

1. Abdalgabar, A. & Cornell, A.S. 2015, "Large trilinear $A(t)$ soft supersymmetry breaking coupling from 5D MSSM", *High Energy Particle Physics Workshop (Heppw2015)*, vol. 645, pp. UNSP 012001.
2. Abdalgabar, A. & Cornell, A.S. 2015, "Two-loop renormalisation in UED models", *International Workshop on Discovery Physics at the Lhc (Kruger2014)*, vol. 623, pp. 012001.
3. Abdulsalam, M. & Joubert, D.P. 2015, "Structural and electronic properties of MX_3 ($M = \text{Ti, Zr}$ and Hf ; $X = \text{S, Se, Te}$) from first principles calculations", *European Physical Journal B*, vol. 88, no. 7, pp. 177.
4. Akhalwaya, I., Moodley, M. & Petruccione, F. 2015, "Monte Carlo simulation of a noisy quantum channel with memory", *Physical Review E*, vol. 92, no. 4, pp. 043304.
5. al Farooqui, M.A., Breeland, J., Aslam, M.I., Sadatgol, M., Oezdemir, S.K., Tame, M., Yang, L. & Gueney, D.O. 2015, "Quantum entanglement distillation with metamaterials", *Optics Express*, vol. 23, no. 14, pp. 17941-17954.
6. Alberte, L., Brustein, R., Khmelnitsky, A. & Medved, A.J.M. 2015, "Density matrix of black hole radiation", *Journal of High Energy Physics*, , no. 8, pp. 015.
7. Ali, T., Haque, S.S. & Jejjala, V. 2015, "Natural inflation from near alignment in heterotic string theory", *Physical Review D*, vol. 91, no. 8, pp. 083516.
8. Amar, G., Banerjee, S., von Buddenbrock, S., Cornell, A.S., Mandal, T., Mellado, B. & Mukhopadhyaya, B. 2015, "Exploration of the tensor structure of the Higgs boson coupling to weak bosons in e^+e^- collisions", *Journal of High Energy Physics*, , no. 2, pp. 1-31.
9. Asano, M., Bechu, M., Tame, M., Oezdemir, S.K., Ikuta, R., Gueney, D.O., Yamamoto, T., Yang, L., Wegener, M. & Imoto, N. 2015, "Distillation of photon entanglement using a plasmonic metamaterial", *Scientific Reports*, vol. 5, pp. 18313.
10. Avdeenkov, A.V., Bodrenko, I.V., Bessarabov, D.G., Bibikov, A.V., Nikolaev, A.V., Taran, M.D., Tokarev, A. & Tkalya, E.V. 2015, "Thermodynamical model for hydrogen storage capacity in carbon nanostructures", *International Journal of Hydrogen Energy*, vol. 40, no. 11, pp. 4184-4193.
11. Avdeenkov, A.V. 2015, "Dynamics of ultracold polar molecules in a microwave field", *New Journal of Physics*, vol. 17, pp. 045025.
12. Azari, A. & Mueller-Nedebock, K.K. 2015, "Entropic competition in polymeric systems under geometrical confinement", *Epl*, vol. 110, no. 6, pp. 68004.

13. Bassa, H., Goyal, S.K., Choudhary, S.K., Uys, H., Diosi, L. & Konrad, T. 2015, "Process tomography via sequential measurements on a single quantum system", *Physical Review A*, vol. 92, no. 3, pp. 032102.
14. Bechu, M., Asano, M., Tame, M., Ozdemir, S.K., Ikuta, R., Yamamoto, T., Guney, D.O., Yang, L., Wegener, M. & Imoto, N. 2015, "Quantum Entanglement Distillation Using an Optical Metamaterial", *2015 Conference on Lasers and Electro-Optics (CLEO)*, .
15. Bhatta, R.S., Pellicane, G. & Tsige, M. 2015, "Tuning range-separated DFT functionals for accurate orbital energy modeling of conjugated molecules", *Computational and Theoretical Chemistry*, vol. 1070, pp. 14-20.
16. Brink, J., Geyer, M. & Hinderer, T. 2015, "Astrophysics of resonant orbits in the Kerr metric", *Physical Review D*, vol. 91, no. 8, pp. 083001.
17. Brink, J., Geyer, M. & Hinderer, T. 2015, "Orbital Resonances Around Black Holes", *Physical Review Letters*, vol. 114, no. 8, pp. 081102.
