

BOOK SECTIONS, JOURNAL ARTICLES AND CONFERENCE PROCEEDINGS

2015

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JOURNAL ARTICLES

Ferromagnetic tunnel contacts to graphene: Contact resistance and spin signal

Cubukcu, M., M.-B. Martin, P. Laczkowski, C. Vergnaud, A. Marty, J.-P. Attané, P. Seneor, A. Anane, C. Deranlot, A. Fert, S. Auffret, C. Ducruet, L. Notin, L. Vila and M. Jamet

[Journal of Applied Physics](#) **117** (2015) 083909

Perpendicular magnetic tunnel junctions with double barrier and single or synthetic antiferromagnetic storage layer

Cuchet, L., B. Rodmacq, S. Auffret, R.C. Sousa, I.L. Prejbeanu and B. Dieny

[Journal of Applied Physics](#) **117** (2015) 233901

Bimodal distribution of blocking temperature for exchange-biased ferromagnetic/antiferromagnetic bilayers: A granular Monte Carlo study with interfacial spin-glass-like phases

Lhoutellier, G., D. Ledue, R. Patte, F. Barbe, B. Dieny and V. Baltz

[Journal of Physics D: Applied Physics](#) **48** (2015) 115001

Highly asymmetric magnetic domain wall propagation due to coupling to a periodic pinning potential

Novak, R.L., P.J. Metaxas, J.-P. Jamet, R. Weil, J. Ferré, A. Mougin, S. Rohart, R.L. Stamps, P.-J. Zermatten, G. Gaudin, V. Baltz and B. Rodmacq

[Journal of Physics D: Applied Physics](#) **48** (2015) 235004

Non-linear mode interaction between spin torque-driven and damped modes in spin torque nano-oscillators

Romera, M., E. Montebianco, F. Garcia-Sanchez, B. Delaët, L.D. Buda-Prejbeanu and U. Ebels

[Applied Physics Letters](#) **106** (2015) 192405

Geometry effects on magnetization dynamics in circular cross-section wires

Sturma, M., J.-C. Toussaint and D. Gusakova

[Journal of Applied Physics](#) **117** (2015) 243901

The nature of domain walls in ultrathin ferromagnets revealed by scanning nanomagnetometry

Tetienne, J.-P., T. Hingant, L.J. Martinez, S. Rohart, A. Thiaville, L.H. Diez, K. Garcia, J.-P. Adam, J.V. Kim, J.-F. Roch, I.M. Miron, G. Gaudin, L. Vila, B. Ocker, D. Ravelosona and V. Jacques

[Nature Communications](#) **6** (2015) 6733

Controlling the spin torque efficiency with ferroelectric barriers

Useinov, A., M. Chshiev and A. Manchon

[Physical Review B](#) **91** (2015) 064412

CONFERENCE PROCEEDINGS

Magnetic Random Access Memory-based non-volatile asynchronous Muller cell for ultra-low power autonomous applications

Di Pendina, G., E. Zianbetov and E. Beigné

[Journal of Applied Physics](#) **117** (2015) 17B517

2014

JOURNAL ARTICLES

Band-edge noise spectroscopy of a magnetic tunnel junction

Aliev, F.G., J.P. Cascales, A. Hallal, M. Chshiev and S. Andrieu

[Physical Review Letters](#) **112** (2014) 216801

Field-like and antidamping spin-orbit torques in as-grown and annealed Ta/CoFeB/MgO layers

Avci, C.O., K. Garello, C. Nistor, S. Godey, B. Ballesteros, A. Mugarza, A. Barla, M. Valvidares, E. Pellegrin, A. Ghosh, I.M. Miron, O. Boulle, S. Auffret, G. Gaudin and P. Gambardella

[Physical Review B](#) **89** (2014) 214419

Spin-orbit torque magnetization switching of a three-terminal perpendicular magnetic tunnel junction

Cubukcu, M., O. Boulle, M. Drouard, K. Garello, C.O. Avci, I.M. Miron, J. Langer, B. Ocker, P. Gambardella and G. Gaudin

[Applied Physics Letters](#) **104** (2014) 042406

Influence of magnetic electrodes thicknesses on the transport properties of magnetic tunnel junctions with perpendicular anisotropy

