

## PUBLICATIONS LIST

SUMMARY	137 articles in Web of Science and/or Scopus, with more than 3000 citations, h index = 28 Orcid number: <a href="https://orcid.org/0000-0002-2945-4909">https://orcid.org/0000-0002-2945-4909</a> . Research gate: <a href="https://www.researchgate.net/profile/D-Altbir">https://www.researchgate.net/profile/D-Altbir</a>
2022	<p>G.H.R., Bittencourt, S. Castillo-Sepúlveda, O. Chubykalo-Fesenko, R. Moreno, D. Altbir, and V.L. Carvalho-Santos; “Domain wall damped harmonic oscillations induced by curvature gradients in elliptical magnetic nanowires”, <i>Physical Review B</i> 106, 174424 (2022).</p> <p>S. Castillo-Sepúlveda, S., J.A. Vélez, R.M Corona, V.L. Carvalho-Santos, D. Laroze, and D. Altbir; “Skyrmion dynamics in a double-disk geometry under an electric current: Part two”, <i>Nanomaterials</i> 12, 3793 (2022).</p> <p>S. Castillo-Sepúlveda, S., J.A. Vélez, R.M Corona, V.L. Carvalho-Santos, D. Laroze, and D. Altbir; “Skyrmion dynamics in a double-disk geometry under an electric current”, <i>Nanomaterials</i> 12, 3086 (2022).</p> <p>G.H.R., Bittencourt, O. Chubykalo-Fesenko, D. Altbir, V.L. Carvalho-Santos, and R. Moreno; “Area law for magnetic domain walls in bent cylindrical nanowires”, <i>Physical Review B</i> 106, 094410 (2022).</p> <p>E. Saavedra, S. Castillo-Sepúlveda, R.M. Corona, D. Altbir, J. Escrig, V.L. Carvalho-Santos, “Influence of curvature on the dynamical susceptibility of bent nanotubes”, <i>Results in Physics</i> 35, 105290 (2022).</p> <p>R. Moreno, V.L. Carvalho-Santos, D. Altbir, O. Chubykalo-Fesenko, “Detailed examination of domain wall types, their widths and critical diameters in cylindrical magnetic nanowires”, <i>Journal of Magnetism and Magnetic Materials</i> 542, 168495 (2022).</p>
2021	<p>S. Castillo-Sepúlveda, R. Cacilhas, V.L. Carvalho-Santos, R.M. Corona, D. Altbir, “Magnetic hopfions in toroidal nanostructures driven by an Oersted magnetic field”, <i>Physical Review B</i> 104, 184406 (2021).</p> <p>A. W. Teixeira, S. Castillo-Sepulveda, L. G. Rizzi, A. S. Nuñez, R. E. Troncoso, D. Altbir, J. M. Fonseca, V. L. Carvalho-Santos, “Motion-induced inertial effects and topological phase transitions in skyrmion transport” <i>Journal of Physics-Condensed Matter</i> 33, 265403 (2021).</p> <p>V. L. Carvalho-Santos, M. A. Castro, D. Salazar-Aravena, D. Laroze, R. M. Corona, S. Allende, D. Altbir, “Skyrmion propagation along curved racetracks”, <i>Applied Physics Letters</i> 118, 172407 (2021).</p> <p>S. Vojkovic, R. Cacilhas, A. R. Pereira, D. Altbir, A. S. Nuñez, V. L. Carvalho-Santos, “Scattering modes of skyrmions in a bilayer system with ferromagnetic coupling”, <i>Nanotechnology</i> 32, 175702 (2021).</p> <p>G. H. R. Bittencourt, R. Moreno, R. Cacilhas, S. Castillo-Sepulveda, O. Chubykalo-Santos, “Curvature-induced emergence of a second critical field for domain wall dynamics in bent nanostripes”, <i>Applied Physics Letters</i> 118, 142405 (2021).</p> <p>E. H. D. P. Sinnecker, J. M. Garcia-Martin, D. Altbir, J. D. E. Castro, J. P. Sinnecker, “Magnetic Force Microscopy Study of Patterned T-Shaped Structures”, <i>Materials</i> 14, 1567 (2021).</p> <p>R. M. Corona, S. Castillo-Sepulveda, D. Altbir, J. Escrig, “Controlling domain wall chirality by combining hard and soft magnetic materials in planar nanostructures with wire-ring morphology”, <i>Current Applied Physics</i> 21, 180-183 (2021).</p>
2020	<p>A.S. Araujo, R.J.C. Lopes, V.L. Carvalho-Santos, A.R. Pereira, R.L. Silva, R.C. Silva, D. Altbir, “Typical skyrmions versus bimerons: A long-distance competition in ferromagnetic racetracks”, <i>Physical Review B</i> 102, 104409 (2020).</p> <p>E. Saavedra, R.M. Corona, N. Vidal-Silva, J.L. Palma, D. Altbir, J. Escrig, “Dynamic and static properties of stadium-shaped antidot arrays”, <i>Scientific Reports</i> 10, 20224 (2020)</p>