18. Brustein, R. & Medved, A.J.M. 2015, "Constraints on the quantum state of pairs produced by semiclassical black holes", *Journal of High Energy Physics*, , no. 7, pp. 012.
19. Brustein, R. & Medved, A.J.M. 2015, "Falling through the black hole horizon", *Journal of High Energy Physics*, , no. 6, pp. 089.
20. Brustein, R. & Medved, A.J.M. 2015, "How black holes burn: Entanglement entropy evolution for an evaporating black hole", *Physical Review D*, vol. 91, no. 8, pp. 084062.
21. Brustein, R. & Medved, A.J.M. 2015, "Quantum state of the black hole interior", *Journal of High Energy Physics*, , no. 8, pp. 082.
22. Chen, C.-., Cho, H.T., Cornell, A.S., Harmsen, G. & Naylor, W. 2015, "Gravitino Fields in Schwarzschild Black Hole Spacetimes", *Chinese Journal of Physics*, vol. 53, no. 6, pp. 110101.
23. Chetrite, R. & Touchette, H. 2015, "Nonequilibrium Markov Processes Conditioned on Large Deviations", *Annales Henri Poincaré*, vol. 16, no. 9, pp. 2005-2057.
24. Chetrite, R. & Touchette, H. 2015, "Variational and optimal control representations of conditioned and driven processes", *Journal of Statistical Mechanics-Theory and Experiment*, , pp. P12001.
25. Cornell, A.S. 2015, "Some theories beyond the Standard Model", *High Energy Particle Physics Workshop (Heppw2015)*, vol. 645, pp. UNSP 012002.

26. De Kock, M.B., Eggers, H.C. & Trainor, T.A. 2015, "Optimal modeling of 1D azimuth correlations in the context of Bayesian inference", *Physical Review C*, vol. 92, no. 3, pp. 034908.
27. Devi, Y.C., Prajapat, S., Mukhopadhyay, A.K., Chakraborty, B. & Scholtz, F.G. 2015, "Connes distance function on fuzzy sphere and the connection between geometry and statistics", *Journal of Mathematical Physics*, vol. 56, no. 4, pp. 041707.
28. Diaz-Mendez, R., Mezzacapo, F., Cinti, F., Lechner, W. & Pupillo, G. 2015, "Monodisperse cluster crystals: Classical and quantum dynamics", *Physical Review E*, vol. 92, no. 5, pp. 052307.
29. Dominguez, C.A., Hernandez, L.A., Schilcher, K. & Spiesberger, H. 2015, "Chiral sum rules and vacuum condensates from tau-lepton decay data", *Journal of High Energy Physics*, , no. 3, pp. 053.
30. Dutta, S., Goyal, A., Kumar, M. & Mellado, B. 2015, "Measuring anomalous W_{tb} couplings at $e(-) p$ collider", *European Physical Journal C*, vol. 75, no. 12, pp. 577.
31. Giataganas, D. & Goldstein, K. 2015, "Tension of confining strings at low temperature", *Journal of High Energy Physics*, , no. 2, pp. 123.
32. Giraldi, F. 2015, "Energy range for quantum coherence", *Physical Review a*, vol. 91, no. 6, pp. 062112.
33. Giraldi, F. 2015, "Logarithmic decays of unstable states", *European Physical Journal D*, vol. 69, no. 1, pp. 5.
34. Giraldi, F. 2015, "Transcendental equations in the Schwinger-Keldysh nonequilibrium theory and nonvanishing correlations", *Journal of Mathematical Physics*, vol. 56, no. 9, pp. 093504.
35. Giraldi, F. & Petruccione, F. 2015, "Anomalies in non-Markovian quantum dynamics", *Journal of Physics B-Atomic Molecular and Optical Physics*, vol. 48, no. 3, pp. 035202.
36. Goldstein, K., Jejjala, V. & Nampuri, S. 2015, "Hot attractors", *Journal of High Energy Physics*, , no. 1, pp. 075.
37. Goyal, S.K., Konrad, T. & Diosi, L. 2015, "Unitary equivalence of quantum walks", *Physics Letters a*, vol. 379, no. 3, pp. 100-104.
38. Goyal, S.K., Roux, F.S., Forbes, A. & Konrad, T. 2015, "Implementation of multidimensional quantum walks using linear optics and classical light", *Physical Review a*, vol. 92, no. 4, pp. 040302.