Cuchet, L., B. Rodmacq, S. Auffret, R.C. Sousa and B. Dieny

[Applied Physics Letters](#) **105** (2014) 052408

Interfacial electronic transport phenomena in single crystalline Fe-MgO-Fe thin barrier junctions

Gangineni, R.B., C. Bellouard, A. Duluard, B. Negulescu, C. Baraduc, G. Gaudin and C. Tiusan

[Applied Physics Letters](#) **104** (2014) 182402

Ultrafast magnetization switching by spin-orbit torques

Garello, K., C.O. Avci, I.M. Miron, M. Baumgartner, A. Ghosh, S. Auffret, O. Boulle, G. Gaudin and P. Gambardella

[Applied Physics Letters](#) **105** (2014) 212402

A novel architecture of non-volatile magnetic arithmetic logic unit using magnetic tunnel junctions

Guo, W., G. Prenat and B. Dieny

[Journal of Physics D: Applied Physics](#) **47** (2014) 165001

Impurity-induced enhancement of perpendicular magnetic anisotropy in Fe/MgO tunnel junctions

Hallal, A., B. Dieny and M. Chshiev

[Physical Review B](#) **90** (2014) 064422

Full control of the spin-wave damping in a magnetic insulator using spin-orbit torque

Hamadeh, A., O. d'Allivy Kelly, C. Hahn, H. Meley, R. Bernard, A.H. Molpeceres, V.V. Naletov, M. Viret, A. Anane, V. Cros, S.O. Demokritov, J.L. Prieto, M. Muñoz, G. de Loubens and O. Klein

[Physical Review Letters](#) **113** (2014) 197203

Origin of spectral purity and tuning sensitivity in a spin transfer vortex nano-oscillator

Hamadeh, A., N. Locatelli, V.V. Naletov, R. Lebrun, G. de Loubens, J. Grollier, O. Klein and V. Cros

[Physical Review Letters](#) **112** (2014) 257201

Comparison of Verilog-A compact modeling strategies for spintronics devices

Jabeur, K., F. Bernard-Granger, G. di Pendina, G. Prenat and B. Dieny

[Electronics Letters](#) **50** (2014) 1353

Spin-orbit torque non-volatile flip-flop for high-speed and low-energy applications

Jabeur, K., G. di Pendina, F. Bernard-Granger and G. Prenat

[IEEE Electron Device Letters](#) **35** (2014) 408

Ultra energy-efficient CMOS/magnetic non-volatile flip-flop based on spin-orbit torque device

Jabeur, K., G. di Pendina and G. Prenat

[Electronics Letters](#) **50** (2014) 585

Compact modelling of a magnetic tunnel junction based on spin-orbit torque

Jabeur, K., G. di Pendina, G. Prenat and L.D. Buda-Prejbeanu

[IEEE Transactions on Magnetism](#) **50** (2014) 4100208

Current driven magnetization dynamics of a self-polarised synthetic ferrimagnet

Jenkins, A.S., B. Lacoste, G. Geranton, D. Gusakova, B. Dieny, U. Ebels and L.D. Buda-Prejbeanu

[Journal of Applied Physics](#) **115** (2014) 083911

Beyond first-order finite element schemes in micromagnetics

Kritsikis, E., A. Vaysset, L.D. Buda-Prejbeanu, F. Alouges and J.-C. Toussaint

[Journal of Computational Physics](#) **256** (2014) 357

Magnetization dynamics of an in-plane magnetized synthetic ferrimagnetic free layer submitted to spin transfer torques and applied field

Lacoste, B., L.D. Buda-Prejbeanu, U. Ebels and B. Dieny

[Physical Review B](#) **89** (2014) 064408

Modulating spin transfer torque switching dynamics with two orthogonal spin-polarizers by varying the cell aspect ratio

Lacoste, B., M Marins de Castro Souza, T. Devolder, R.C. Sousa, L.D. Buda-Prejbeanu, S. Auffret, U. Ebels, C. Ducruet, I.L. Prejbeanu, L. Vila, B. Rodmacq and B. Dieny

