

Dipolar chirality of magnon transport in thin magnetic films

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Non-reciprocity, chirality, or uni-directionality of transport are ubiquitous phenomena in condensed matter physics that are often ascribed to the relativistic spin-orbit interaction. However, in the case of magnon transport, the dipolar interaction is often a much stronger source of chiral magnon propagation [1,2]. In recent years, Yu Tao and collaborators established the nature of this chirality in thin magnetic films [3] and unveiled new observable consequences.

In this talk I will review this issue and discuss recent results.

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[2] K. Yamamoto, G.C. Thiang, P. Pirro, K.-W. Kim, K. Everschor-Sitte, and E. Saitoh, Topological characterization of classical waves: The topological origin of magnetostatic surface spin waves, *Phys. Rev. Lett.* **122**, 217201 (2019).

[3] T. Yu, Z. Luo, G.E.W. Bauer, Chirality as generalized spin-orbit interaction in spintronics, *Physics Reports* **1009**. 1 (2023).