

2014 International Publication Awards

1. R.C.F. Caballar, S. Diehl, H. Makela, M. Oberthaler and G. Watanabe, "Dissipative Preparation of Phase- and Number-Squeezed States with Ultracold Atoms", *Phys Rev. A* (89) 013620, (2014).
2. J. Bunao and E.A. Galapon, "The Bender-Dunne Operators as Hilbert Space Operators", *Jour. of Math. Physics*, Vol. 55, 022102, (2014).
3. E.A. Galapon and K. M. L. Martinez, "Exactification of the Poincare Asymptotic Expansion of the Hankel Integral: Spectacularly Accurate Asymptotic Expansions and Non-Asymptotic Scales", *Proc. R. Soc A* 470, (2014).
4. R.C.S. Bernardo and C.P. Palisoc, "Wronskian Method for Bound State Central Force Problem", *Eur. Jour. of Phys*, 35 (3), 035024, (2014).
5. J. C. De Vero, I. Hwang, H. Shin, A. C. Santiago, D. Lee, J. Chang, J. Kim, R. V. Sarmago, and J. H. Song, "Growth and Superconducting Properties of Bi₂Sr₂CaCu₂O₈ Thin Films Incorporated with Iridate Nanoparticles", *Phys Status Solidi A*, 1-7, (2014).
6. J.C. De Vero, I. Hwang, A.C.L. Santiago, J. Chang, J. Kim R.V. Sarmago and J.H. Song, "Growth of Bi₂Sr₂CaCu₂O₈ Thin Films with Enhanced Superconducting Properties by Incorporating Ca₂CoO₄ Nanoparticles", *App Phys Lett*. 104, 172603.
7. E. Prieto, S. Vizcara, A. Somintac, A. Salvador, E. Estacio, C. Que, K. Yamamoto, T. Masahiko, "Terahertz Emission in Low-Temperature-Grown GaAs with an n-GaAs Buffer in Reflection and Transmission Excitation Geometries" *J. Opt. Soc. Am. B.: Optical Physics*.
8. X.M. Puspus, K.H. Villegas and F.N.C. Paraan, "Entanglement Spectrum and Number Fluctuations in the Spin-Partitioned BCS Ground State", *Phys. Rev. B* **90**, 155123 (2014).
9. C. Baldo and C. Villagonzalo, "Spin-Orbit Coupled Transport in a Curved Quantum Wire", (2014) *Physica E, Low-Dimensional Systems and Nanostructures*, 63, pp. 93-98.
10. R.C. Batac and H. Kantz, "Observing Spatio-Temporal Clustering and Separation Using Interevent Distributions of Regional Earthquakes", *Nonlinear Processes in Geophysics*, 21, 735-744, (2014).
11. A.A. Paguirigan Jr., C.P. Monterola, R.C. Batac, "Loss of Criticality in the Avalanche Statistics of Sandpiles with Dissipative Sites", (2014) *Communications in Nonlinear Science and Numerical Simulation*.
12. L. Jirkovsky and L.M. Bo-ot, "Taylor-Couette Flow and a Molecule Dependent Transport Equation", *Physica A*, 415, 205-209, (2014).
13. J.J. Monserate, F. C. Sumera, J. A. Daseco, K. G. Pabelina, and H. J. Ramos, "Surface Characterization of Argon Plasma Treated Electrospun P(HOLA-e-CL) Clay Nanocomposite", *International Journal of Agricultural Technology* 10 (1) 29-37 (2014).

