

2015 International Publications

1. J.A.F. Balista and C. Saloma, "Modified Inelastic Bouncing Ball Model for Describing the Dynamics of Granular Materials in a Vibrated Container", *Physica D: Nonlinear Phenomena*, Vol. 291, 15 January 2015, pp. 17-20.
2. C. Saloma, G.J. Perez, C.A. Gavile, J.J. Ick-Joson, C. Palmes-Saloma, "Prior Individual Training and Self-Organized Queuing During Group Emergency Escape of Mice from Water Pool", *PLoS ONE*, 10(2), 18 Feb 2015, e0118508.
3. A.A. Paguirigan Jr., C.P. Monterola and R.C. Batac, "Loss of Criticality in the Avalanche Statistics of Sandpiles With Dissipative Sites", *Communication in Nonlinear Science and Numerical Simulation*, Vol. 20, Issue 3, March 2015, pp. 785-793.
4. A.B. Tarun, A.A. Paguirigan Jr., and R.C. Batac, "Spatiotemporal Recurrences of Sandpile Avalanches", *Physica A: Statistical Mechanics and Its Applications*, Vol. 436, 15 October 2015, pp. 293-300.
5. R.C. Batac, "Statistical Properties of the Immediate Aftershocks of the 15 October 2013 Magnitude 7.1 Earthquake in Bohol, Philippines, *Acta Geophysica*, doi: 10.1515/acgeo-2015-0054.
6. J.C.S. Pang and J.Y. Bantang, "Hodgkin-Huxley Neurons With Defective and Blocked Ion Channels", *International Journal of Modern Physics C*, 26 (10), 1550112.
7. N. Bareza, Jr. and N. Hermosa II, "Propagation Dynamics of Vortices in Helico-Conical Optical Beams", *Optics Communications*, Vol. 356, 17 August 2015, Art. 20387, pp. 236-242.
8. R.C.S. Bernardo and J.P.H. Esguerra, "Exactly Solvable Dynamical Models With a Minimal Length Uncertainty", *Few-Body Systems*, 56, (4), pp 219-229.
9. R.C. Bernardo, J.P. Esguerra, J.D. Vallejos and J.J. Canda, "Wind-Influenced Projectile Motion", *European Journal of Physics*, 36(2), 025016.
10. K.H. Villegas and J.P. Esguerra, "Lattice Gauge Theory and Gluon Color-Confinement in Curved Spacetime", *Modern Physics Letters A*, 30 (5), 1550020.
11. R. Delos Santos, J.J. Ibanes, M.H. Balgos, R. Jaculbia, J.P. Afalla, M. Bailon-Somintac, E. Estacio, A. Salvador, A. Somintac, C. Que, S. Tsuzuki, K. Yamamoto and M. Tani, "Dynamics of Optically-Generated Carriers in Si (100) and Si (111) Substrate-Grown GaAs/AlGaAs Core-Shell Nanowires", *Nanoscale Research Letters*, 10 (1), 337.