V. Carvalho-Santos, R.M. Corona, D. Altbir, S. Castillo-Sepúlveda, "Shifts in the skyrmion stabilization due to curvature effects in dome- and antidome-shaped surfaces", Physical Review B 102, 024444 (2020).

D. Altbir, J. M, Fonseca, O. Chubykalo-Fesenko, R. Corona, R. Moreno, V. Carvalho-Santos, and Y.P. Ivanov, "Tuning domain wall dynamics by shaping nanowires cross-sections", Scientific Reports 10, 21911 (2020).

R. Cacilhas, C. I. L Araujo, V. L. Carvalho-Santos, R. Moreno, O. Chubykalo-Fesenko, and D. Altbir, "Controlling domain wall oscillations in bent cylindrical magnetic wires", Physical Review B 101, 184418 (2020).

J. d'Albuquerque e Castro, D. Altbir, A.O. Leon, J.C. Retamal, "Phase-shift control of the exchange coupling between magnetic impurities", Nanotechnology 31, 355002 (2020).

S. Castillo-Sepúlveda, Corona, R. M., Landeros P.& D. Altbir, "Domain walls in curved thin surfaces", Journal of Magnetism and Magnetic Materials 500, 166322 (2020).

D. Mancilla-Almonacid, M.A. Castro, J.M. Fonseca, D. Altbir, S. Allende, V.L. Carvalho-Santos, "Magnetic ground states for bent nanotubes", Journal of Magnetism and Magnetic Materials 507, 166754 (2020).

---

**2019** Alejandro O. Leon, Jose d'Albuquerque e Castro, Juan C. Retamal, Adam B. Cahaya and Dora Altbir, "Manipulation of the RKKY exchange by voltages", Physical Review B 100, 014403 (2019).

N. Vidal-Silva, A. Riveros, F. Tejo, J. Escrig and D. Altbir, "Controlling the nucleation and annihilation of skyrmions with magnetostatic interactions", Applied Physics Letters 115, 082405 (2019).

S. Castillo-Sepúlveda, R. M. Corona, A. S. Nuñez, and D. Altbir , "Twisted skyrmions through dipolar interactions", Journal of Magnetism and Magnetic Materials, 484, 451 (2019).

Mario A. Castro, A.P. Espejo, N.M. Vargas, D. Altbir, S. Allende, and V. L. Carvalho-Santos, "New magnetic states in nanorings created by anisotropy gradients", Journal of Magnetism and Magnetic Materials 484, 55 (2019).

A.W. Teixeira, S. Castillo-Sepúlveda, S. Vojkovic, J.M. Fonseca, D. Altbir, Á.S. Núñez, and V.L. Carvalho-Santos, "Analysis on the stability of in-surface magnetic configurations in toroidal nanoshells", Journal of Magnetism and Magnetic Materials 478, 253 (2019).

D. Mancilla-Almonacid, Alejandro O. Leon, R. E. Arias, S. Allende, and D. Altbir, "Synchronization of two spin-transfer-driven nano-oscillators coupled via magnetostatic fields", Physical Review E 99, 032210 (2019).

---

**2018** Alejandro O. Leon, Marcel G. Clerc and D. Altbir, "Dissipative magnetic breathers induced by time-modulated voltages", Physical Review E 98, 062213 (2018).

R. Cacilhas, V. L. Carvalho-Santos, S. Vojkovic, E. B. Carvalho, A. R. Pereira, D. Altbir, and A. S. Nuñez, "Coupling of skyrmions mediated by the RKKY interaction", Applied Physics Letters 113, 212406 (2018).

D. Mancilla-Almonacid, R.E. Arias, D. Altbir, and S. Allende, "Spin wave modes of two magnetostatic coupled spin transfer torque oscillators", Journal of Applied Physics 124,162102 (2018).

