PHOTONIK SEMINAR

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Isolated attosecond pulses generation driven by a synthesized two-color laser field without CEP stabilization

Since 2001 two groups from Saclay, France (CEA) and Vienna, Austria (TUW) succeeded in proving the production of attosecond pulse trains and isolated attosecond pulses (IAPs) using high harmonic generation processes, respectively, the generation of attosecond pulses has opened up the new areas of triggering, steering, probing and imaging the electronic and concomitant atomic motion with attosecond resolution inside atoms, molecules, and solids. Since shorter light sources can diagnose faster phenomena, the generation of IAPs is critical in ultrafast measurements. During the last decade, many methods thus have been proposed to produce the IAPs. Whether mentioned or not, the carrier envelope phase (CEP) stabilization is always needed to generate the IAPs. In this talk, I will summarize and focus on the demonstrations of, both experimentally and theoretically, generation of IAPs driven by a synthesized two-color laser field without the CEP stabilization.

Thursday, June 21st, 2012, 16:15
Seminar room of the Photonics Institute
Güßhausstraße 27-29, 1040 Wien, room CBEG02

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