39. Hanson, G.W., Gangaraj, S.A.H., Lee, C., Angelakis, D.G. & Tame, M. 2015, "Quantum plasmonic excitation in graphene and loss-insensitive propagation", *Physical Review a*, vol. 92, no. 1, pp. 013828.
40. Harmsen, G.E. 2015, "Quasi-normal Modes for Spin-3/2 Fields", *High Energy Particle Physics Workshop (Heppw2015)*, vol. 645, pp. UNSP 012003.
41. Hatefi, E. 2015, "On RR couplings, singularity structures and all order alpha' contact interactions to BPS string amplitudes", *Journal of High Energy Physics*, , no. 12.
42. Hatefi, E. 2015, "Remarks on the mixed Ramond-Ramond, open string scattering amplitudes of BPS, non-BPS and brane-anti-brane", *European Physical Journal C*, vol. 75, no. 11, pp. 517.
43. Heiss, W.D. 2015, "Green's Functions at Exceptional Points", *International Journal of Theoretical Physics*, vol. 54, no. 11, pp. 3954-3959.
44. Heiss, W.D. & Wunner, G. 2015, "Resonance scattering at third-order exceptional points", *Journal of Physics A-Mathematical and Theoretical*, vol. 48, no. 34, pp. 345203.
45. Kanno, S., Shock, J.P. & Soda, J. 2015, "Entanglement negativity in the multiverse", *Journal of Cosmology and Astroparticle Physics*, , no. 3, pp. 015.
46. Kastner, M. 2015, "Entanglement-enhanced spreading of correlations", *New Journal of Physics*, vol. 17, pp. 123024.
47. Kastner, M. & van den Worm, M. 2015, "Relaxation timescales and prethermalization in d-dimensional long-range quantum spin models", *Physica Scripta*, vol. T165, pp. 014039.
48. Kemp, G. 2015, "SO(N) restricted Schur polynomials", *Journal of Mathematical Physics*, vol. 56, no. 2, pp. 022302.
49. Koch, R.d.M., Jevicki, A., Rodrigues, J.P. & Yoon, J. 2015, "Canonical formulation of O(N) vector/higher spin correspondence", *Journal of Physics A-Mathematical and Theoretical*, vol. 48, no. 10, pp. 105403.
50. Koch, R.d.M., Jevicki, A., Rodrigues, J.P. & Yoon, J. 2015, "Holography as a gauge phenomenon in Higher Spin duality", *Journal of High Energy Physics*, , no. 1, pp. 055.
51. Koch, R.d.M. & Nkumane, L. 2015, "Topological string correlators from matrix models", *Journal of High Energy Physics*, , no. 3, pp. 004.
52. Koch, R.d.M. & Ramgoolam, S. 2015, "CFT4 as SO(4,2)-invariant TFT2", *Nuclear Physics B*, vol. 890, pp. 302-349.

53. Kriel, J.N., van Zyl, H.J.R. & Scholtz, F.G. 2015, "Duality constructions from quantum state manifolds", *Journal of High Energy Physics*, , no. 11, pp. 140.
54. Kruse, A., Cornell, A.S., Kumar, M., Mellado, B. & Ruan, X. 2015, "Probing the Higgs boson via vector boson fusion with single jet tagging at the LHC", *Physical Review D*, vol. 91, no. 5, pp. 053009.
55. Kumar, M. 2015, "Single Top and Higgs Production in $e(-)p$ collisions", *High Energy Particle Physics Workshop (Heppw2015)*, vol. 645, pp. UNSP 012005.
56. Kumar, M., Ruan, X., Cornell, A.S., Islam, R. & Mellado, B. 2015, "Double Higgs production at FCC-he and prospects for measurements of self-coupling", *International Workshop on Discovery Physics at the Lhc (Kruger2014)*, vol. 623, pp. 012017.
57. Lindner, R.R., Aguirre, P., Baker, A.J., Bond, J.R., Crichton, D., Devlin, M.J., Essinger-Hileman, T., Gallardo, P., Gralla, M.B., Hilton, M., Hincks, A.D., Huffenberger, K.M., Hughes, J.P., Infante, L., Lima, M., Marriage, T.A., Menanteau, F., Niemack, M.D., Page, L.A., Schmitt, B.L., Sehgal, N., Sievers, J.L., Sifon, C., Staggs, S.T., Swetz, D., Weiss, A. & Wollack, E.J. 2015, "The Atacama Cosmology Telescope: the Laboca/act Survey of Clusters at all Redshifts", *Astrophysical Journal*, vol. 803, no. 2, pp. 79.