J. Mejía-López, E.A. Velásquez, J. Mazo-Zuluaga, and D. Altbir, "Thermal gradients for the stabilization of a single domain wall in magnetic nanowires", Nanotechnology 29, 345702, 5PP (2018)

---

**2017** D. Mancilla-Almonacid, R.E. Arias, S. Oyarzún, D. Altbir, and S. Allende, "Tuning the frequencies of the normal modes of a nanopillar oscillator through the magnetostatic interction", Physical Review B 96, 18442 (2017).

R. Moreno, V.C. Santos, A. Espejo and D. Altbir, "Oscillatory behavior of the domain Wall dynamics in a curved cylindrical magnetic nanowire", Physical Review B 96, 184401 (2017).

S. Castillo-Sepúlveda, R. A. Escobar, D. Altbir, and E. Y. Vedmedenko, "Magnetic Möbius stripe without frustration: Noncollinear metastable states, Physical Review B 96, 024426 (2017).

Rosa M. Corona, Ali C. Basaran, Juan Escrig, and Dora Altbir, "Unusual behavior of the magnetization reversal in soft/hard multisegmented nanowires", Journal of Magnetism and Magnetic Materials 438, 168 (2017).

R. A. Escobar, S. Castillo-Sepúlveda, S. Allende, and D. Altbir, Philip Sergelius, D. Görlitz, and K. Nielsch, "Towards independent behavior of magnetic slabs", IEEE Magnetics Letters 8, 4104505 (2017).

P. Sergelius, J. Hyun Lee, O. Fruchart, M. Shaker Salem, S. Allende, R.A. Escobar, J. Gooth, R. Zierold, J-C. Toussaint, S. Schneider, D. Pohl, B. Rellinghaus, S. Martin, J. García, H. Reith, A. Spende, M-E. Toimil-Morales, D. Altbir, R. Cowburn, D. Görlitz, and K. Nielsch, "Intra-wire coupling in segmented Ni/Cu nanowires deposited by electrodeposition", Nanotechnology 28, 065709 (2017).

O.J. Suárez, D. Laroze, J. Martínez-Mardones, D. Altbir, and O. Chubykalo-Fesenko, "Chaotic dynamics of a magnetic particle at finite temperature", Physical Review B 95, 014404 (2017).

R.A. Escobar, E. Lage, J. d'Albuquerque e Castro, D. Altbir, and C.A. Ross, "Geometry dependence of the magnetization reversal process in bridged dots", Journal of Magnetism and Magnetic Materials 432, 304 (2017).

---

**2016** J. Mazo-Zuluaga, E.A. Velásquez, D. Altbir, and J. Mejía-López, "Controlling domain wall nucleation and propagation with temperature gradients", Applied Physics Letters 109, 122408 (2016).

S. Castillo-Sepúlveda, R.M. Corona, D. Altbir, and J. Escrig, "Magnetic properties of mosaic nanocomposites composed of nickel and cobalt nanowires", Journal of Magnetism and Magnetic Materials 416, 325 (2016).

S. Vojkovic, A. Nuñez, D. Altbir, and V. L. Carvalho-Santos, "Magnetization ground state and reversal modes of magnetic nanotori", Journal of Applied Physics 120, 033901 (2016).

R. A. Escobar, L. Tryputen, S. Castillo-Sepúlveda, D. Altbir, S. Chung, T. N. Anh Nguyen, M. S. Mohseni, J. Akerman, and C. A. Ross, "Monte Carlo modeling of mixed-anisotropy [Co/Ni]2/NiFemultilayers", IEEE Magnetics Letters 7, 4101205, (2016).

N. Arancibia-Miranda, S. Baltazar, A. García, D. Munoz-Lira, P. Sepúlveda, M.A. Rubio, and D. Altbir, "Nanoscale zero valent supported by zeolite and montmorillonite: Template effect of the removal of lead ion from an aqueous solution", Journal of Hazardous Materials 301, 371 (2016).

A. Riveros, N. Vidal-Silva, P. Landeros, D. Altbir, E. Vogel, and J. Escrig, "Magnetic vortex core in cylindrical nanostructures: Looking for its stability interms of geometric and magnetic parameters", Journal of Magnetism and Magnetic Materials 401, 848 (2016).