[Physical Review B](#) **90** (2014) 224404

Direct imaging of thermally-activated grain-boundary diffusion in Cu/Co/IrMn/Pt exchange-bias structures using atom-probe tomography

Letellier, F., L. Lechevallier, R. Lardé, J.-M. Le Breton, K. Akmalidinov, S. Auffret, B. Dieny and V. Baltz

[Journal of Applied Physics](#) **116** (2014) 203906

Large and robust electrical spin injection into GaAs at zero magnetic field using an ultrathin CoFeB/MgO injector

Liang, S.H., T.T. Zhang, P. Barate, J. Frougier, M. Vidal, P. Renucci, B. Xu, H. Jaffres, J.-M. George, X. Devaux, M. Hehn, X. Marie, S. Mangin, H.X. Yang, A. Hallal, M. Chshiev, T. Amand, H.F. Liu, D.P. Liu, X.F. Han, Z.G. Wang and Y. Lu

[Physical Review B](#) **90** (2014) 085310

Penetration depth and absorption mechanisms of spin currents in Ir₂₀Mn₈₀ and Fe₅₀Mn₅₀ polycrystalline films by ferromagnetic resonance and spin pumping

Merodio Cámara, P., A. Ghosh, C. Lemonias, E. Gautier, U. Ebels, M. Chshiev, H. Béa, V. Baltz and W.E. Bailey

[Applied Physics Letters](#) **104** (2014) 032406

Spin-modulated torque waves in ferrimagnetic tunnel junctions

Merodio Cámara, P., A. Kalitsov, H. Béa, V. Baltz and M. Chshiev

[Physical Review B](#) **90** (2014) 224422

Spin-dependent transport in antiferromagnetic tunnel junctions

Merodio Cámara, P., A. Kalitsov, H. Béa, V. Baltz and M. Chshiev

[Applied Physics Letters](#) **105** (2014) 122403

Spintronics: No field required

Miron, I.M.

[Nature Nanotechnology](#) **9** (2014) 502

Contribution of Peierls potential to the exchange bias and coercivity of ferromagnetic/antiferromagnetic bilayers

Moritz, J., P. Bacher and B. Dieny

[Physical Review Letters](#) **112** (2014) 087201

Magnetic domain wall coercivity and after-effect in antiferromagnetic/ferromagnetic bilayers

Moritz, J., P. Bacher and B. Dieny

[Physical Review B](#) **90** (2014) 024429

Spin-transfer torque in spin filter tunnel junctions

Pauyac, C.O., A. Kalitsov, A. Manchon and M. Chshiev
[Physical Review B](#) **90** (2014) 235417

Chirality-induced asymmetric magnetic nucleation in Pt/Co/AIO_x ultrathin microstructures

Pizzini, S., J. Vogel, S. Rohart, L.D. Buda-Prejbeanu, E. Jué, O. Boulle, I.M. Miron, C.K. Safeer, S. Auffret, G. Gaudin and A. Thiaville
[Physical Review Letters](#) **113** (2014) 047203

Modulation bandwidth of spin torque oscillators under current modulation

Quinsat, M., F. Garcia-Sanchez, A.S. Jenkins, V.S. Tiberkevich, A.N. Slavin, L.D. Buda-Prejbeanu, A. Zeltser, J.A. Katine, B. Dieny, M.-C. Cyrille and U. Ebels
[Applied Physics Letters](#) **105** (2014) 152401

Self-referenced multi-bit thermally-assisted magnetic random access memories

Stainer, Q., L. Lombard, K. Mackay, D. Lee, S. Bandiera, C. Portemont, C. Creuzet, R.C. Sousa and B. Dieny
[Applied Physics Letters](#) **105** (2014) 032405

The 2014 magnetism roadmap

Stamps, R.L., S. Breitkreutz, J. Åkerman, A.V. Chumak, Y. Otani, G.E.W. Bauer, J.-U. Thiele, M. Bowen, S.A. Majetich, M. Kläui, I.L. Prejbeanu, B. Dieny, N.M. Dempsey and B. Hillebrands
[Journal of Physics D: Applied Physics](#) **47** (2014) 333001