58. Madhavacheril, M., Sehgal, N., Allison, R., Battaglia, N., Bond, J.R., Calabrese, E., Caligiuri, J., Coughlin, K., Crichton, D., Datta, R., Devlin, M.J., Dunkley, J., Duenner, R., Fogarty, K., Grace, E., Hajian, A., Hasselfield, M., Hill, J.C., Hilton, M., Hincks, A.D., Hlozek, R., Hughes, J.P., Kosowsky, A., Louis, T., Lungu, M., McMahon, J., Moodley, K., Munson, C., Naess, S., Nati, F., Newburgh, L., Niemack, M.D., Page, L.A., Partridge, B., Schmitt, B., Sherwin, B.D., Sievers, J., Spergel, D.N., Staggs, S.T., Thornton, R., Van Engelen, A., Ward, J.T., Wollack, E.J. & Atacama Cosmology Telescope Collab 2015, "Evidence of Lensing of the Cosmic Microwave Background by Dark Matter Halos", *Physical Review Letters*, vol. 114, no. 15, pp. 151302.
59. Marais, A., Sinayskiy, I., Petruccione, F. & van Grondelle, R. 2015, "A quantum protective mechanism in photosynthesis", *Scientific Reports*, vol. 5, pp. 8720.
60. Masui, K., Lin, H., Sievers, J., Anderson, C.J., Chang, T., Chen, X., Ganguly, A., Jarvis, M., Kuo, C., Li, Y., Liao, Y., McLaughlin, M., Pen, U., Peterson, J.B., Roman, A., Timbie, P.T., Voytek, T. & Yadav, J.K. 2015, "Dense magnetized plasma associated with a fast radio burst", *Nature*, vol. 528, no. 7583, pp. 523-+.
61. Masuku, M., Mulokwe, M. & Rodrigues, J.P. 2015, "Large N matrix hyperspheres and the gauge-gravity correspondence", *Journal of High Energy Physics*, , no. 12, pp. 035.

62. Masuku, M. & Rodrigues, J.P. 2015, "De Alfaro, Fubini and Furlan from multi matrix systems", *Journal of High Energy Physics*, , no. 12, pp. 175.
63. Mkanya, A., Pellicane, G. & Lee, L.L. 2015, "Adsorption of Yukawa fluids on a hard wall", *Molecular Physics*, vol. 113, no. 9-10, pp. 1097-1107.
64. Narain, G., Sasakura, N. & Sato, Y. 2015, "Physical states in the canonical tensor model from the perspective of random tensor networks", *Journal of High Energy Physics*, , no. 1, pp. 010.
65. Nguimdo, G.M.D. & Joubert, D.P. 2015, "A density functional (PBE, PBEsol, HSE06) study of the structural, electronic and optical properties of the ternary compounds AgAlX₂ (X = S, Se, Te)", *European Physical Journal B*, vol. 88, no. 5, pp. 113.
66. Perez-Garcia, B., Francis, J., McLaren, M., Hernandez-Aranda, R.I., Forbes, A. & Konrad, T. 2015, "Quantum computation with classical light: The Deutsch Algorithm", *Physics Letters a*, vol. 379, no. 28-29, pp. 1675-1680.
67. Pillay, S., Mirza, A.R. & Petruccione, F. 2015, "Towards polarisation-encoded quantum key distribution in optical fibre networks", *South African Journal of Science*, vol. 111, no. 7-8, pp. 67-72.
68. Rohwer, C.M., Angeletti, F. & Touchette, H. 2015, "Convergence of large-deviation estimators", *Physical Review E*, vol. 92, no. 5, pp. 052104.
69. Sasakura, N. & Sato, Y. 2015, "Constraint algebra of general relativity from a formal continuum limit of canonical tensor model", *Journal of High Energy Physics*, , no. 10, pp. 109.
70. Sasakura, N. & Sato, Y. 2015, "Renormalization procedure for random tensor networks and the canonical tensor model", *Progress of Theoretical and Experimental Physics*, , no. 4, pp. 043B09.
71. Scholtz, F.G., Kriel, J.N. & Groenewald, H.W. 2015, "Thermodynamics of Fermi gases in three dimensional fuzzy space", *Physical Review D*, vol. 92, no. 12, pp. 125013.
72. Schuld, M., Sinayskiy, I. & Petruccione, F. 2015, "An introduction to quantum machine learning", *Contemporary Physics*, vol. 56, no. 2, pp. 172-185.
