Im Auftrag der Dozenten der Fakultät Physik
Der Dekan

Einladender: Prof. Mirko Cinchetti

KOLLOQUIUM PHYSIK

Thema
Cold opto-magnetic recording at the edge of time

Vortragender
Prof. Dr. Alexey Kimel
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Ort
im Raum P2-E0-414

Zeit
Dienstag, den 09. Oktober 2018
16:30 Uhr

Kolloquiums-Kaffee ab 16:00 Uhr
(Alle sind herzlich eingeladen)
The ability to switch magnets between two stable bit states is the main principle of modern data storage technology. Controlling the magnetic state of media with the lowest possible dissipations and simultaneously at the fastest possible time-scale is a new and great challenge in fundamental and applied magnetism.

A femtosecond laser pulse is one of the shortest stimuli in contemporary condensed matter physics. Exciting magnets on a time-scale much faster than characteristic times of atomic, orbital and spin motion can steer magnetization dynamics along yet unexplored non-thermodynamic routes. In my talk I would like to discuss these routes for the cases of magnetic dielectrics [1-3] and propose the ways to design a medium for ultrafast and cold opto-magnetic recording.