Size dependence of magnetic switching in perpendicularly magnetized MgO/Co/Pt pillars close to the spin reorientation transition

Stefanowicz, W., L.E. Nistor, J. Vogel, W. Kuch, L.D. Buda-Prejbeanu, G. Gaudin, S. Auffret, B. Rodmacq and S. Pizzini
[Applied Physics Letters](#) **104** (2014) 012404

Large exchange bias enhancement in (Pt(or Pd)/Co)/IrMn/Co trilayers with ultrathin IrMn thanks to interfacial Cu dusting

Vinai, G., J. Moritz, S. Bandiera, I.L. Prejbeanu and B. Dieny
[Applied Physics Letters](#) **104** (2014) 162401

IrMn microstructural effects on exchange bias variability in patterned arrays of IrMn/Co square dots

Vinai, G., J. Moritz, G. Gaudin, J. Vogel, I.L. Prejbeanu and B. Dieny
[Journal of Physics D: Applied Physics](#) **47** (2014) 195302

CONFERENCE PROCEEDINGS

Mixing antiferromagnets to tune NiFe-[IrMn/FeMn] interfacial spin-glasses, grains thermal stability, and related exchange bias properties

Akmaldinov, K., C. Ducruet, C. Portemont, I. Jourmard, I.L. Prejbeanu, B. Dieny and V. Baltz

[Journal of Applied Physics](#) **115** (2014) 17B718

Breakdown mechanisms in MgO-based magnetic tunnel junctions and correlation with low frequency noise

Amara-Dababi, S., R.C. Sousa, H. Béa, C. Baraduc, K. Mackay and B. Dieny

Proceedings of the [IEEE International Reliability Physics Symposium](#) (2014) 6A.1.1

Current-induced domain wall dynamics in the presence of spin-orbit torques

Boulle, O., L.D. Buda-Prejbeanu, E. Jué, I.M. Miron and G. Gaudin

[Journal of Applied Physics](#) **115** (2014) 17D502

Effects of the heating current polarity on the writing of thermally assisted switching-MRAM

Chavent, A., J. Alvarez-Hérault, C. Portemont, C. Creuzet, J. Pereira, J. Vidal, K. Mackay, R.C. Sousa, I.L. Prejbeanu and B. Dieny

[IEEE Transactions on Magnetics](#) **50** (2014) 3401504

Double barrier magnetic tunnel junctions with write/read mode select layer

Clément, P.-Y., C. Baraduc, M. Chshiev, B. Dieny, L. Vila and C. Ducruet

Proceedings of the [6th International Memory Workshop](#) (2014)

Field dependence of spin transfer torque switching current in perpendicular magnetic tunnel junctions

Cuchet, L., R.C. Sousa, L. Vila, S. Auffret, B. Rodmacq and B. Dieny

[IEEE Transactions on Magnetics](#) **50** (2014) 4401404

Hybrid CMOS/Magnetic process design kit and SOT-based non-volatile standard cell architectures

Di Pendina, G., K. Jabeur and G. Prenat

Proceedings of the [19th Asia and South Pacific Design Automation Conference](#) (2014) 692

InMRAM: Introductory course on Magnetic Random Access Memories for microelectronics students and engineers

Di Pendina, G., G. Prenat and B. Dieny

Proceedings of the [10th European Workshop on Microelectronics Education](#) (2014) 21

High performance spin-orbit torque (SOT) based on non-volatile standard cell for hybrid CMOS/magnetic ICs

Jabeur, K., G. di Pendina and G. Prenat

Proceedings of the [International Conference on Advanced Technology and Sciences](#) (2014) 309

Spin-orbit torque (SOT) nanodevices for ultra energy-efficient and non-volatile applications

Jabeur, K., G. di Pendina and G. Prenat

Proceedings of the [International Conference and Exhibition on Nanoscience and Nanotechnology](#) (2014)

Field-current phase diagrams of in-plane STT-RAM cells with low effective magnetization storage layers

San Emeterio Alvarez, L., B. Lacoste, B. Rodmacq, L.E. Nistor, M. Pakala, R.C. Sousa and B. Dieny

