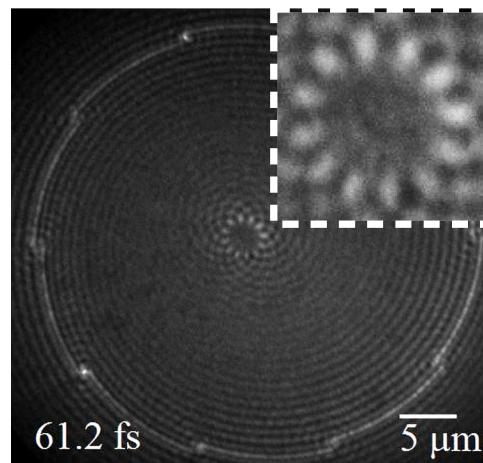


KIDS TALK

“Spirals everywhere: From Sunflowers to twisted light beams to tiny plasmonic whirlpools”

Speaker: Michael Hartelt, AG Aeschlimann

Abstract: The formation of a plasmonic vortex (rotational flow around a phase singularity) can be achieved on a metallic film with a coupling structure that is designed to induce a phase pattern when illuminated with circularly polarized light. We perform near-field imaging of the ultrafast dynamics of plasmonic vortices using time-resolved two-photon photoemission electron microscopy (TR-PEEM). A broadband ultrashort pulse laser excites surface plasmon polaritons (SPPs) and probes their electric field with 100 as time step and 40 nm spatial resolution. Here we observe the sub-optical cycle spatiotemporal evolution of the dynamics in plasmonic vortex lenses (PVL). These structures were fabricated by focused ion beam (FIB) milling into the surface of thin polycrystalline gold films and single crystalline, atomically flat gold flakes.



When: Friday, January 27th 2017, **10:00 am**

Where: Room 46-387/388

All undergraduate and graduate students as well as postdocs are welcome and encouraged to join our discussion!

***** COFFEE, TEA AND COOKIES WILL BE SERVED *****

For questions, comments or suggestions: emmerich@physik.uni-kl.de

