ECS 521/641: Spintronics and Nanomagnetics

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HW #5

Problem 1

Download Object Oriented MicroMagnetic Framework (OOMMF) and perform the simulations in HW4, Problem 2 (d) and (e).

Problem 2

Using OOMMF, simulate the flower magnetization distribution in Fig. 1 (a) of the following paper:

Cowburn, R. P. and Welland, M. E., Micromagnetics of the single-domain state of square ferromagnetic nanostructures, Phys. Rev. B 58(14), 9217 (1998).

Problem 3

Using OOMMF, simulate the leaf magnetization distribution in Fig. 1 (b) of the following paper:

Cowburn, R. P. and Welland, M. E., Micromagnetics of the single-domain state of square ferromagnetic nanostructures, Phys. Rev. B 58(14), 9217 (1998).