[Journal of Applied Physics](#) **115** (2014) 17C713

Nitrogen-vacancy-center imaging of bubble domains in a 6-Å film of cobalt with perpendicular magnetization

Tetienne, J.-P., T. Hingant, L. Rondin, S. Rohart, A. Thiaville, E. Jué, G. Gaudin, J.-F. Roch and V. Jacques

[Journal of Applied Physics](#) **115** (2014) 17D501

Focussed Kerr measurements on patterned arrays of exchange-biased square dots

Vinai, G., J. Moritz, G. Gaudin, J. Vogel, I.L. Prejbeanu and B. Dieny

[EPJ WEB of Conferences](#) **75** (2014) 05003

2013

BOOK SECTIONS

Spintronic phenomena: Giant Magnetoresistance, Tunnel Magnetoresistance and Spin transfer torque

Baraduc, C., M. Chshiev and B. Dieny

[Giant Magnetoresistance Sensors](#), C. Reig, S. Cardoso and S.C. Mukhopadhyay Eds., Springer (2013)

JOURNAL ARTICLES

Benefit of inserting a (Cu/Pt) intermixing dual barrier for the blocking temperature distribution of exchange-biased Co/(Cu/Pt)/IrMn stacks

Akmaldinov, K., S. Auffret, I. Joumard, B. Dieny and V. Baltz

[Applied Physics Letters](#) **103** (2013) 042415

Correlation between write endurance and electrical low-frequency noise in MgO-based magnetic tunnel junctions

Amara-Dababi, S., H. Béa, R.C. Sousa, C. Baraduc and B. Dieny

[Applied Physics Letters](#) **102** (2013) 052404

Detection of microwave phase variation in nanometre-scale magnetic heterostructures

Bailey, W.E., C. Cheng, R. Knut, O. Karis, S. Auffret, S. Zohar, D. Keavney, P. Warnicke, J.S. Lee and D.A. Arena

[Nature Communications](#) **4** (2013) 2025

Thermally-driven asymmetric responses of grains versus spin-glass-related distributions of blocking temperature in exchange-biased Co/IrMn bilayers

Baltz, V.

[Applied Physics Letters](#) **102** (2013) 062410

Effect of a Cu spacer between Co and Pt layers on the structural and magnetic properties of (Co/Cu/Pt)_n/Pt-type multilayers

Bandiera, S., R.C. Sousa, B. Rodmacq, L. Lechevallier and B. Dieny

[Journal of Physics D: Applied Physics](#) **46** (2013) 485003

Electric field control of domain wall nucleation and pinning in a metallic ferromagnet

Bernand-Mantel, A., L. Herrera Diez, L. Ranno, S. Pizzini, J. Vogel, D. Givord, S. Auffret, O. Boulle, I.M. Miron and G. Gaudin

[Applied Physics Letters](#) **102** (2013) 122406

Domain wall tilting in the presence of the Dzyaloshinskii-Moriya interaction in out-of-plane magnetized magnetic nanotracks

Boulle, O., S. Rohart, L.D. Buda-Prejbeanu, E. Jué, I.M. Miron, S. Pizzini, J. Vogel, G. Gaudin and A. Thiaville

[Physical Review Letters](#) **111** (2013) 217203

Magnetization reversal in sub-100nm magnetic tunnel junctions with ultrathin MgO barrier biased along the hard axis

Cascales, J.P., D. Herranz, J.L. Sambricio, U. Ebels, J.A. Katine and F.G. Aliev

[Applied Physics Letters](#) **102** (2013) 092404

Influence of a Ta spacer on the magnetic and transport properties of perpendicular magnetic tunnel junctions

Cuchet, L., B. Rodmacq, S. Auffret, R.C. Sousa, C. Ducruet and B. Dieny

[Applied Physics Letters](#) **103** (2013) 052402

Emerging non-volatile memories: Magnetic and resistive technologies

Dieny, B. and C. Jagadish

[Journal of Physics D: Applied Physics](#) **46** (2013) 070301

Spin torque nano-oscillator based on a synthetic antiferromagnet free layer and a perpendicular-to-plane polarizer