---

**2015** O.J. Suarez, P. Nieves, D. Laroze, D. Altbir, and O. Chubykalo-Fesenko, "Ultra-fast relaxation rates and reversal time in disordered ferrimagnets", Physical Review B 92, 144425 (2015).

S. Allende, D. Altbir, and J.C. Retamal, "Simulated annealing and entanglement of formation for (n m)-dimensional mixed states", Physical Review A 92, 022348 (2015).

R. A. Escobar, S. Castillo-Sepúlveda, S. Allende, D. Altbir, M. Bahiana, and J. d'Albuquerque e Castro, "Multi-stability in low-symmetry magnetic nanoparticles", Journal of Applied Physics 117, 223901 (2015).

E. Vargas, W.W. M. Melo, S. Allende, R.F. Neumann, J.C. Denardin, D. Altbir, and M. Bahiana, "Dipolar-driven formation of cobalt nanoparticle chains in polyethylene films", Materials Chemistry and Physics 162, 229 (2015).

V.C. Santos, G. Elias, J. Fonseca, and D. Altbir, "Stability of skyrmions on curved surfaces in the presence of a magnetic field", Journal of Magnetism and Magnetic Materials 391, 179 (2015).

S. K. Sharma, J. M. Vargas, N. M. Vargas, S. Castillo-Sepúlveda, D. Altbir, K. R. Pirota, R. Zboril, G. Zoppellaro, and M. Knobel, "Unusual magnetic damping effect in silver-cobalt ferrite hetero nano-system", RSC Advances 5, 17117 (2015).

R. F. Neumann, M. Bahiana, S. Allende, D. Altbir, D. Görlitz, and K. Nielsch "Tailoring the nucleation of domain walls along multi-segmented cylindrical nanoelements", Nanotechnology 26, 215701 (2015).

V. L. Carvalho-Santos, P. R. G. Elias, J. M. Fonseca, and D. Altbir, "Curvature-induced changes in the magnetic energy of vortices and skyrmions in paraboloidal nanoparticles", Journal of Applied Physics 117, 17E518 (2015).

P.S.C. Vilas-Boas, R. G. Elias, D. Altbir, J. M. Fonseca, and V. L. Carvalho-Santos, "Topological magnetic solitons on a paraboloidal shell", Physics Letters A379 (1-2), 47 (2015).

---

**2014** N. Arancibia-Miranda, S. Baltazar, A. García, A. H. Romero, M. A. Rubio, and D. Altbir, "Lead removal by nano-scale zero valent iron: surface analysis and pH effect", Materials Research Bulletin 59, 341 (2014).

S. Castillo-Sepúlveda, N. M. Vargas, R. Escobar, S. Allende, S. Baltazar, and D. Altbir, "Reversal modes in small rings: Signature on the susceptibility", Journal of Applied Physics 115, 223903 (2014).

F. Torres, D. Altbir, and M. Kiwi, "Dzyaloshinskii-Moriya interaction and magnetic ordering in 1D and 2D at nonzero T", Europhysics Letters 106, 47004 (2014).

S. Baltazar, A. García, A. H. Romero, M. A. Rubio, N. Arancibia-Miranda, and D. Altbir "Surface rearrangement of nanoscale Zero Valent Iron: The role of pH and its implications in the kinetics of removal of arsenate", Environmental Technology 35, 2365 (2014).

E. A. Velásquez, J. Mazo-Zuluaga, J. Mejía-López, and D. Altbir, "Ornstein-Zernike correlations and magnetic ordering in nanostructures", European Journal of Physics 87, 61 (2014).

R. A. Escobar, N. M. Vargas, S. Castillo-Sepúlveda, S. Allende, D. Altbir, and J. d'Albuquerque e Castro. "Complex magnetic reversal modes in low-symmetry nanoparticles". Applied Physics Letters 104, 123102 (2014).

S. Allende, J.C. Retamal, D. Altbir, and J. d' Albuquerque e Castro, "Domain wall magnetoresistance in nanowires: Dependence on geometrical factors and material parameters", Journal of Magnetism and Magnetic Materials 365, 197 (2014).

---

**2013** E.R.P. Novais, S. Allende, D. Altbir, P. Landeros, F. Garcia, and A.P. Guimaraes, "Effect of perpendicular uniaxial anisotropy on the annihilation fields of magnetic vortices", Journal of Applied Physics 114, 153905 (2013).

