

エクストリームフォトンクスセミナー  
*Extreme Photonics Seminar*

*Language: English*

*Date :* Oct. 11(Thu), 2012, 15:00 ~ 16:00

*Location :* Cooperation Center, 5F Meeting Room, W524  
(研究交流棟 5 階会議室 W524)

*Title :* High-order Harmonic Generation  
in Synthesized Fields

*Speaker :* Dr. Valer TOSA

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We analyze the generation of single attosecond pulses by synthesized waveforms of sub-cycle pulse duration. High-order harmonics generation (HHG) is an intrinsic time-dependent process taking place two times every optical cycle of the electric field. The generation of a single burst of radiation seems therefore a difficult task even for few cycle pulses. We present the results of macroscopic modeling of HHG by high intensity transient waveforms which lead to single attosecond pulse generation in the water window and beyond, reaching the 1 keV spectral region. Controlled generation of two attosecond pulses is shown to be possible in specific configurations of the fields.