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Field-driven and Spin-transfer-torque-driven Domain-Wall Dynamics

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Condition: New. Publisher/Verlag: VDM Verlag Dr. Müller | in Ferromagnetic Micro-/Nano- structures | The main topic of this book is to explore magnetic-field- and electric-current-driven domain-wall motion in thin-film-based magnetic microstructures. Conventional thin-film growth and microstructure fabrication techniques including electron-beam lithography and focused ion beam milling are used to fabricate nanometer-scale one-dimensional and two-dimensional magnetic structures that support magnetic domains (regions of different magnetization orientation separated by domain walls). A high-spatial resolution, high-temporal resolution technique for measuring the field- or current- driven dynamics of the domain walls, based on the magneto-optic Kerr effect, is developed and used to study the wall dynamics. Domain-wall motion driven by (spin-polarized) electric current is studied in nano-scale thin-film based wires. The experiments address issues pertaining to the basic mechanisms responsible for current-driven domain-wall motion, which are believed to be the adiabatic spin-torque mechanism and non-adiabatic mechanisms. | Format: Paperback | Language/Sprache: english | 150 gr | 220x150x5 mm | 100 pp.

Reviews

The book is simple in read through better to fully grasp. It is rally exciting through looking at period of time. I discovered this publication from my i and dad encouraged this book to find out.

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