

Micromagnetic simulations – How to use OOMMF

tutorial

October 24, 2018 | 4:00 pm
Lecture Hall MPI | B.1.11



Abstract

The stabilizing of various magnetic non-collinear texture, including magnetic domain patterns, domain walls or Skyrmion, as well as their dynamic behavior are one of the major realms of spintronic of the last decade. Micromagnetic simulation is an effective method frequently been employed to explain experiment observations and predict new experiment designs.

In this talk, I will give a brief introduction on the most widely used micromagnetic simulation software, the Object Oriented MicroMagnetic Framework (OOMMF) from NIST. The working principle of the software will be shown first, followed by an example simulation from configuring the simulation parameter file (*.mif) to the simulation result analysis. Finally, a few typical simulations results of M-H loop, magnetic vortex and magnetic domain wall motion will be shown.

Speaker

Tianping Ma
tianping.ma@mpi-halle.mpg.de
MPI, Halle

