



## Joint Quantum Sciences Seminar Wednesday, December 13, 4:00 pm Jefferson 250

## Prof. Andrea Cavalleri

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## "Nonlinear THz optics as probe of quantum solids"

In this lecture, I will discuss how coherent electromagnetic radiation at infrared and TeraHertz frequencies can be used to collective excitations like phonons in solids. I will emphasize experiments in which hidden features the superconducting order parameter can be revealed. I will also discuss advances in the nonlinear response of phonons, which I will show can be used as a probe of the interatomic potential of a solid.

Guest Presentation will begin at 4:30 PM Refreshments will be provided