

683rd ASRC Seminar

Date: Wednesday, May 17, 13:30 ~

Location: Room 302, ASRC bldg.

Speaker: Dr. Naoya Arakawa
(Toho University)

Title: Magnons of chiral magnets

Abstract: Magnons are quasiparticles describing the low-energy excitations in magnets. While the properties for nonchiral magnets, such as ferromagnets and antiferromagnets, are well understood, the understanding for chiral magnets, magnets having the finite spin scalar chirality, is developing. I recently studied the properties of magnons for several chiral magnets on the pyrochlore lattice using the linearized-spin-wave approximation, and found a difference between nonchiral and chiral magnets and a difference between different chiral magnets. In this presentation, I first explain the background and method, and then show the main results and their mechanisms. I also discuss how to utilize the characteristic magnon property of chiral magnets in spintronics.

<Contact>

Michiyasu Mori (81-3508)

Advanced Science Research Center