



580th ASRC Seminar

Date: 13:30 ~14:30, 24 December

Location: Meeting Room 302, ASRC bldg.

Speaker: Dr. Masahiro Sato

(Aoyama Gakuin University)

Title: Laser-driven dynamics and transitions
in quantum magnets with magnetoelectric
couplings

Applying modern laser techniques, we can now generate and control THz laser pulses, which energy scale is comparable to magnetic excitations in solid electron systems. Motivated by this development of laser science, we have theoretically studied laser-driven phenomena in several kinds of Mott-insulating magnets. In this seminar, I would like to explain some of our recent results for THz-laser driven phenomena, especially, focusing on two predictions for multiferroic models: laser-driven spiral order (spin current) in quantum multiferroics with a spin-current type magnetoelectric (ME) coupling and a laser-driven topological state in the Kitaev honeycomb model with a magneto-striction type ME coupling.



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