E. A. Velásquez, D. Altbir, J. Mazo-Zuluaga, L. F. Duque, and J. Mejía-López, "Searching for the nanoscopic-macroscopic boundary", Journal of Magnetism and magnetic materials 348, 154 (2013).

C. Vilos, M. Gutiérrez, R. Escobar, F. Morales, J. Denardin, L. Velásquez, and D. Altbir, "Superparamagnetic Poly(3-hydroxybutyrate-co-3-hydroxyvalerate)(PHBV) nanoparticles for biomedical applications", Journal of Biotechnology 16, 8 (2013).

R. F. Neumann, M. Bahiana, N.M. Vargas, D. Altbir, S. Allende, D. Gorlitz, and K. Nielsch, "Domain wall control in wire-tube nanoelements", Applied Physics Letters 102, 202407 (2013).

F. Muñoz, M. Kiwi, D. Altbir, and J. L. Morán-López, "Properties of Fe(8-n) Co(n) nanoribbons and nanowires: a DFT approach", Journal of Magnetism and Magnetic Materials 339, 75 (2013).

- 2012**
- R. M. Corona, D. Altbir, and J. Escrig, “Magnetic properties of elliptical and stadium-shaped nanoparticles: Effect of the shape anisotropy”, *Journal of Magnetism and Magnetic Materials* 324, 3824 (2012).
- S. Castillo, N. Vargas, D. Altbir, and S. Allende, “Mechanisms of magnetization reversal in stadium-shaped particles”, *Journal of Applied Physics* 112, 083906 (2012).
- S. Allende, N.M. Vargas, D. Altbir, V. Vega, D. Görlitz, and K. Nielsch, “Magnetization reversal in multisegmented nanowires: Parallel and serial reversal modes”, *Applied Physics Letters* 101, 122412 (2012).
- O. Suárez, L. M. Pérez Fuentes, D. Laroze, and D. Altbir, “Magnetostatic interactions in cylindrical nanostructures with non-uniform magnetization”, *Journal of Magnetism and Magnetic Materials* 324, 1698 (2012).
- C. Morales-Concha, M. Ossandón, A. Pereira, D. Altbir, and J. Escrig, “General approach to the magnetostatic force and interaction between cylindrically shaped nanoparticles”, *Journal of Applied Physics* 111, 07D131 (2012).
- L. G. Vivas, M. Vazquez, J. Escrig, S. Allende, D. Altbir, D. C. Leitao, and J. P. Araujo, “Magnetic anisotropy in CoNi nanowire arrays: analytical calculations and experiments”, *Physical Review B* 85, 035439 (2012).
- R. F. Neumann, M. Bahiana, S. Allende, J. Escrig, and D. Altbir “Confinement of magnetic nanoparticles inside multisegmented nanotubes by means of magnetic field gradients”, *Journal of Applied Physics* 111, 013916 (2012).
- J. L. Palma, C. Morales-Concha, B. Leighton, D. Altbir, and J. Escrig, “Micromagnetic simulation of Fe asymmetric nanorings”, *Journal of Magnetism and Magnetic Materials* 324, 637 (2012).
- 
- 2011**
- N. M. Vargas, S. Allende, B. Leighton, J. Escrig, J. Mejía-López, D. Altbir, and I.K. Schuller, “Asymmetric magnetic dots: A way to control magnetic properties”, *Journal of Applied Physics* 109, 073907 (2011).
- B. Leighton, N. M. Vargas, D. Altbir, and J. Escrig, “Tailoring the magnetic properties of asymmetric nanodots”, *Journal of Magnetism and Magnetic Materials*, 323, 1563 (2011).
- R. F. Neumann, M. Bahiana, J. Escrig, S. Allende, and D. Altbir, “Stability of magnetic nanoparticles inside ferromagnetic nanotubes”, *Applied Physics Letters* 98, 022502 (2011).
- 
- 2010**
- J. Mejía-López, D. Altbir, P. Landeros, J. Escrig, A.H. Romero, Igor V. Roschnin, C. P. Li, M. R. Fitzsimmons, X. Battle, and Iván K. Schuller, “Development of vortex state in circular magnetic nanodots: Theory and experiment”, *Physical Review B* 81, 184417 (2010).
- M. Gutiérrez, M. Escudey, J. Escrig, J. C. Denardin, D. Altbir, J. D. Fabris, L.C.D. Cavalcante, and M. T. García-González, “Preparation and characterization of magnetic composites based on a natural zeolite”, *Clays and Clay Minerals* 58, 589 (2010).
- 
- 2009**
- R. Lavin, J.C. Denardin, J. Escrig, D. Altbir, A. Cortes, and H. Gomez, “Angular dependence of magnetic properties in Ni nanowire arrays”, *Journal of Applied Physics* 106, 103903 (2009).
- S. Allende, D. Altbir, and K. Nielsch. “Magnetic cylindrical nanowires with single modulated diameter”, *Physical Review B*. 80, 174402 (2009).
- S. Allende, J. Escrig, E. Salcedo, D. Altbir, and M. Bahiana, “Asymmetric hysteresis loop in magnetostatic-biased multilayer nanowires”, *Nanotechnology* 20, 445707 (2009).
- Igor V. Roshchin, Chang-Peng Li, Harry Suhl, Xavier Battle, S. Roy, Sunil K. Sinha, S. Park, Roger Pynn, M. R. Fitzsimmons, Jose Mejía López, D. Altbir, A. H. Romero, and Ivan K. Schuller, “Measurement of the vortex core in sub-100 nm Fe dots using polarized neutron scattering”, *Europhysics Letters* 86, 67008 (2009).

