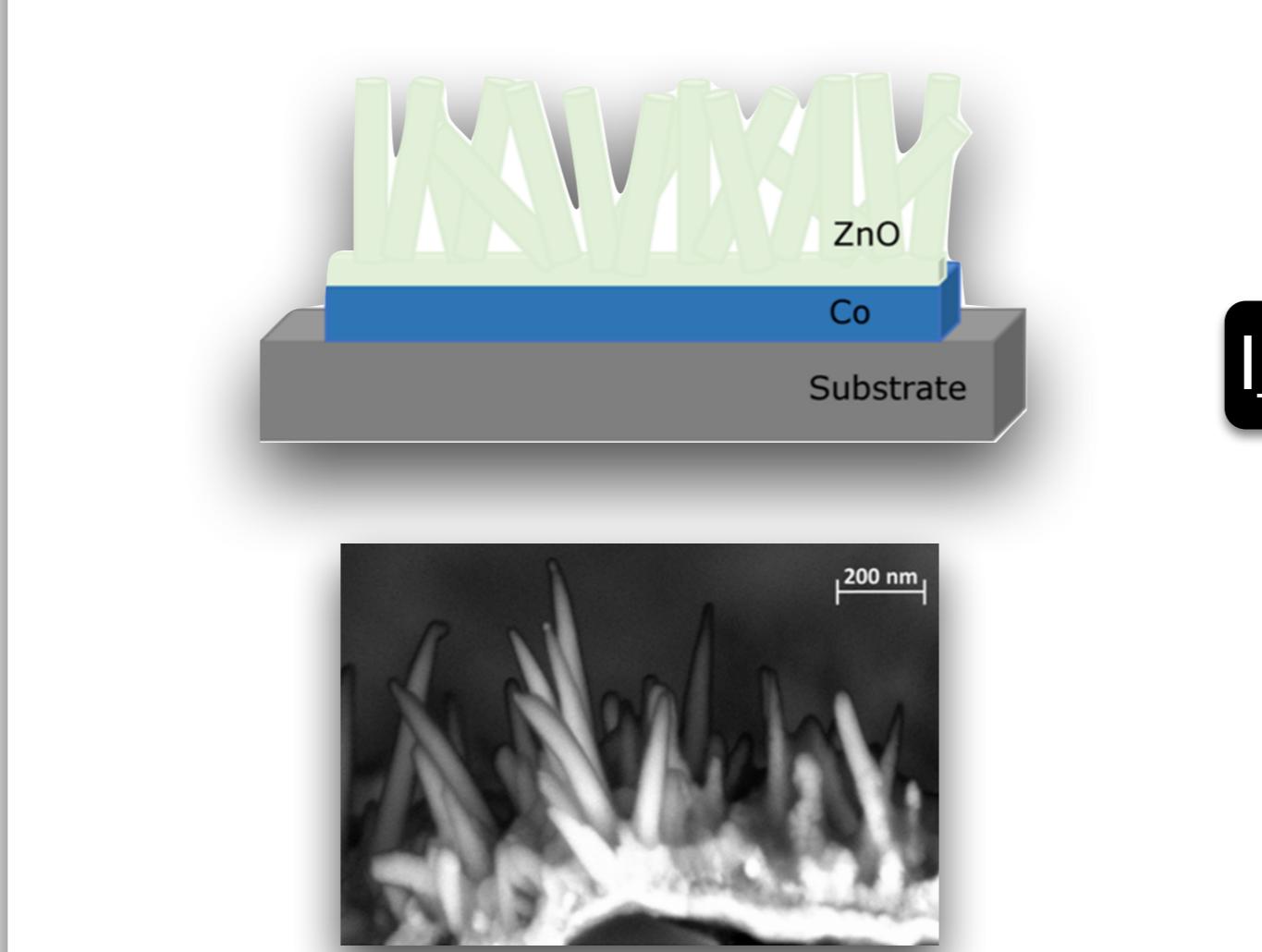
are available for well motivated candidates with a strong interest in experimental physics to join our research program on **ultrafast optical and magnetic phase transitions** in complex materials by means of Free Electron Laser spectroscopies.

For further information please do not hesitate to contact us at the addresses indicated below.

