

# 46<sup>th</sup> RAP Seminar

The 46th Seminar on RIKEN Center for Advanced Photonics

Language: Japanese

Date: **Sept.15 (Fri) 16:00 - 17:00, 2017**

Location: **W319, 3F, Cooperation Center, Wako Campus, RIKEN**

(理研 和光キャンパス 研究交流棟 3階会議室 W319)

Title: **Ultrafast electron diffraction / deflectometry  
and generation of intense sub-terahertz  
surface wave using laser accelerated electrons**

レーザー加速電子を用いた超高速電子線回折・偏向法と高強度サブテラヘルツ表面波発生

Speaker:

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In the opening part of this seminar, the research history of the lecturer since 1977 is introduced to review the researches of laser nuclear fusion and laser isotope separation with the progress of high-output energy laser under some social restrictions and difficulties of goal-oriented (mission-type) research. The main part of this talk is applications of intense femtosecond laser-matter interaction. Various sorts of radiations are emitted through the interaction of an intense laser pulse with matter and are under investigation for their next-generation sources of these radiations with the remarkable progress of high-power laser technologies. In this talk, the following topics of our recent research on the applications of laser accelerated electrons are reviewed: (1) the development of ultrafast electron diffraction / deflectometry using laser accelerated electron pulses, (2) the generation and guidance of electrons, and the generation of intense sub-THz surface wave (Sommerfeld-wave) by the interaction of intense laser pulses with metal wires.