J. Escrig, S. Allende, D. Altbir, M. Bahiana, J. Torrejón, G. Badini, and M. Vásquez, "Magnetostatic bias in multilayer microwires: Theory and experiments", Journal of Applied Physics 105, 023907 (2009).

J. Bachman, J. Escrig, K. Pitzschel, J.M. Montero, J. Jing, D. Görlitz, D. Altbir, and K. Nielsch, "Size effects in ordered arrays of magnetic nanotubes: Pick your reversal mode", Journal of Applied Physics 105, 07B521 (2009).

---

**2008** J. Escrig, J. Bachmann, J. Jing, M. Daub, D. Altbir, and K. Nielsch, "Crossover between two different magnetization reversal modes in arrays of iron oxide nanotubes", Physical Review B 77, 214421 (2008).

J. Escrig, R. Lavín, J.L. Palma, J.C. Denardin, D. Altbir, A. Cortés, and H. Gómez, "Geometry dependence of coercivity in Ni nanowire arrays", Nanotechnology 19, 075713 (2008).

S. Allende, J. Escrig, D. Altbir, E. Salcedo, M. Bahiana, and J.P. Sinnecker, "Propagation of transverse domain walls in homogeneous magnetic nanowires", Journal of Applied Physics 104, 013907 (2008).

S. Allende, J. Escrig, and D. Altbir, "Angular dependence of the transverse and vortex modes in magnetic nanotubes", The European Physical Journal B 66, 37 (2008).

R. Lavín, J. C. Denardin, J. Escrig, D. Altbir, A. Cortés, and H. Gómez, "Magnetic characterization of nanowire arrays using first order reversal curves", IEEE Transactions on Magnetics 44, 11 (2008).

J. Escrig, S. Allende, D. Altbir, M. Bahiana, "Magnetostatic interactions between magnetic nanotubes", Applied Physics Letters 93, 023101 (2008)

---

**2007** M. Daub, J. Bachmann, J. Jing, M. Knez, U. Gosele, S. Barth, S. Mathur, J. Escrig, D. Altbir, and K. Nielsch, "Ferromagnetic nanostructures by atomic layer deposition: From thin films towards core-shell nanotubes", ECS Transactions 11, 139 (2007).

D. Altbir, J. Escrig, P. Landeros, F. S. Amaral, and M. Bahiana, "Vortex core size in interacting cylindrical nanodots arrays", Nanotechnology 18, 485707 (2007).

J. Escrig, M. Daub, P. Landeros, K. Nielsch, and D. Altbir, "Angular dependence of coercivity in magnetic nanotubes", Nanotechnology 18, 445706 (2007).

J. Escrig, D. Altbir, M. Jafaar, D. Navas, A. Asenjo, and M. Vázquez, "Remanence of Ni nanowire arrays: Influence of size and labyrinth magnetic structure", Physical Review B 75, 184429 (2007).

D. Laroze, J. Escrig, P. Landeros, D. Altbir, M. Vázquez, and P. Vargas, "A detailed analysis of dipolar interactions in arrays of bi-stable magnetic nanowires", Nanotechnology 18, 415708 (2007).

