JOURNAL CLUB: High-harmonic generation from solids

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12:00 to 13:00
Seminar Room

High-harmonic generation in atomic gases has been studied for decades, and has formed the basis of attosecond science. Observation of high-order harmonics from bulk crystals was, however, reported much more recently, in 2010. This Review surveys the subsequent efforts aimed at understanding the microscopic mechanism of solid-state harmonics in terms of what it can tell us about the electronic structure of the source materials, how it can be used to probe driven ultrafast dynamics and its prospects for novel, compact short-wavelength light sources. Although most of this work has focused on bulk materials as the source, recent experiments have investigated high-harmonic generation from engineered structures, which could form flexible platforms for attosecond photonics.

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