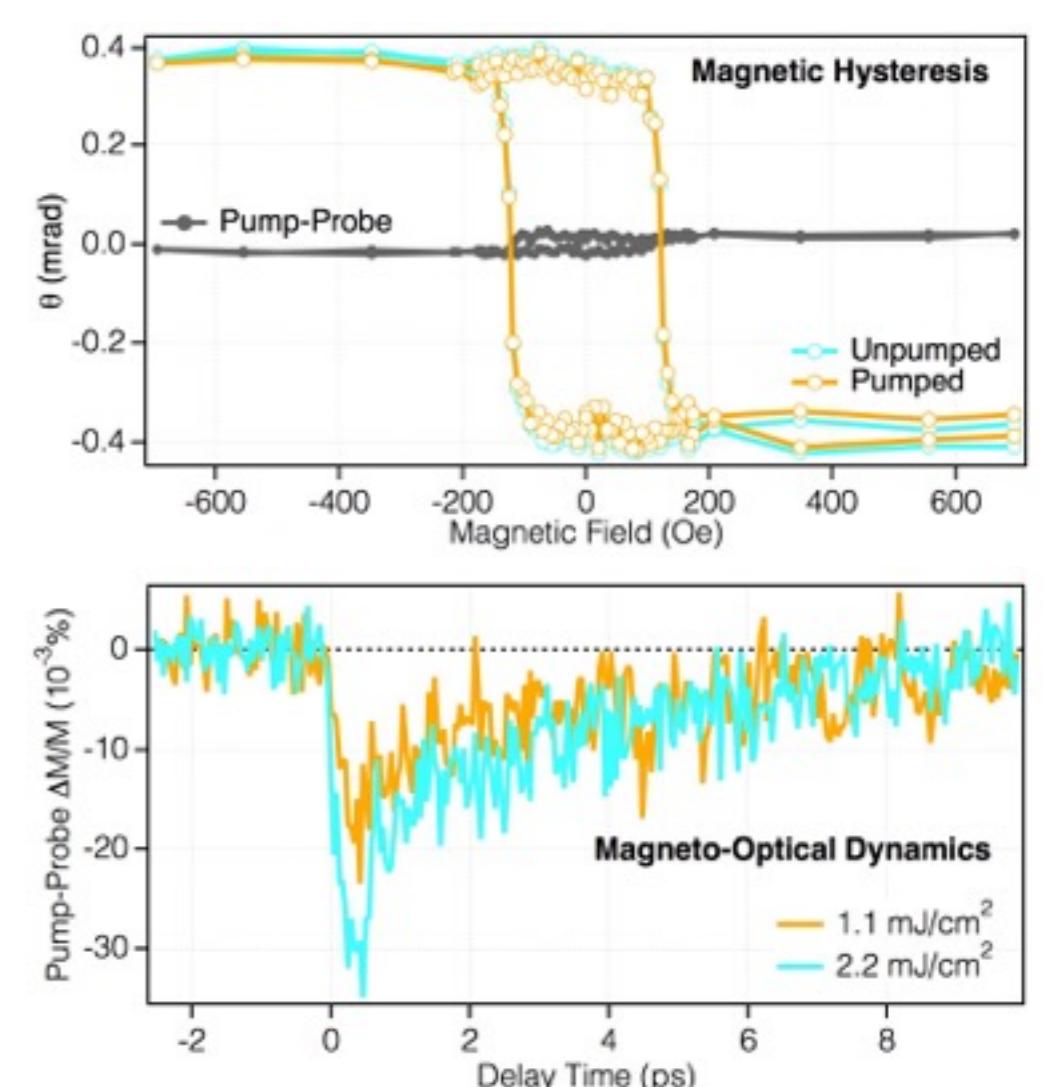
Reversible Magnetic Phase Switching



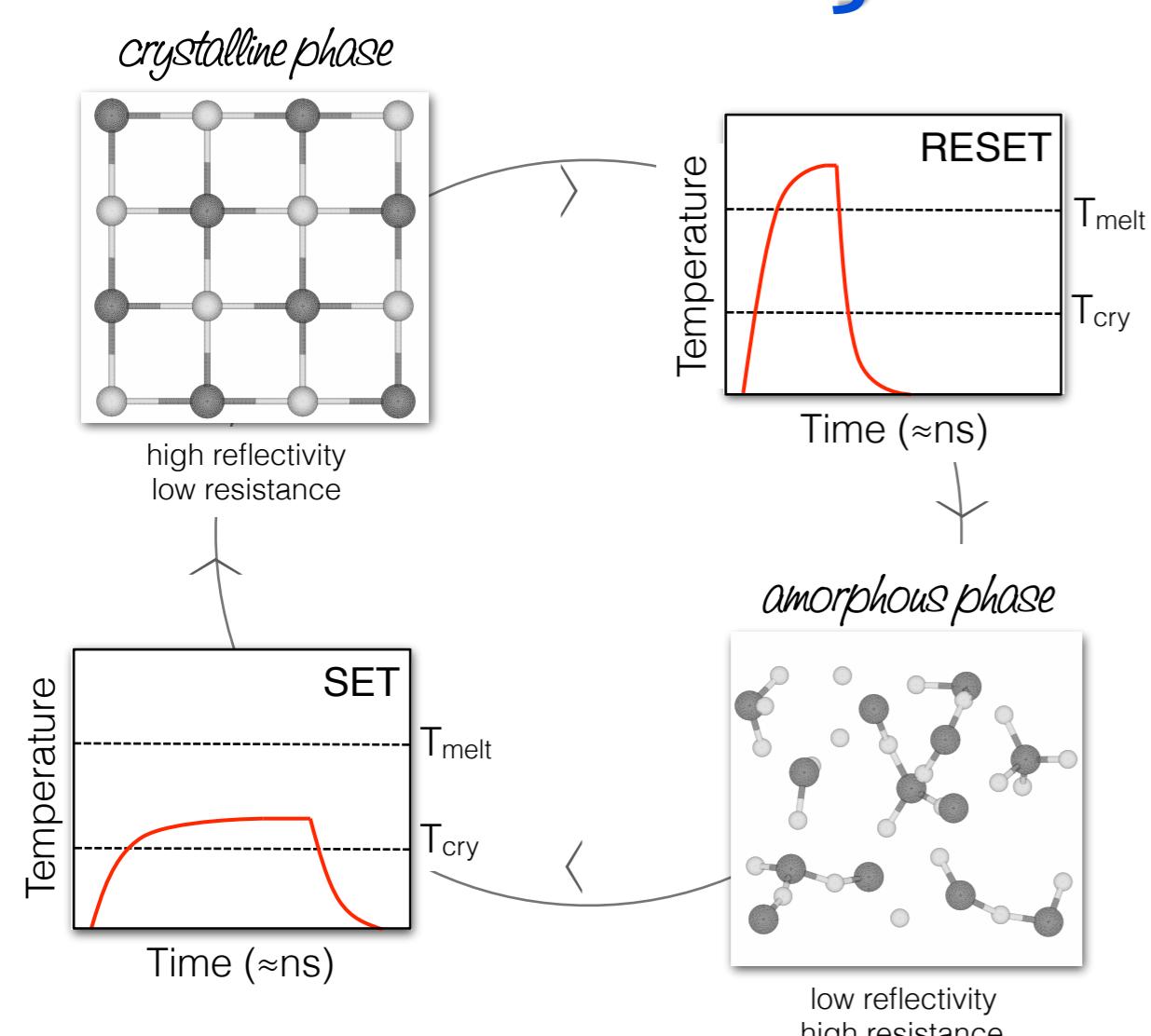