J. Escrig, P. Landeros, D. Altbir, M. Bahiana, and J. d'Albuquerque e Castro, "Role of interactions in layered nanorings", International Journal of Nanotechnology 4, 531 (2007).

P. Landeros, S. Allende, J. Escrig, E. Salcedo, D. Altbir, and E. E. Vogel, "Reversal modes in magnetic nanotubes", Applied Physics Letters 90, 102501 (2007).

J. Escrig, P. Landeros, D. Altbir, and E. E. Vogel, "Effect of anisotropy in magnetic nanotubes", Journal of Magnetism and Magnetic Materials 310, 2448 (2007).

J. Escrig, D. Altbir, and K. Nielsch, "Magnetic properties of bi-phase micro- and nanotubes", Nanotechnology 18, 225704 (2007).

J. Escrig, P. Landeros, D. Altbir, E. E. Vogel, and P. Vargas, "Phase diagrams of magnetic nanotubes", Journal of Magnetism and Magnetic Materials 308, 233 (2007).

---

**2006** P. Landeros, J. Escrig, D. Altbir, M. Bahiana, and J. d'Albuquerque e Castro, "Stability of magnetic configurations in nanorings", Journal of Applied Physics 100, 044311(2006).

M. Bahiana, F. S. Amaral, S. Allende, and D. Altbir, “Reversal modes in arrays of interacting magnetic Ni nanowires: Monte Carlo simulations and scaling technique”, *Physical Review B* 74, 174412 (2006).

J. Mejía-López, D. Altbir, A. H. Romero, X. Battlle, Igor V. Roshchin, Chang-Peng Li, and Ivan K. Schuller, “Vortex state and effect of anisotropy in sub-100-nm magnetic nanodots”, *Journal of Applied Physics* 100, 104319 (2006).

P. Vargas, D. Altbir, and J. d'Albuquerque e Castro, “Fast Monte Carlo for magnetic nanoparticles”, *Physical Review B* 73, 092417 (2006).

J. Escrig, P. Landeros, D. Altbir, M. Bahiana, and J. d'Albuquerque e Castro, “Magnetic properties of layered nanorings”, *Applied Physics Letters* 89, 132501 (2006).

D. Laroze, P. Vargas, D. Altbir, and M. Vázquez, “Box model for hysteresis loops of arrays of Ni nanowires”, *Brazilian Journal of Physics* 36, 908 (2006).

---

**2005** P. Landeros, J. Escrig, D. Altbir, D. Laroze, J. d'Albuquerque e Castro, and P. Vargas, “Scaling relations for magnetic nanoparticles”, *Physical Review B* 71, 094435 (2005).

P. R. Arias, D. Altbir, and M. Bahiana, “Geometric aspects of the dipolar relations for magnetic nanoparticles”, *Journal of Physics-Condensed Matter* 17, 1625 (2005).

J. Mejia-Lopez, P. Soto, and D. Altbir, “Asymmetric reversal of the hysteresis loop in Exchange-bias nanodots”, *Physical Review B* 71, 104422 (2005)

---

**2004** M. Bahiana, J.P.P. Nunes, D. Altbir, P. Vargas, and M. Knobel. “Ordering effects of the dipolar interaction in lattices of small magnetic particles”, *Journal of Magnetism and Magnetic Materials* 281, 372 (2004).

---

**2003** P. Vargas, Z. Barticevic, M. Pacheco, and D. Altbir, “Perturbation potential produced by monolayers of InAs on GaAs (100)”, *Physical Review B* 68, 155306 (2003).

J. Mejía-López, D. Altbir, and I.K. Schuller, “Relaxation times in exchange-biased nanostructures”, *Applied Physics Letters* 83, 3332 (2003).

J. d'Albuquerque e Castro, D. Altbir, J. C. Retamal, and P. Vargas, “Comment on Scaling approach to the magnetic phase diagram of nanosized systems” (Reply), *Physical Review Letters* 91, 139702 (2003)

J. Escrig, P. Landeros, J.C. Retamal, D. Altbir, and J. d'Albuquerque e Castro, “Magnetic behavior of nanoparticles in patterned thin films”, *Applied Physics Letters* 82, 3478 (2003).

---

**2002** M. Bahiana, C. Bastos, W. Nunes, M. Novak, D. Altbir, P. Vargas, and M. Knobel, “Role of the alloy structure in the magnetic behavior of granular alloy”, *Physical Review B* 66, 214407 (2002).

