

MEGHÍVÓ

**Az MTA Atommagkutató Intézet előadótermében
(Debrecen, Poroszlay út 6., XII. ép. III. em.)**

2017. november 15-én (SZERDÁN!) 11:00-kor

High-harmonics generation in dielectrics

Előadó: Prof. Christoph Lemell

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We have developed an ab-initio multi-scale simulation for the generation of solid-state high harmonics self-consistently. We combine the microscopic non-linear response treated within the frameworks of TDDFT or multiband Bloch equations with mesoscopic propagation and source distribution effects providing novel insights in HHG in solids. Microscopic simulation of the non-linear response of a single cell of the periodic system alone fails to yield a well-defined harmonic spectrum irrespective of the level of the underlying approximation. We find the spatio-temporal distribution of the emission events on the mesoscopic scale to lead to the formation of a clean high-harmonic spectrum with pronounced peaks at odd harmonics by way of interference.



A szeminárium előtt 10:30-tól tea.

Gácsi Zoltán