

PUBLICACIONES / 2010

1. Alfaro, J and Andrianov, A A and Cambiaso, M and Giacconi, P and Soldati, R. Bare And Induced Lorentz And Cpt Invariance Violations In Qed. *Int. J. Mod. Phys. A* 25, 3271-3306 (2010).
2. Alfaro, Jorge and Urrutia, Luis F. Gauge invariant nonlinear electrodynamics motivated by spontaneous breaking of the Lorentz symmetry. *Phys. Rev. D* 81, 025007 (2010).
3. Beau, M and Benguria, R and Brummelhuis, R and Duclos, P. H(2) molecule in strong magnetic fields. *J. Phys. A* 43, 474005 (2010).
4. Benguria, Rafael D and Duclos, Pierre and Fernandez, Claudio and Sing-Long, Carlos. A nonlinear ordinary differential equation associated with the quantum sojourn time. *J. Phys. A* 43, 474007 (2010).
5. Bhuyan, H and Favre, M and Henriquez, A and Vogel, G and Valderrama, E and Wyndham, E and Chuaqui, H. Production of sub-micron size carbon composites by high energy carbon ion beams irradiation of solid targets. *Surf. Coat. Technol.* 204, 2950-2953 (2010).
6. Burschil, T and Koch, B. Renormalization Group Improved Black Hole Space-Time in Large Extra Dimensions. *Jetp Lett.* 92, 193-199 (2010).
7. Cabrera, A L and Avila, J I and Lederman, David. Hydrogen absorption absorption by metallic thin films detected by optical transmittance measurements. *Int. J. Hydrg. Energy* 35, 10613-10619 (2010).
8. Clifton, Timothy and Banados, Maximo and Skordis, Constantinos. The parameterized post-Newtonian limit of bimetric theories of gravity. *Class. Quantum Gravity* 27, 235020 (2010).
9. Cvetic, Gorazd and Loewe, Marcelo and Martinez, Cristian and Valenzuela, Cristian. Modified contour-improved perturbation theory. *Phys. Rev. D* 82, 093007 (2010).
10. Cvetic, Gorazd and Loewe, Marcelo and Martinez, Cristian V and Valenzuela, Cristian. A Modification of Contour-Improved Perturbation Theory. *Nucl. Phys. B Proc. Suppl.* 207-08, 152-155 (2010).
11. Dominguez, C A and Loewe, M and Rojas, J C and Zhang, Y. Charmonium in the vector channel at finite temperature from QCD sum rules. *Phys. Rev. D* 81, 014007 (2010).
12. Dominguez, C A and Loewe, M and Rojas, J C and Zhang, Y. QCD sum rules and thermal properties of Charmonium in the vector channel. *Nucl. Phys. B Proc. Suppl.* 207-08, 273-276 (2010).
13. Fraga, E S and Villavicencio, C. Weinberg power counting and the quark determinant at small chemical potential. *Phys. Rev. D* 81, 065022 (2010).
14. Garcia, Griselda and Kiwi, Miguel and Mejia-Lopez, Jose and Ramirez, Ricardo. Exchange bias of patterned systems: Model and numerical simulation. *J. Magn. Magn. Mater.* 322, 3329-3332 (2010).