14. E. Escoto, J. Muldera, L. Dasallas, E. Estacio, and P.F. Almoró, "Mapping of Temporal Coherence Function for Ultrafast Lasers via Statistical Fringe Analysis of Reconstructed Phase Maps," *Optics Communications* 329, 190-195 (2014).
15. J.P.L. Carpio and P.F. Almoró, "Wavefront Watermarking of Technical and Biological Samples Using Digital Random Phase Modulation and Phase Retrieval," *Journal of Modern Optics* (2014).
16. P.L.A.C. Hilario, G.A. Tapang and M.J. Villangca, "Independent Light Fields Generated Using a Phase-Only Spatial Light Modulator", *Opt. Lett.* 39 (7), 2036-2039, (2014).
17. M. I. D. Fudolig and J. P. Esguerra, "Analytic Treatment of Consensus Achievement in the Single-Type Zealotry Voter Model", *Physica A: Volume 413*, (2014), Pages 626-634.
18. K.H. Villegas, D.M. Yanga, J.P. Esguerra, "Tunneling of Holes in Spin Polaron Theory", *J Supercond Nov Magn* (2014) 27:493-496
19. J.D. Tare and J.P. Esguerra, "Transmission Through Locally Periodic Potentials in Space-Fractional Quantum Mechanics", (2014) *Physica A: Statistical Mechanics and Its Applications*, 407, pp. 43-53.
20. J. Tare, J.P. Esguerra, "Bound States for Multiple Dirac-Delta Wells in Space-Fractional Quantum Mechanics", *J. Mathematical Physics* 55, 012106 (2014).
21. J.D. Tare and J.P.H. Esguerra, "Erratum to "Bound States for multiple Dirac- δ Wells in Space-Fractional Quantum Mechanics" [*J. Math. Phys.* 55, 012106 (2014)], *Journal of Mathematical Physics* 55 (4), 049901.
22. M.M.S. Villamayor, S. Kato, M.N. Soriano, M. Wada, and H.J. Ramos, "Color-Based Tracking of Plasma Dust Particles", *Phys. Plasmas* 21 (2014) 023703.
23. J. A. S. Ting, L. M. D. Rosario, H. V. Lee, Jr., H. J. Ramos, R. B. Tumlos, R. V. Fischer, "Studies on the Use of Coaxial Plasma Bulb for Enhanced Wettability of Aluminum and Polymethylmethacrylate Surfaces", *Vacuum* 103 (2014) 9-13.
24. J.A.S. Ting, L.M.D. Rosario, H.V. Lee Jr., H.J. Ramos, R.B. Tumlos, "Hydrophobic Coating on Glass Surfaces via Application of Silicone Oil and Activated Using a Microwave Atmospheric Plasma Jet", *Surface and Coatings Technology*.
25. K.G. Pabelina, J.P. Hotezuela, R.M.P. Fallesgon, H.J. Ramos, "Wettability of Plasma-Treated Fibers of Anahaw (*Livistona rotundifolia*), Buri (*Corypha elata*), and Pandan (*Pandanus amaryllifolius*)", *Advanced Materials Research* 894 (2014) 154-157
26. J.J. Monserate, F.C. Sumera, J.A. Daseco, K.G. Pabeliña, and H.J. Ramos, "Surface Characterization of Argon Plasma Treated Electrospun P(HOLA-e-CL) Clay Nanocomposite" *International Journal of Agricultural Technology* 10 (1) (2014) 29-37.

27. M.M.S. Villamayor, Y. Hiramatsu, M. Wada, H.J. Ramos, "Transparent ZnO Thin Film Deposition by a Compact Planar Magnetron Device", *Jpn. J. Appl. Phys.* 53 (2014) 05FU02.
28. H.J. Ramos, K. Doi, M.S. Fernandez, G.M. Malapit, M. Sasao, M.M.S. Villamayor and M. Wada, "Sheet Plasma Configurations Suitable for Materials Processing", *JPS Conf. Proc.* 1 (2014), 015060.
29. M.A.J. Viernes, C.L.S. Mahinay, M.M.S. Villamayor, H.J. Ramos, "Photo-Response of Silver-TiO₂ Film", *Review of Scientific Instruments* 85 (2014) 02C318
30. G.M. Malapit, J.I.L. Bugante, C.L.S. Mahinay, M. Wada, and H.J. Ramos, "Effects of Negative Ag Ions on the Surface of (200) Single-Crystalline MgO Substrates", *JPS Conf. Proc.* , 015062 (2014).
31. H.S. Salapare, III, B.A.T. Suarez, H.S.O. Cosinero, M.Y. Bacaoco, H.J. Ramos, "Irradiation of poly(tetrafluoroethylene) Surfaces by CF₄ Plasma to Achieve Robust Superhydrophobic and Enhanced Oleophobic Properties of Biological Applications", *Materials Science and Engineering: C*, (2014).
32. D.I. Jang, T.H. Ihm, Q.H. Trinh, J.O. Jo, Y.S. Mok, S.B. Lee, H.J. Ramos, "Surface Coating of Phosphor Powder Using Atmospheric Pressure Dielectric Barrier Discharge Plasma", *Appl. Chem. Eng.*, 25 5 (2014) 455-462
33. M.M.S. Villamayor, M. Wada, H.J. Ramos, "Substrate Temperature Dependence of Photoresponse and Crystal Phases of TiO₂ Deposited via Dual Plane Magnetron", *PS Conf. Proc.* 1 (2014), 015066
34. L. Valladares, A. Ionescu, S. Holmes, C.H.W. Barnes, A.B. Domínguez, O.A. Quispe, J.C. González, S. Milana, M. Barbone, A.C. Ferrari, H. Ramos and Y. Majima, "Characterization of Ni Thin Films Following Thermal Oxidation in Air", *J. Vac. Sci. Technol. B* **32**, 051808 (2014)
35. J.A.S. Ting, L.M.D. Rosario, H.V. Lee, Jr., H.J. Ramos, R.B. Tumlos, "Hydrophobic Coating on Glass Surfaces of Silicone Oil and Activated Using a Microwave Atmospheric Plasma Jet", *Surface and Coatings Technology*, (2014).
36. C. Rosales-Guzmán, N. Hermosa, A. Belmonte, and J. Torres, "Direction-Sensitive Transverse Velocity Measurement by Phase-Modulated Structured Light Beams," *Opt. Lett.* 39, 5415-5418 (2014).
37. R.B. Jaculbia, M.H.M. Balgos, N.S. Mangila, M.A.C. Tumanguil, E.S. Estacio, A.A. Salvador, A.S., Somintac, "Enhanced Terahertz Emission from GaAs Substrates Deposited with Aluminum Nitride Films Caused by High Interface Electric Fields", (2014) *App. Surface Science* 303, pp. 241-244.
38. E. Escoto, J. Muldera, L. Dasallas, E. Estacio, P. Almoró, "Coherence Length Measurement for Ultra-Short Laser Pulses Using Digital Holography and Statistical Fringe Analysis",

