



Universität Regensburg

FAKULTÄT FÜR PHYSIK

Lehrstuhl für Experimentelle und
Angewandte Physik

Prof. Dr. Rupert Huber

Seminar

Wednesday, April 12, 2023, 3:00 PM

[ZOOM link Seminar Saemus O'Hara](#)

James (Seamus) O'Hara
UC Santa Barbara

Probing Quantum Condensed Matter Through the Polarimetry of High-order Sidebands

The wavelike nature of electronic states in crystalline matter has been well understood since the development of Bloch's theorem almost a century ago. However, it has been difficult to measure the wavelike properties of these states due to the relatively fast (\sim ps) scattering and decohering processes in many of these materials. In my talk, I will present High-order Sideband Generation (HSG) as an ultrafast probe of Bloch waves in quantum condensed matter systems, and connect the sideband polarization to the interference of different Bloch wavefunctions.

Host: Rupert Huber