73. Schuld, M., Sinayskiy, I. & Petruccione, F. 2015, "Simulating a perceptron on a quantum computer", *Physics Letters a*, vol. 379, no. 7, pp. 660-663.
74. Schwarz, L., Cartarius, H., Wunner, G., Heiss, W.D. & Main, J. 2015, "Fano resonances in scattering: an alternative perspective", *European Physical Journal D*, vol. 69, no. 8, pp. 196.

75. Semin, V. & Petruccione, F. 2015, "Projection Operators Technique in the Theory of Open Quantum Systems", *Xii International Workshop on Quantum Optics (Iwqo-2015)*, vol. 103, pp. 02007.
76. Sergi, A. 2015, "Embedding quantum systems with a non-conserved probability in classical environments", *Theoretical Chemistry Accounts*, vol. 134, no. 6, pp. 79.
77. Sergi, A. & Zloshchastiev, K.G. 2015, "Time correlation functions for non-Hermitian quantum systems", *Physical Review a*, vol. 91, no. 6, pp. 062108.
78. Sewran, S., Zloshchastiev, K.G. & Sergi, A. 2015, "Non-Hamiltonian Modeling of Squeezing and Thermal Disorder in Driven Oscillators", *Journal of Statistical Physics*, vol. 159, no. 2, pp. 255-273.
79. Sinayskiy, I. & Petruccione, F. 2015, "Microscopic derivation of open quantum Brownian motion: a particular example", *Physica Scripta*, vol. T165, pp. 014017.
80. Sinayskiy, I. & Petruccione, F. 2015, "Microscopic derivation of open quantum walks", *Physical Review a*, vol. 92, no. 3, pp. 032105.
81. Storch, D., van den Worm, M. & Kastner, M. 2015, "Interplay of soundcone and supersonic propagation in lattice models with power law interactions", *New Journal of Physics*, vol. 17, pp. 063021.
82. Suleiman, M.S.H. & Joubert, D.P. 2015, "Quantum mechanical ab initio calculations of the structural, electronic and optical properties of bulk gold nitrides", *European Physical Journal B*, vol. 88, no. 10, pp. 305.
83. Suleiman, M.S.H. & Joubert, D.P. 2015, "Theoretical calculations on the structural, electronic, and optical properties of bulk silver nitrides", *Physica Status Solidi B-Basic Solid State Physics*, vol. 252, no. 12, pp. 2840-2852.
84. Sweke, R., Sinayskiy, I., Bernard, D. & Petruccione, F. 2015, "Universal simulation of Markovian open quantum systems", *Physical Review a*, vol. 91, no. 6, pp. 062308.
85. Tokarev, A., Avdeenkov, A.V., Langmi, H. & Bessarabov, D.G. 2015, "Modeling hydrogen storage in boron-substituted graphene decorated with potassium metal atoms", *International Journal of Energy Research*, vol. 39, no. 4, pp. 524-528.
86. Touchette, H. 2015, "Equivalence and Nonequivalence of Ensembles: Thermodynamic, Macrostate, and Measure Levels", *Journal of Statistical Physics*, vol. 159, no. 5, pp. 987-1016.

87. van Engelen, A., Sherwin, B.D., Sehgal, N., Addison, G.E., Allison, R., Battaglia, N., de Bernardis, F., Bond, J.R., Calabrese, E., Coughlin, K., Crichton, D., Datta, R., Devlin, M.J., Dunkley, J., Duenner, R., Gallardo, P., Grace, E., Gralla, M., Hajian, A., Hasselfield, M., Henderson, S., Hill, J.C., Hilton, M., Hincks, A.D., Hlozek, R., Huffenberger, K.M., Hughes, J.P., Koopman, B., Kosowsky, A., Louis, T., Lungu, M., Madhavacheril, M., Maurin, L., McMahon, J., Moodley, K., Munson, C., Naess, S., Nati, F., Newburgh, L., Niemack, M.D., Nolta, M.R., Page, L.A., Pappas, C., Partridge, B., Schmitt, B.L., Sievers, J.L., Simon, S., Spergel, D.N., Staggs, S.T., Switzer, E.R., Ward, J.T. & Wollack, E.J. 2015, "The Atacama Cosmology Telescope: Lensing of Cmb Temperature and Polarization Derived from Cosmic Infrared Background Cross-Correlation", *Astrophysical Journal*, vol. 808, no. 1, pp. 7.