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Damped Topological Magnons in the Kagomé-Lattice Ferromagnets[1] ALEXANDER CHERNYSHEV, PAVEL MAKSIMOV, Univ of California - Irvine — We demonstrate that interactions can substantially alter the free-band description of magnons in ferromagnets on geometrically frustrated lattices. The anharmonic coupling facilitated by the Dzyaloshinskii-Moriya interaction and a highly-degenerate structure of the two-particle continuum induce a non-perturbative damping of the high-energy magnon modes. We provide a detailed account of the effect for the $S=1/2$ ferromagnet on the kagomé lattice and propose further experiments.

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