

# エクストリームフォトンクスセミナー

## *Extreme Photonics Seminar*

日時: 平成21年 4月 2日(木)  
11:00 ~ 12:00, April 2nd (Thu), 2009

場所: 研究交流棟5階会議室 W524  
Cooperation Center, 5F Meeting Room, W524

題目: Isolated sub-100 as pulse generation  
using grating-based chirped amplifiers

講師: Prof. Zenghu Chang (Kansas State University)

**要旨:** We demonstrated that the carrier-envelope (CE) phase of grating-based CPA systems could be stabilized by feedback controlling the effective grating separation in stretchers or compressors. Such lasers can generate femtosecond pulses with much higher power than prism-based laser systems. By compressing the laser pulses from the grating-based amplifier, we were able to obtain CE phase stabilized 10 to 20 fs pulses required by the double optical gating for generating single isolated attosecond pulses. XUV pulses shorter than 100 as were generated efficiently in argon gas in the 20 to 80 eV photon energy range. The shape and phase of the isolated attosecond pulse were measured by the streaking based CRAB method.