

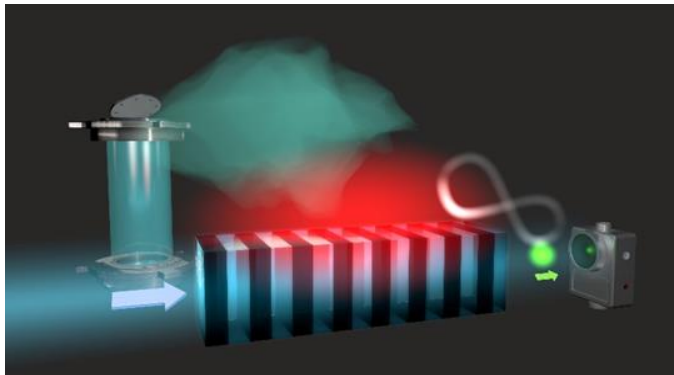
Quantum imaging and sensing

Theory and design:

- Conceptual development of quantum sensing modalities

In the lab:

- Implementation and characterization of Ghost Image microscopy
- Realization of integrated spectroscopy based on induced coherence in integrated waveguides



Contact: Dr. Vira Besaga, vira.besaga@uni-jena.de

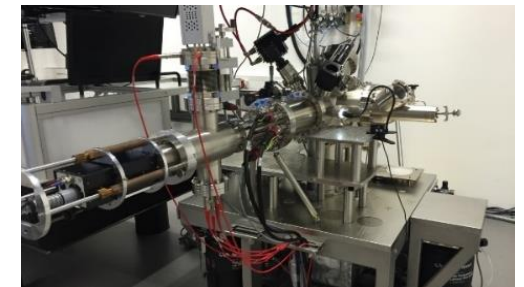
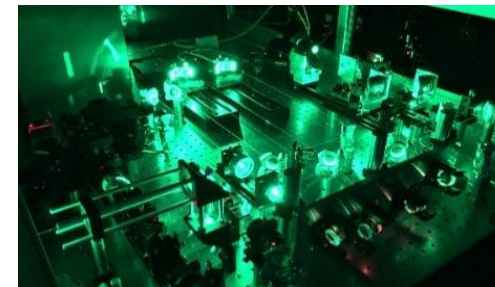
Spatiotemporal dynamics of nano-scale light-matter interactions in metasurfaces and atomic membranes

Theory and design:

- Modeling of spatio-temporal dynamics of light and electrons on the nano-scale using rigorous solutions of Maxwell's equations coupled to material models

In the lab:

- Experimental investigation of the ultrafast dynamics of laser-excited solid state nanosystems
- Nanotechnologies for the realization of hybrid nonlinear photonic nanosystems and metasurfaces



Contact: Dr. Bayarjargal Narantsatsralt, n.bayarjargal@uni-jena.de