

37th RAP Seminar

The 37th Seminar on RIKEN Center for Advanced Photonics

Language: Japanese

Date: **Oct. 21(Fri) 16:00 - 17:00, 2016**

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

(理研 和光キャンパス 研究交流棟 3階会議室 W319)

Title: **Metal particle manipulation by laser irradiation in glasses**

ガラス固体中における金属球のレーザマニピュレーション

Speaker: **Prof. Hirofumi HIDAI**

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We optically manipulated a metal particle in glass. The metal particle in glass was heated by laser illumination. The glass in the neighborhood of the laser heated metal particle softened; hence, the metal particle was able to migrate in the glass. In this presentation, the migration phenomena and the driving force of the metal particle toward the light source in the glass was discussed. The variation in the interfacial tension of the glass at the interface between the glass and the metal particle induced by the temperature gradient was calculated via a numerical temperature calculation. In addition, a nanoparticle precipitation phenomenon in the sphere migration trajectory was introduced.