





## Nonequilibrium Materials Engineering

The interaction of light and matter is at the heart of spectroscopies in condensed matter. With the development of ultra-short and ultra-strong laser pulses for pump-probe experiments, light is transforming from a tool to probe towards a tool to control and manipulate quantum many-body systems while driving them far away from their thermal equilibrium. In my presentation, I discuss our recent theoretical and computational progress towards a microscopic understanding of light-driven solids with the long-term vision of nonequilibrium materials engineering.

## **Dr. Michael Sentef**

Max Planck Institute for the Structure and Dynamics of Matter, Hamburg room P 603, Mo. 22.10.2016, 13:30