Fringe 2013 - 7th International Workshop on Advanced Optical Imaging and Metrology, pages 247-250.

39. M.H. Balgos, R. Jaculbia, M. Defensor, J.P. Afalla, J.J. Ibanes, M. Bailon-Somintac, E. Estacio, A. Salvador, A. Somintac, "Shell to Core Carrier-Transfer in MBE-Grown GaAs/AlGaAs Core-Shell Nanowires on Si(100) Substrates", *Jour. of Luminescence*, 155, pp. 27-31.
40. J.C.S. Pang, C.P. Monterola, J.Y. Bantang, "Noise-Induced Synchronization in a Lattice Hodgkin-Huxley Neural Network", (2014) *Physica A: Statistical Mechanics and Its Applications*, 393, pp.638-645.
41. N.G.E. Saplagio, A.I. Mabilangan, M.A.B. Faustino, A.S. Somintac, A. A. Salvador, "Tunable photonic Crystals Based on Electrochemically Etched Porous Silicon", (2014) *International Journal of Electrochemical Science*, 9 (11), pp. 6191-6200.
42. M.A. Calleja, A. Amo, J.J. Miranda, F.W. Patricio, W. Garcia, "Femtosecond Pulsed Laser Deposition of Graphite on Silicon and Copper Foil", (2014) *Journal of Advanced Computational Intelligence and Intelligent Informatics*, 18 (5), pp. 764-768.
43. C. Rosales-Guzman, N. Hermosa, A. Belmonte, J.P. Torres, "Measuring the Translational and Rotational Velocities of Particles in Helical Motion Using Structured Light", (2014) *Optics Express*, 22 (13), pp. 16504-16509.
44. N. Hermosa, C. Rosales-Guzman, S.F. Pereira, J.P. Torres, "Nanostep Height Measurement via Spatial Mode Prjection" (2014) *Optics Express*, 39 (2), pp. 299-302.
45. C. Rosales-Guzman, N. Hermosa, A. Belmonte, J.P. Torres, "Direction-Sensitive Transverse Velocity Measurement by Phase-Modulated Structured Light Beams" (2014) , *Optics Letters*, 39 (18), pp. 5415-5418.
46. J.J.T. Cabatbat, J.P. Monsanto, G.A. Tapang, "Preserved Network Metrics Across Translated Texts" (2014) *International Journal of Modern Physics C*, 25 (2), 1350092.
47. P.C. Naval, Jr., M. Soriano, B.C. Esmero, and Z.M. Abad, "A Coral Mapping and Health Assessment System Based on Texture Analysis", *Lecture Notes in Computer Science* 8397, pp. 601-609.