12. E.A. Mashkovich, A.I. Shugurov, S. Ozawa, E. Estacio, M. Tani, and M.I. Bakunov, "Noncollinear Electro-Optic Sampling of Terahertz Waves in a Thick GaAs Crystal", *IEEE Transactions on Terahertz Science and Technology*, 5 (5), 7219239, pp. 732-736.
13. J.M.M. Presto, E.A.P. Prieto, K.M. Omambac, J.P.C. Afalla, D.A.O. Lumantas, A.A. Salvador, A.S. Somintac, E.S. Estacio, K. Yamamoto and M. Tani, "Confined Photocarrier transport in InAs Pyramidal Quantum Dots via terahertz time-Domain Spectroscopy", *Optics Express*, 23 (11) 1 June 2015, pp 14532-14540.
14. C.P. Sadia, J. Muldera, E.S. Estacio, A.S. Somintac, A.A. Salvador, C.T. Que, K. Yamamoto and M. Tani, "Interruption-assisted Epitaxy of Faceted p-InAs on Buffered GaSb for Terahertz Emitters", *Applied Physics Express*, 8 (3), 1 March 2015 035501.
15. M. Tani, S. Ozawa, S. Azuma, S. Tsuzuki, T. Furuya, H. Kitahara, S. Funkner, G. Niehues, E. Estacio, K. Kurihara, K. Yamamoto and M. Bakunov, "Non-Collinear Electro-Optic Sampling Techniques for Efficient Detection of THz Radiation", *Optical Sensors, Sensors 2015, Sem2D.2*, p. 316p.
16. M.H. Balgos, J.P. Afalla, S. Vizcara, D. Lumantas, E. Estacio, A. Salvador, and A. Somintac, "Temperature Behavior of Unstrained (GaAs/AlGaAs) and Strained (InGaAs/GaAs) Quantum Well Bandgaps", *Optical and Quantum Well Bandgaps*, *Optical and Quantum Electronics*, 47 (8), 2015, pp. 3053-3063.
17. M.J.F. Empizo, K. Yamanoi, A.B. Santos-Putungan, R. Arita, Y. Minami, M.V. Luong, T. Shimizu, E.S. Estacio, A.S. Somintac, A.A. Salvador, R.V. Sarmago, and N. Sarukura, "Blue-Shifted and Picosecond Amplified UV Emission From Aqueous Chemical grown ZnO Microrods", *Optical Materials*, 48, 1 October 2015, pp. 179-184.
18. M.J.F. Empizo, K. Yamanoi, K. Fukuda, R. Arita, Y. Minami, T. Shimizu, N. Sarukura, T. Fukud, A.B. Santos-Putungan, R.M. Vargas, A.A. Salvador, and R.V. Sarmago, "Photoluminescence Investigations of Bulk and Microstructured ZnO Crystals for Scintillator Applications", *Journal of Ceramic Processing Research*, 16 (1), 1 Feb 2015 pp. 98-101.
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20. A.B. Santos-Putungan, L.M. Bambao, and R.V. Sarmago, "Electrical Properties of an Individual ZnO Micro-Nanorod", IOP conference Series: Materials Science and Engineering, 79 (1) 10 June 2015, 012030.
21. M.M. Flores and E.A. Galapon, "Two Qubit Entanglement Preservation Through the Addition of Qubits", Annals of Physics, 354, March 1, 2015, pp. 21-30.
22. H.B. Domingo and E.A. Galapon, "Generalized Weyl Transform for Operator Ordering: Polynomial Functions in Phase Space", Journal of Mathematical Physics, 56 (2) Feb. 11, 2015, 1.4907561.
23. J. Bunao and E.A. Galapon, "A One-Particle Time of Arrival Operator for a Free Relativistic Spin-0 Charged Particle in (1+1) Dimensions", Annals of Physics, 353, Feb 1, 2015, pp. 83-106.
24. C.L.S. Mahinay, M. Wada and H.J. Ramos, "Feasibility of a 90° Electric Sector Energy Analyzer for Low Energy Ion Beam Characterization", Review of Scientific Instruments, 86 (2), 1 Feb 2015, 023306.
25. H.S. Salapare III, B.A.T. Suarez, H.S.O. Cosinero, M.Y. Bacaoco and H.J. Ramos, "Irradiation of poly(tetrafluoroethylene) Surfaces by CF₄ Plasma to Achieve Robust Superhydrophobic and Enhanced Oleophilic Properties for Biological Applications, Materials Science and Engineering C, 46 1 Jan 2015, pp. 270-275.
26. L.J. Dagum, F.J. corpus, M. Soriano, J. Jauod, E. Capili, and R.J. Judilla, "Stitching Algorithm Applied to Camera Array Images for the Visualization of Tubbataha Reef Grounding Scars, "2014 Oceans – St. John's OCEANS 2014, 6 Jan. 2015, 7003154.
27. F.A. Bayocboc Jr. and F.N.C. Paraan, "Exact Work Statistics of Quantum Quenches in the Anisotropic XY Model:", Physical Review E – Statistical, Nonlinear, and Soft Matter Physics, 92 (3), 29 Sept 2015, 032142.
28. K.K.R. Seroje, R.S. Dela Rosa, and F.N.C. Paraan, "Effective Thermodynamics of Isolated Entangled Squeezed and Coherent States", European Journal of Physics, 36 (5), 1 Sept 2015, 055051.