Material: ZnO NanoRods on Co



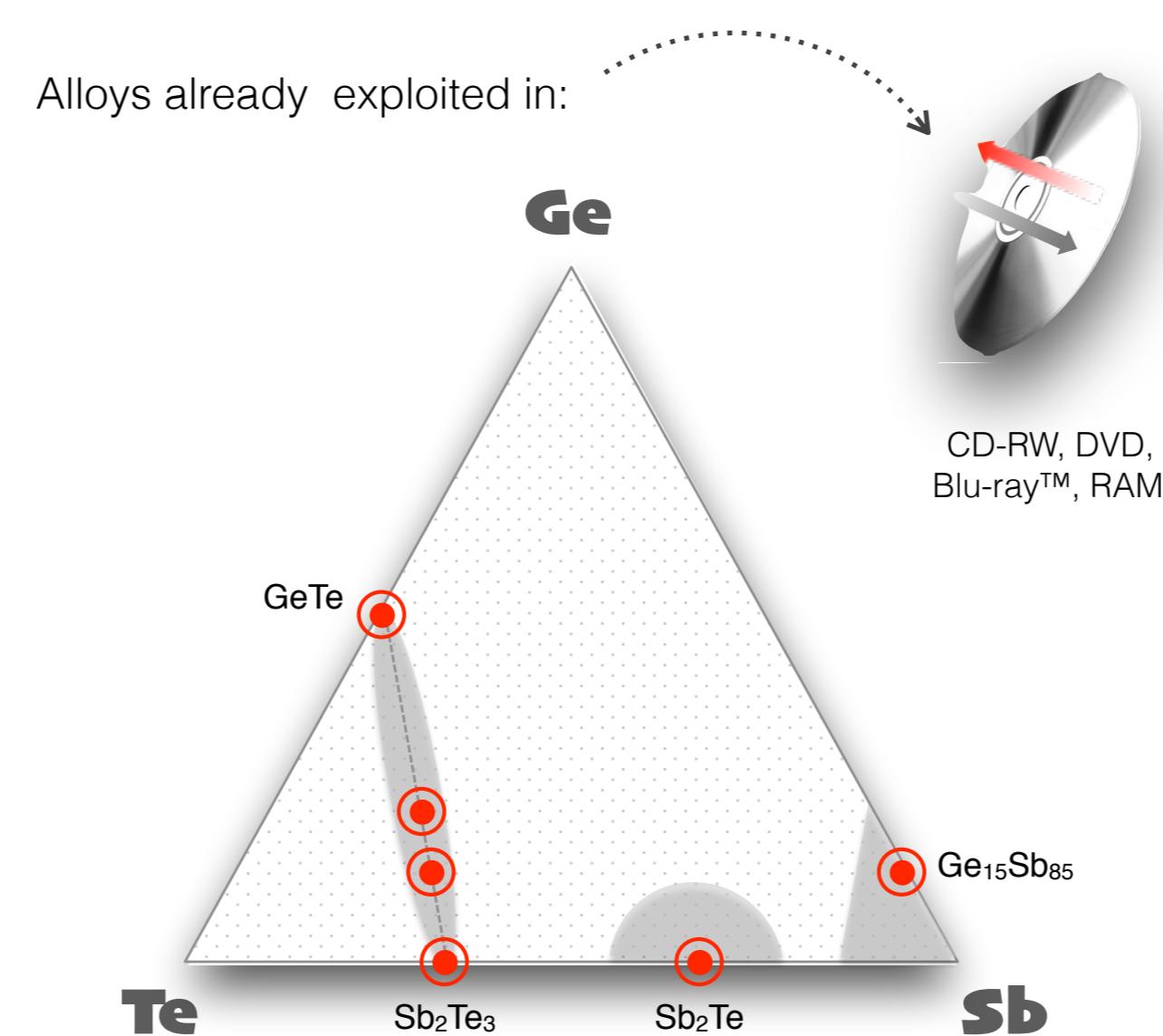
Static / Time-Resolved Magneto-Optical Measurements



