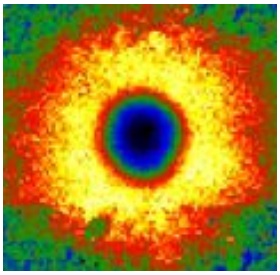

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Modeling of the micro-focused Brillouin light scattering signal

We report on modeling the signal of micro-focused Brillouin light scattering (BLS) on spin waves. Our model can use either analytic calculation of the induced susceptibility for quick optimization of simple systems such as infinite thin films, or it can use results of micromagnetic simulations for thorough analysis of systems with complicated geometries and compositions. We apply this model to various scenarios and discuss the influence of different factors on the shape of the BLS spectra. The presented model opens the way towards a more advanced analysis of the shapes of the measured BLS spectra which can lead to better design of magnonic experiments, materials and devices.

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