Study of ferromagnetism systems

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ABSTRACT

During the last decade, an increased interest in ferromagnetic materials has emerged, due to their new applications in data storage and nanoelectronics: digital data recording, lower storage energy costs, more efficient performances of the devices. Different research directions will be addressed in this mini-symposium.

- The ferromagnetic materials involve many multi-physical effects (thermal effects [2], magnetostriction, geometrical effects), which are interesting to take into account in the models.

- Optimizing the ferromagnetic performances, for instance by controlling the geometry of the nanowires, or the position of the domain walls (thin zones of magnetization reversal) [1], remains a major challenge.

**REFERENCES**

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[2] S. Labbé and J. Lelong, “Stochastic modelling of thermal effects on a ferromagnetic nano particle”, *J. Dyn. Diff. Equat.*, Vol. **32**, pp. 1273-1290, (2020).