

Date: Jan. 15 (Tue), 10:00 ~ 11:00

Location: J-PARC研究棟2階大会議室.

Speaker: Prof. Je-Geun Park
(Seoul National University)

Title: Noncollinear triangular
antiferromagnetism and beyond

Abstract:

Magnon and phonon are the fundamental quasiparticles of solid along side with electron and orbital. Although it is not common, the cross-coupling between magnon and phonon has now been seen in several magnetic systems, in particular in noncollinear triangular antiferromagnets. In a recent review, we have provided the comprehensive review of how we can understand this rare phenomenon [1]. In the second part of my talk, I will highlight some of latest results from my group on two different fields: one is the spin-orbit coupling in Cu oxide [2] and another on the recently discovered magnetic van der Waals materials [3].

[1] Taehun Kim, Kisoo Park, Jonathan C. Leiner, Je-Geun Park, arXiv:1810.00498 & submitted as review to J. Phys. Soc. Jpn.

[2] Choong H. Kim, Hwanbeom Cho, Santu Baidya, Vladimir V. Gapontsev, Sergey V. Streltsov, Daniel I. Khomskii, Je-Geun Park, Ara Go, Hosub Jin, arXiv:1810.08594

[3] Kenneth S. Burch, David Mandrus, and Je-Geun Park, Nature 563, 47 (2018)

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