Reversible Structural Phase Switching



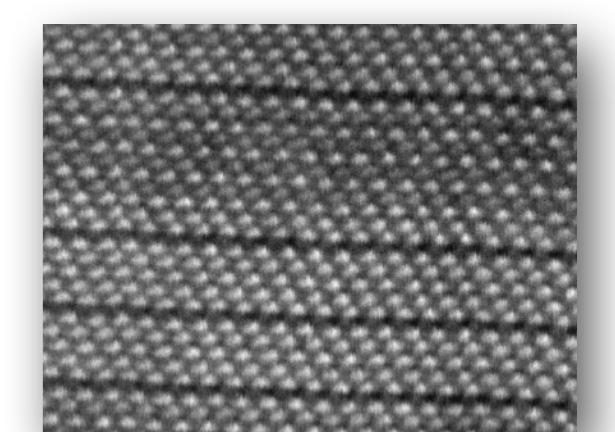
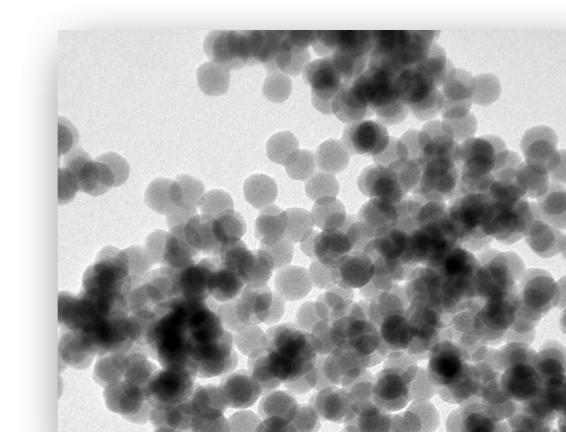
Material: GeSbTe



