

Walker Regime for Walls in Ferromagnetic Nanotubes

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SUMMARY

Ferromagnetic nanotubes are proposed in [1] as an alternative to ferromagnetic nanowires for data-storage applications. We consider a two-dimensional model for such devices and we establish the stability of moving walls in the Walker regime when the tube is subject to a small magnetic field.

Keywords: Landau-Lifschitz equation, domain walls, stability

AMS Classification: 35K55, 35Q60

References

- [1] MING YAN, CHRISTIAN ANDREAS, ATTILA KÁKAY, FELIPE GARCÍA-SÁNCHEZ AND RICCARDO HERTEL. Fast domain wall dynamics in magnetic nanotubes: Suppression of Walker breakdown and Cherenkov-like spin wave emission. *Appl. Phys. Lett.* **99**, 2011.

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