Firastrau, I., L.D. Buda-Prejbeanu, B. Dieny and U. Ebels

[Journal of Applied Physics](#) **113** (2013) 113908

Anisotropic intrinsic spin relaxation in graphene due to flexural distortions

Fratini, S., D. Gosálbez Martínez, P. Merodio Cámara and J. Fernández Rossier

[Physical Review B](#) **88** (2013) 115426

Competition between CoO_x and CoPt phases in Pt/Co/AlO_x semi-tunnel junctions

Garad, H.M., L. Ortega, A.Y. Ramos, Y. Joly, F. Fettar, S. Auffret, B. Rodmacq, B. Dieny, O. Proux and A.I. Erko

[Journal of Applied Physics](#) **114** (2013) 053508

Symmetry and magnitude of spin-orbit torques in ferromagnetic heterostructures

Garello, K., I.M. Miron, C.O. Avci, F. Freimuth, Y. Mokrousov, S. Blügel, S. Auffret, O. Boulle, G. Gaudin and P. Gambardella

[Nature Nanotechnology](#) **8** (2013) 587

Anatomy of perpendicular magnetic anisotropy in Fe/MgO magnetic tunnel junctions: First-principles insight

Hallal, A., H.X. Yang, B. Dieny and M. Chshiev

[Physical Review B](#) **88** (2013) 184423

Extraordinary Hall effect in Pt- or Ni-based multilayer stacks with strong perpendicular magnetic anisotropy

Heinen, J., T. Schulz, G. Jakob, M. Kläui, O. Boulle, G. Malinowski, H. Swagten, B. Koopmans, C. Ulysse, G. Faini, B. Ocker, J. Wrona, S.-M. Ahn, N.-M. Nguyen and D. Ravelosona

[Journal of the Korean Physical Society](#) **62** (2013) 1399

Ferroelectric control of magnetic domains in ultra-thin cobalt layers

Huang, Z., I. Stolichnov, A. Bernard-Mantel, J. Borrel, S. Auffret, G. Gaudin, O. Boulle, S. Pizzini, L. Ranno, L. Herrera Diez and N. Setter

[Applied Physics Letters](#) **103** (2013) 222902

Spin torque in magnetic tunnel junctions with asymmetric barriers

Kalitsov, A., W. Silvestre, M. Chshiev and J.P. Velev

[Physical Review B](#) **88** (2013) 104430

Bias dependence of tunneling magnetoresistance in magnetic tunnel junctions with asymmetric barriers

Kalitsov, A., P.-J. Zermatten, F. Bonell, G. Gaudin, S. Andrieu, C. Tiusan, M. Chshiev and J.P. Velev

[Journal of Physics: Condensed Matter](#) **25** (2013) 496005

Out-of-plane precession of an in-plane magnetized free layer submitted to the spin transfer torque of a perpendicular polarizer: An analytical perturbative approach

Lacoste, B., L.D. Buda-Prejbeanu, U. Ebels and B. Dieny

[Physical Review B](#) **88** (2013) 0544250

Comparison of dispersion and actuation properties of vortex and synthetic antiferromagnetic particles for biotechnological applications

Leulmi, S., H. Joisten, T. Dietsch, C. Iss, M. Morcrette, S. Auffret, P. Sabon and B. Dieny

[Applied Physics Letters](#) **103** (2013) 132412

Spin Hall effect induced by Bi impurities in Cu: Skew scattering and side-jump

Levy, P.M., H.X. Yang, M. Chshiev and A. Fert

[Physical Review B](#) **88** (2013) 214432

Tunability versus deviation sensitivity in a non-linear vortex oscillator

Martin, S., C. Thirion, C. Hoarau, C. Baraduc and B. Dieny

[Physical Review B](#) **88** (2013) 024421

Macrospin model of precessional spin transfer torque switching in planar magnetic tunnel junctions with perpendicular polarizer

Mejdoubi, A., B. Lacoste, G. Prenat and B. Dieny

[Applied Physics Letters](#) **102** (2013) 152413

Spatially periodic domain wall pinning potentials: Asymmetric pinning and dipolar biasing

Metaxas, P.J., P.-J. Zermatten, R.L. Novak, S. Rohart, J.-P. Jamet, R. Weil, J. Ferré, A. Mougin, R.L. Stamps, G. Gaudin, V. Baltz and B. Rodmacq
[Journal of Applied Physics](#) **113** (2013) 073906

