

## HOW TO DESCRIBE PUMP- PROBE EXPERIMENTS IN QUANTUM MATERIALS

JAMES FREERICKS

Georgetown University,  
Washington, D.C.  
USA

I will describe both the challenges, and how to address them, when theoretically modelling ultrafast pump-probe experiments in strongly correlated materials and in materials with strong electron-phonon coupling. After providing an introduction, I will focus on two case studies: (i) examining the response at picosecond times of charge-density waves with ultrashort pulses that drive the electrons and (ii) examining the response on femtosecond times for nonresonant electronic Raman scattering.

FRIDAY,  
11.04.2025

2:00 PM

CFEL  
SEMINAR ROOMS I-III  
&  
ONLINE PRESENTATION  
CHECK HHPS.DE FOR  
FURTHER INFORMATION