Nanostructures

..with respect to the single crystal analogues:

higher Information Density
higher Crystallization Temperature
different (?) Switching Mechanism

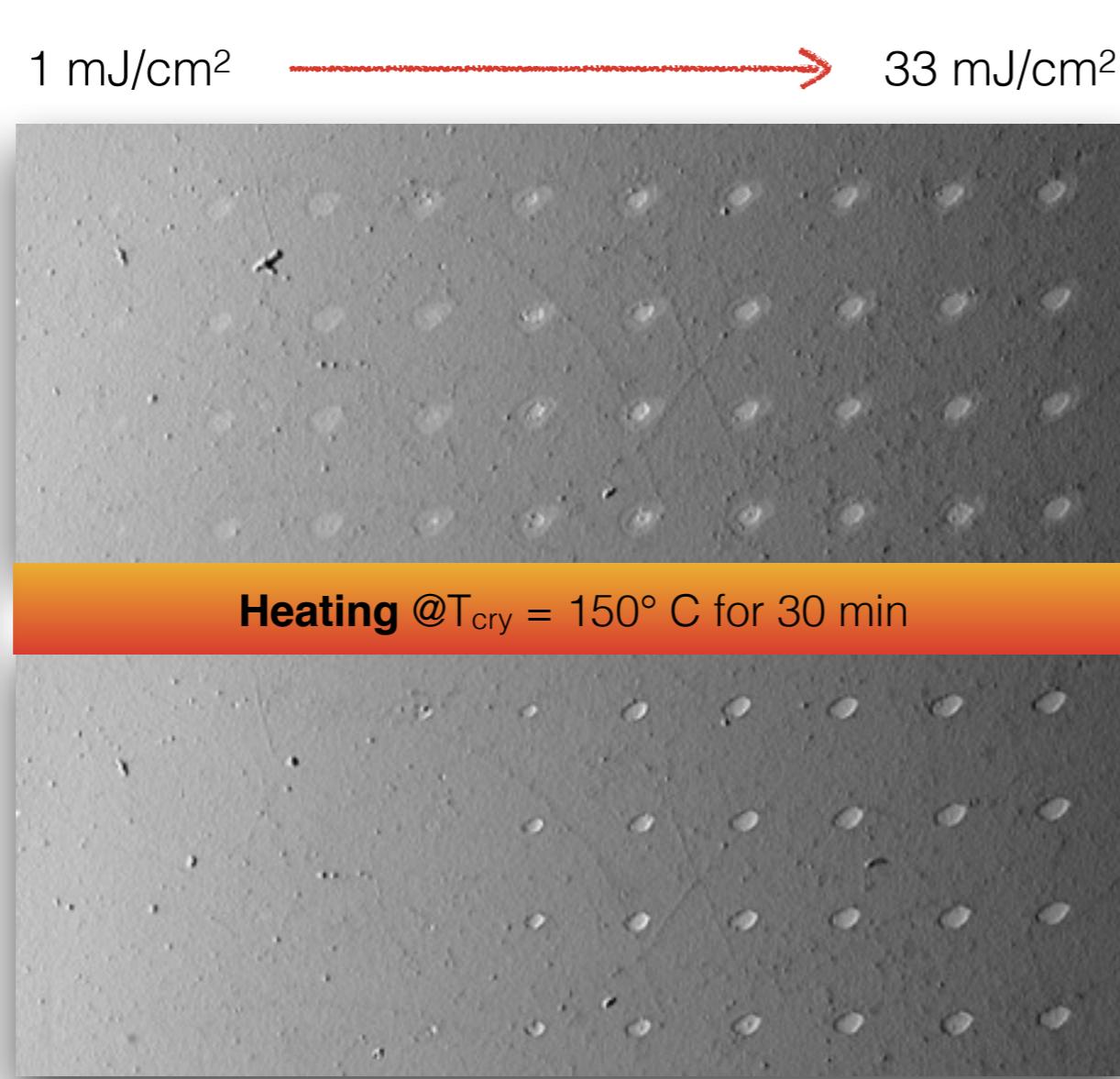
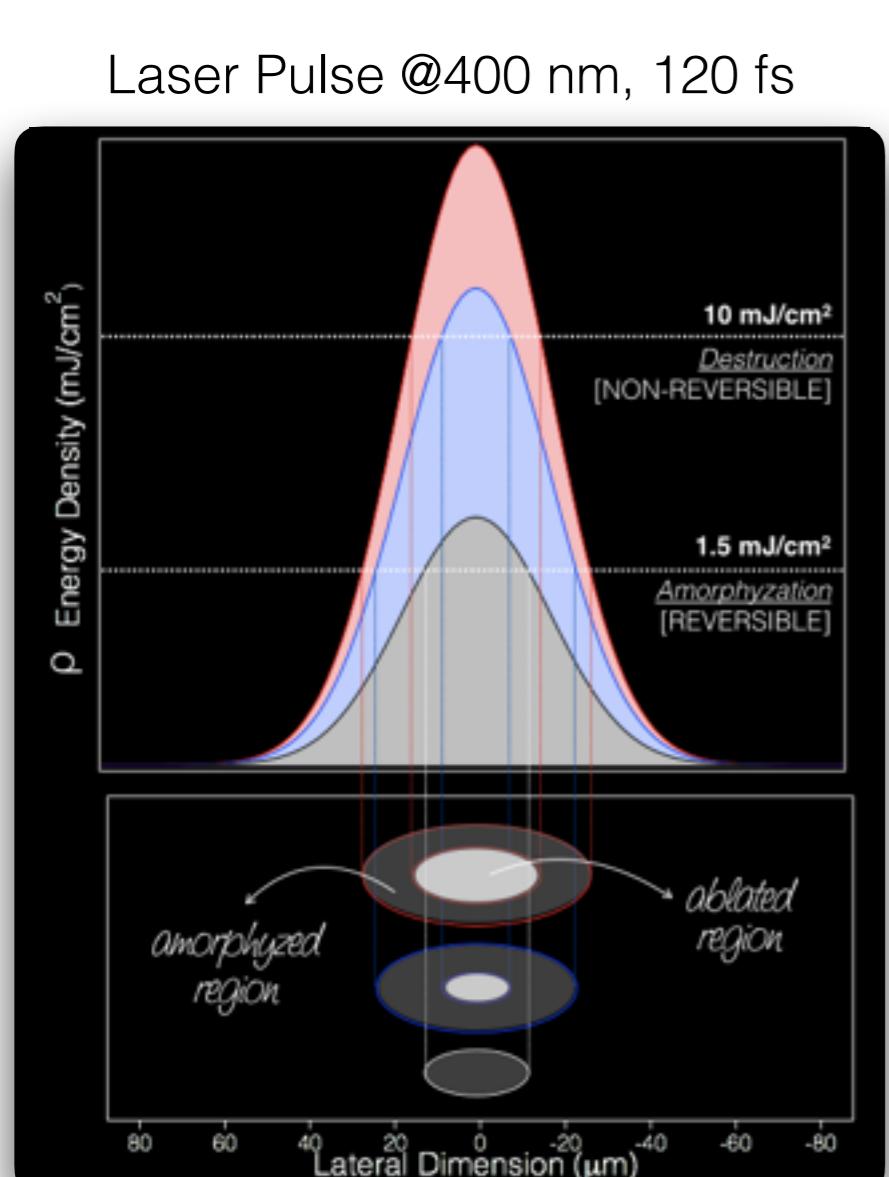


