

## **Seminar über Ultrafast Science and Technology**

**Referent/in:** David Rohrbach

**Titel:** 3D-printed THz waveplates

Waveplates manipulate the orbital angular momentum or the polarization state of electromagnetic waves. For THz applications, an affordable manufacturing process for custom waveplates is based on a fused deposition modeling technique. In this talk I will first introduce the experimental setup which performs spatially resolved measurements of the horizontal, vertical and longitudinal electric field component. Then, I present the design, fabrication, simulations and experimental characterization of different waveplates all optimized for a frequency around 300GHz. Spiral phase plates are used to manipulate the orbital angular momentum, while quarter-waveplates, half-waveplates or q-plates modify the polarization state.

**Zeit:** Donnerstag, 15.04.2021, 11.15 Uhr

**Ort:** <https://unibe-ch.zoom.us/j/95614042821>