P. Vargas, M. Knobel, and D. Altbir, “Magnetic relaxation in nanocrystalline systems: Linking Montecarlo steps with time”, *Zeitschrift fuer Physik* 93, 10 (2002).

J. d'Albuquerque e Castro, D. Altbir, J. C. Retamal, and P. Vargas, “Scaling approach to the magnetic phase diagram of nanosized systems”, *Physical Review Letters* 88, 2372202 (2002).

P. Vargas, D. Altbir, M. Knobel, and D. Laroze, “Thermodynamics of two-dimensional magnetic nanoparticles”, *Europhysics Letters* 58, 603 (2002).

P. Vargas, E. Muñoz, M. Flores, and D. Altbir, “Effect of size distribution on magnetization in a two-dimensional system of magnetic granules with uniaxial anisotropy”, *Revista Mexicana de Física* 48, 26 (2002).

M. Knobel, L. C. Sampaio, E. H. C. P. Sinnecker, P. Vargas, and D. Altbir, “Dipolar magnetic interactions among magnetic microwires”, *Journal of Magnetism and Magnetic Materials* 249, 60 (2002).

- 2001** D. Altbir, P. Vargas, and J. d'Albuquerque e Castro, "Magnetic behavior of small magnetic particles", Physical Review B 64, 12410 (2001).
- P. Vargas, D. Altbir, and J. d'Albuquerque e Castro, "Magnetism of nanosized metallic Co-clusters", Journal of Magnetism and Magnetic Materials 226, 603 (2001).
- E. E. Vogel, J. Cartes, D. Altbir, and P. Vargas, "Hysteresis cycles for  $\pm J$  spin glasses", Journal of Magnetism and Magnetic Materials 226, 1248 (2001).
- 
- 2000** P. Vargas and D. Altbir, "Dipolar effects in multilayers with interface roughness", Physical Review B 62, 6337 (2000).
- P. Vargas, D. Altbir, E. Vogel, and J. Cartes, "Simulation of histeresis for  $\pm J$  triangular lattices", Physical B 284, 1211 (2000).
- 
- 1999** E.E. Vogel, J. Cartes, P. Vargas, D. Altbir, S. Kobe, T. Klotz, and M. Nogala, "Hysteresis in  $\pm J$  spin glass model", Physical Review B 59, 3325 (1999).
- D. Altbir, P. Vargas, and J. d'Albuquerque e Castro, "Magnetism of nanosized metallic particles", Physical Review B 60, 6541 (1999).
- 
- 1998** D. Altbir, U. Raff, P. Vargas, and J. d'Albuquerque e Castro, "Dipolar interaction and magnetic ordering between metallic clusters", Physical Review B 57 (1998).
- D. Altbir and P. Vargas, "Magnetoresistance in granular materials and size effects", Revista Mexicana de Física 44, 73 (1998).
- E. E. Vogel, J. Cartes, P. Vargas, and D. Altbir, "Magnetization jumps in the  $\pm J$  spin glass model", Revista Mexicana de Física 44, 78 (1998).
- 
- 1997** P. Vargas and D. Altbir, "RKKY interactions between metallic clusters", Journal of Magnetism and Magnetic Materials 167, 161 (1997).
- P. Vargas, D. Altbir, U. Raff, and J. d'Albuquerque e Castro, "Magnetoresistance in granular metallic systems", Journal of Physics: Condensed Matter 9, 9931 (1997).
- 
- 1996** D. Altbir, P. Vargas, and J. d'Albuquerque e Castro, "Magnetic coupling in metallic granular systems", Physical Review B 54 (Rapid Communication), R6823 (1996).
- 
- 1995** D. Altbir, M. Kiwi, R. Ramírez, and I. K. Schuller, "Dipolar interaction and its interplay with interface roughness", Journal of Magnetism and Magnetic Materials 149 (Letter to the Editor), L246 (1995).
- 
- 1994** D. Altbir and M. Kiwi, "Magnetic multilayers: A detailed analysis of continuum versus discrete treatments", Journal of Applied Physics 75, 3193 (1994).
- 
- 1992** D. Altbir and M. Kiwi, "Roughening and discreteness effects on the structure of magnetic layers", Solid State Communication 82, 413 (1992).
- 
- 1989** D. Altbir, M. Kiwi, G. Martínez, and M. J. Zuckermann, "Magnetic metal films on paramagnetic substrates: A theoretical study", Physical Review B 40, 6963b (1989).