Nanoparticles

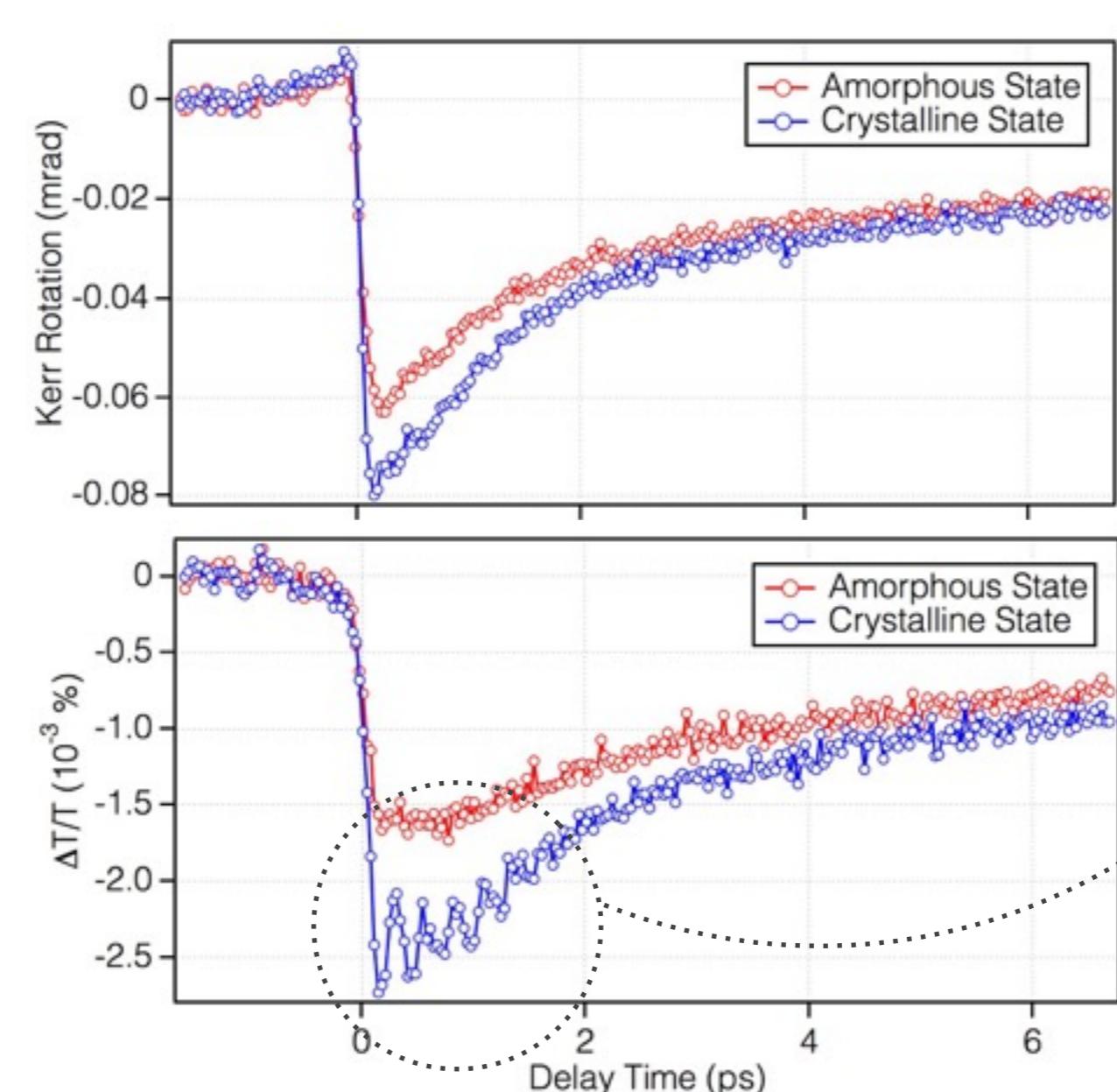
Collaboration with:
B. Chen, B. J. Kooi , University of Groningen

Collaboration with:
V. Bragaglia, R. Calarco, PDI Berlin
F. L. Lange, M. Wuttig, RWTH Aachen

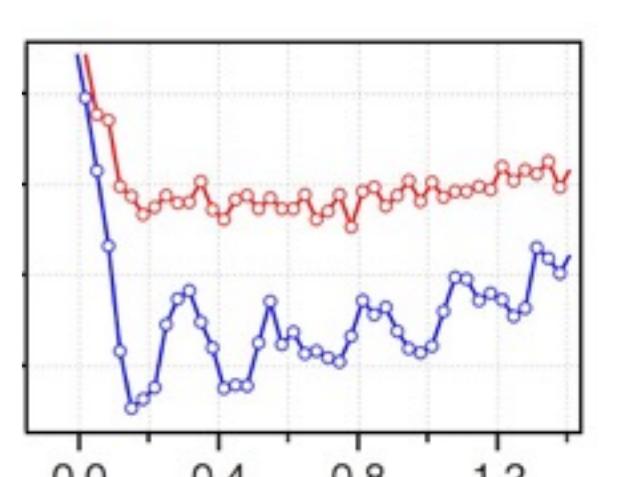
Single-Shot Optical Phase Switching



Time-Resolved Optical Measurements



I_dont_kerr
LAB



what else?
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