1. Record Nr. UNINA9910634035003321

Titolo	Spin Dynamics in Confined Magnetic Structures III [[electronic resource] /] / edited by Burkard Hillebrands, Andre Thiaville
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2006
ISBN	1-281-38986-2 9786611389864 3-540-39842-2
Edizione	[1st ed. 2006.]
Descrizione fisica	1 online resource (XIV, 345 p.)
Collana	Topics in Applied Physics, , 0303-4216 ; ; 101
Disciplina	538
Soggetti	Magnetism Magnetic materials Optical materials Electronics - Materials Solid state physics Spectrum analysis Microscopy Magnetism, Magnetic Materials Optical and Electronic Materials Solid State Physics Spectroscopy and Microscopy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Precessional Switching of Thin Nanomagnets with Uniaxial Anisotropy -- Spin-Wave Excitations in Finite Rectangular Elements -- Ferromagnetic Resonance Force Microscopy -- Vortex Dynamics -- Domain-Wall Dynamics in Nanowires and Nanostrips -- Domain-Wall Dynamics in Magnetic Logic Devices -- Spin Transfer Torque and Dynamics -- Spin and Energy Relaxation of Hot Electrons at GaAs Surfaces -- Subject Index.
Sommario/riassunto	This third volume of Spin Dynamics in Confined Magnetic Structures addresses central aspects of spin-dynamic phenomena, including

recent new developments, on a tutorial level. Researchers will find a comprehensive compilation of the current work in the field. Introductory chapters help newcomers to understand the basic concepts. The more advanced chapters give the current state of the art of spin dynamic issues ranging from the femtosecond to the microsecond regime. This volume concentrates on new experimental techniques such as ferromagnetic-resonance-force microscopy and two-photon photoemission, as well as on aspects of precessional switching, spin-wave excitation, vortex dynamics, spin relaxation, domain-wall dynamics in nanowires and their applications to magnetic logic devices. An important chapter is devoted to the presently very hot subject of the spin-transfer torque, combining the physics of electronic transport and micromagnetics. The comprehensive presentation of these developments makes this volume a very timely and valuable resource for every researcher working in the field of magnetism.