

Some aspects of the inelastic photon scattering on magnons in YIG

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We propose and discuss a very simple model of the inelastic photon scattering on magnons in thin films of YIG [1]. Among other questions, we touch the one what influence surface nanostructures can have on the spectrum of the magnons and the latter's interactions with the light photons. The nanostructures can be either natural or artificially manufactured. Our analysis is inspired by a renewed interest in different puzzling properties of the YIG magnons such as the Bose-Einstein condensation of the magnon gas in YIG at room temperature [2] or using garnets as magnonic materials [3].

References:

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