15. Gonzalez, Ivan and Loewe, M. Feynman diagrams and a combination of the integration by parts and the integration by fractional expansion techniques. *Phys. Rev. D* 81, 026003 (2010).
16. Hernandez, Maritza and Orszag, Miguel and Bergou, Janos A. A comparative study of the optical and circuit representation of the unambiguous quantum state discriminator. *J. Mod. Opt.* 57, 181-187 (2010).
17. Lastra, F and Romero, G and Lopez, C E and Zagury, N and Retamal, J C. Entangled coherent states under dissipation. *Opt. Commun.* 283, 3825-3829 (2010).
18. Lastra, F and Wallentowitz, S. Dynamics of entanglement between two free atoms with quantized motion. *J. Phys. B* 43, 125501 (2010).
19. Maurer, P C and Maze, J R and Stanwix, P L and Jiang, L and Gorshkov, A V and Zibrov, A A and Harke, B and Hedges, J S and Zibrov, A S and Yacoby, A and Twitchen, D and Hell, S W and Walsworth, R L and Lukin, M D. Far-field optical imaging and manipulation of individual spins with nanoscale resolution. *Nat. Phys.* 6, 912-918 (2010).
20. Mejia-Lopez, J and Altbir, D and Landeros, P and Escrig, J and Romero, A H and Roshchin, Igor V and Li, C-P and Fitzsimmons, M R and Batlle, X and Schuller, Ivan K. Development of vortex state in circular magnetic nanodots: Theory and experiment. *Phys. Rev. B* 81, 184417 (2010).
21. Morales-Molina, L and Arevalo, E. Accurate control of a Bose-Einstein condensate by managing the atomic interaction. *Phys. Rev. A* 82, 013642 (2010).
22. Munoz, Francisco and Mejia-Lopez, Jose and Perez-Acle, Tomas and Romero, Aldo H. Uniaxial Magnetic Anisotropy Energy of Fe Wires Embedded in Carbon Nanotubes. *Ac Nano* 4, 2883-2891 (2010).
23. Rodriguez-Suarez, R L and Matos-Abiague, A and Azevedo, A and Rezende, S M. Frequency shift of spin waves in tunnel-junction spin-transfer nano-oscillators. *Phys. Rev. B* 82, 132410 (2010).
24. Rodriguez-Suarez, R L and Rezende, S M and Azevedo, A and Aguiar, F M. Spin-wave Theory for the Magnetic Damping in Microwave Nano-Oscillators. *J. Supercond. Nov. Magn* 23, 33-35 (2010).
25. Romero, C P and Avila, J I and Trabol, R A and Wang, Huan and Vantomme, A and Van Bael, M J and Lievens, P and Cabrera, A L. Pd as a promoter to reduce Co cluster films at room temperature. *Int. J. Hydrg. Energy* 35, 2262-2267 (2010).
26. Seifert, B and Hause, A and Mitschke, F. A fiber Mach-Zehnder interferometer for the unique phase retrieval of ultrafast pulses with a 1 THz gap. *Appl. Phys. B* 99, 423-426 (2010).
27. Souza, D and Claro, F. Paired states of interacting electrons in a two-dimensional lattice. *Phys. Rev. B* 82, 205437 (2010).
28. Stanwix, P L and Pham, L M and Maze, J R and Le Sage, D and Yeung, T K and Cappellaro, P and Hemmer, P R and Yacoby, A and Lukin, M D and Walsworth, R L.

- Coherence of nitrogen-vacancy electronic spin ensembles in diamond. *Phys. Rev. B* 82, 201201 (2010).
29. Valderrama, E and Favre, M and Bhuyan, H and Ruiz, H M and Wyndham, E and Valenzuela, J and Chuaqui, H. Sub-micron size carbon structures synthesized using plasma enhanced CVD, without external heating and no catalyzer action. *Surf. Coat. Technol.* 204, 2940-2943 (2010).
30. Wang, S -K and Mamontov, E and Bai, M and Hansen, F Y and Taub, H and Copley, J R D and Sakai, V Garcia and Gasparovic, G and Jenkins, T and Tyagi, M and Herwig, K W and Neumann, D A and Montfrooij, W and Volkmann, U G. Localized diffusive motion on two different time scales in solid alkane nanoparticles. *Epl* 91, 66007 (2010).
31. Wyndham, E S and Favre, M and Valdivia, M P and Valenzuela, J C and Chuaqui, H and Bhuyan, H. Fast plasma discharge capillary design as a high power throughput soft x-ray emission source. *Rev. Sci. Instrum.* 81, 093502 (2010).
32. Atlas Collab (Díaz M A). Charged-particle multiplicities in pp interactions at root s=900 GeV measured with the ATLAS detector at the LHC ATLAS Collaboration. *Phys. Lett. B* 688, 21-42 (2010).
33. Atlas Collab (Díaz M A). Performance of the ATLAS detector using first collision data. *J. High Energy Phys.*, 056 (2010).
34. Atlas Collab (Díaz M A). Search for New Particles in Two-Jet Final States in 7 TeV Proton-Proton Collisions with the ATLAS Detector at the LHC. *Phys. Rev. Lett.* 105, 161801 (2010).
35. Atlas Collab (Díaz M A). Readiness of the ATLAS Tile Calorimeter for LHC collisions. *Eur. Phys. J. C* 70, 1193-1236 (2010).
36. Atlas Collab (Díaz M A). Readiness of the ATLAS liquid argon calorimeter for LHC collisions. *Eur. Phys. J. C* 70, 723-753 (2010).
37. Atlas Collab (Díaz M A). Drift Time Measurement in the ATLAS Liquid Argon Electromagnetic Calorimeter using Cosmic Muons. *Eur. Phys. J. C* 70, 755-785 (2010).
38. Atlas Collab (Díaz M A). The ATLAS Inner Detector commissioning and calibration. *Eur. Phys. J. C* 70, 787-821 (2010).
39. Atlas Collab (Díaz M A). The ATLAS Simulation Infrastructure. *Eur. Phys. J. C* 70, 823-874 (2010).
40. Atlas Collab (Díaz M A). Commissioning of the ATLAS Muon Spectrometer with cosmic rays. *Eur. Phys. J. C* 70, 875-916 (2010).
41. Atlas Collab (Díaz M A). Observation of a Centrality-Dependent Dijet Asymmetry in Lead-Lead Collisions at root s(NN)=2.76 TeV with the ATLAS Detector at the LHC. *Phys. Rev. Lett.* 105, 252303 (2010).