Red-shift and blue-shift regimes in spin torque nano-oscillators based on synthetic antiferromagnetic layers

Montebianco, E., D. Gusakova, J.F. Sierra Garcia, L.D. Buda-Prejbeanu and U. Ebels
[IEEE Magnetics Letters](#) **4** (2013) 3500204

Angular dependence and symmetry of Rashba spin torque in ferromagnetic heterostructures

Pauyac, C.O., X.H. Wang, M. Chshiev and A. Manchon
[Applied Physics Letters](#) **102** (2013) 252403

Thermally assisted MRAMs: Ultimate scalability and logic functionalities

Prejbeanu, I.L., S. Bandiera, J. Alvarez-Hérault, R.C. Sousa, B. Dieny and J.-P. Nozières
[Journal of Physics D: Applied Physics](#) **46** (2013) 070301

Spontaneous anomalous and spin Hall effects due to spin-orbit scattering of evanescent wave functions in magnetic tunnel junctions

Vedyaev, A., N. Ryzhanova, N. Strelkov and B. Dieny
[Physical Review Letters](#) **110** (2013) 247204

Enhanced blocking temperature in (Pt/Co)₃/IrMn/Co and (Pd/Co)₃/IrMn/Co trilayers with ultrathin IrMn layer

Vinai, G., J. Moritz, S. Bandiera, I.L. Prejbeanu and B. Dieny
[Journal of Physics D: Applied Physics](#) **46** (2013) 322001

Magnetic properties of patterned arrays of exchange-biased IrMn/Co square dots

Vinai, G., J. Moritz, G. Gaudin, J. Vogel, M. Bonfim, F. Lançon, I.L. Prejbeanu, K. Mackay and B. Dieny
[Journal of Physics D: Applied Physics](#) **46** (2013) 345308

Proximity effects induced in graphene by magnetic insulators: First-principles calculations on spin filtering and exchange-splitting gaps

Yang, H.X., A. Hallal, D. Terrade, X. Waintal, S. Roche and M. Chshiev
[Physical Review Letters](#) **110** (2013) 046603

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Breakdown mechanisms in MgO-based magnetic tunnel junctions and correlation with low-frequency noise

Amara-Dababi, S., R.C. Sousa, H. Béa, C. Baraduc, K. Mackay and B. Dieny
[Microelectronics Reliability](#) **53** (2013) 1239

Non-volatile FPGAs based on spintronic devices

Gonçalves, O., G. Prenat, G. di Pendina and B. Dieny
Proceedings of the [50th Annual Design Automation Conference](#) (2013) 126

Non-volatile runtime-reconfigurable FPGA secured through MRAM-based periodic refresh

Gonçalves, O., G. Prenat, G. di Pendina, C. Layer and B. Dieny
Proceedings of the [5th IEEE International Memory Workshop](#) (2013) 170

Radiation-hardened MRAM-based FPGA

Gonçalves, O., G. Prenat and B. Dieny
[IEEE Transactions on Magnetism](#) **49** (2013) 4355

Compact model of a three-terminal MRAM device based on spin-orbit torque switching

Jabeur, K., G. Prenat, G. di Pendina, L.D. Buda-Prejbeanu, I.L. Prejbeanu and B. Dieny
Proceedings of the [International Semiconductor Conference Dresden-Grenoble](#) (2013)

Scalability and logic functionalities of TA-MRAMs

Prejbeanu, I.L., R.C. Sousa, B. Dieny, J.-P. Nozières, S. Bandiera, J. Alvarez-Hérault, Q. Stainer, L. Lombard, C. Ducruet, Y. Conraux and K. Mackay
Proceedings of the [11th International New Circuits and Systems Conference](#) (2013) 6573618

Magnetic logic functionalities and scalability of thermally-assisted MRAMs

Prejbeanu, I.L., R.C. Sousa, B. Dieny, J.-P. Nozières, S. Bandiera and K. Mackay
Proceedings of the [12th Low Voltage-Low Power Conference](#) (2013) 6577786

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