

List of publications of Pr. Raelina Andriambololona (2011-2025)

- [1] Ravo Tokiniaina Ranaivoson, **Raelina Andriambololona**, Hanitriarivo Rakotoson, Roland Raboanary, Joël Rajaobelison, Philippe Manjakasoa Randriantsoa : Quantum phase space symmetry and sterile neutrinos, *Journal of Subatomic Particles and Cosmology*, Volume 3, 100039, ISSN 3050-4805, Elsevier, (2025)
- [2] Marie Jeanne Ramanandraibe, Roland Raboanary, Bernardine Vololoniaina, Joël Rajaobelison, **Raelina Andriambololona** : Guidelines on the Release of Patients Treated with Iodine – 131 for Thyroid Cancer in Nuclear Medicine: Case of Madagascar, *Nuclear Science* 9(2), 30-34 (2024)
- [3] Rivo Herivola M. Ravelonjato, Ravo Tokiniaina Ranaivoson, **Raelina Andriambololona**, Roland Raboanary, Rakotoson Hanitriarivo , Naivo Rabesiranana : Quantum and Relativistic Corrections to Maxwell–Boltzmann Ideal Gas Model from a Quantum Phase Space Approach, *Foundations of Physics* 53, 88 , Springer, (2023)
- [4] Ravo Tokiniaina Ranaivoson, **Raelina Andriambololona**, Rakotoson Hanitriarivo, Rivo Herivola M. Ravelonjato : Invariant quadratic operators associated with Linear Canonical Transformations and their eigenstates, arXiv:2008.10602 [quant-ph], *Journal of Physics Communications* 6 095010, IOP Publishing (2022)
- [5] Ravo Tokiniaina Ranaivoson, Voriraza Séraphin Hejesoa, **Raelina Andriambololona**, Nirina Gilbert Rasolofoson, Hanitriarivo Rakotoson, Jacqueline Rabesahala Raelina Andriambololona, Lala Rarivomanantsoa, Naivo Rabesiranana : Highlighting relations between Wave-particle duality, Uncertainty principle, Phase space and Microstates, arXiv:2205.08538 [quant-ph] (2022)
- [6] **Raelina Andriambololona**, Ravo Tokiniaina Ranaivoson, Rakotoson Hanitriarivo, Roland Raboanary : Sterile neutrino existence suggested from LCT covariance, arXiv:2109.03807 [hep-ph], *Journal of Physics Communications* 5 091001, IOP Publishing (2021)
- [7] Elise Octavie Rasoazanany, Natolotriniavo Nomena Fitiavana Andrianirinamanantsoa, Njaka Namelantsoa Andriamahenina, Herinirina Nomenjanahary Ravoson, Manovantsoatsiferana Harinoely, Lucienne Voahangilalao Rakotozafy, **Raelina Andriambololona**, Joël Rajaobelison, : Air Quality in Terms of Airborne Particulate Matters PM2.5 and PM10 at Analakely in Antananarivo City-Madagascar. *Sci J Anal Chem.* 9(4):96-103, (2021)
- [8] Ravo Tokiniaina Ranaivoson, **Raelina Andriambololona**, Rakotoson Hanitriarivo, Roland Raboanary : Linear Canonical Transformations in Relativistic Quantum Physics, arXiv:1804.10053 [quant-ph], *Physica Scripta* , vol 96, No. 6., IOP Publishing (2021)
- [9] Ravo Tokiniaina Ranaivoson, **Raelina Andriambololona**, Rakotoson Hanitriarivo, Wilfrid Chrysante Solofoarisina : Properties of Elementary Fermions of the Standard Model Deduced from Linear Canonical Transformations Representation, *International Journal of Applied Mathematics and Theoretical Physics*. Vol 6. No.1, pp. 1-6. doi: 10.11648/j.ijamtp.20200601.11, (2020)
- [10] **Raelina Andriambololona**, Ravo Tokiniaina Ranaivoson, Rakotoson Hanitriarivo : Study on a Spinorial Representation of Linear Canonical Transformation, *International Journal of Applied Mathematics and Theoretical Physics*. Vol. 5, No. 3, pp. 58-65. doi: 10.11648/j.ijamtp.20190503.12, (2019)

- [11] Hasimbola Damo Emile Randriamisy, **Raolina Andriambololona**, Hanitriarivo Rakotoson, Ravo Tokiniaina Ranaivoson, Roland Raboanary: Gaussian as Test Functions in Operator Valued Distribution Formulation of QED, *International Journal of Applied Mathematics and Theoretical Physics*, Vol. 4, Issue 4 (December 2018)
- [12] Rakotoson Hanitriarivo, **Raolina Andriambololona**, Ravo Tokiniaina Ranaivoson, Raboanary Roland: Dispersion Operators Algebra and its representation, *HEPMAD 18, 10th High-Energy Physics International Conference Madagascar-Antananarivo* (6-11 september 2018).
- [13] Ravo Tokiniaina Ranaivoson , **Raolina Andriambololona** , Rakotoson Hanitriarivo , Roland Raboanary : Fermion fields and fermion states in a phase space representation of quantum theory, *HEPMAD 18, 10th High-Energy Physics International Conference Madagascar-Antananarivo* (6-11 september 2018).
- [14] Ravo Tokiniaina Ranaivoson, **Raolina Andriambololona**, Rakotoson Hanitriarivo: Properties of Phase Space Wavefunctions and Eigenvalue Equation of Momentum Dispersion Operator, *International Journal of Applied Mathematics and Theoretical Physics*. Vol. 4, No. 1, 2018, pp. 8-14. (2018).
- [15] Ravo Tokiniaina Ranaivoson, **Raolina Andriambololona**, Hery Andrianiaina, Rakotoson Hanitriarivo, Density Functional Theory and its applications in Nanotechnology, *International Colloquium on Micro-Nanotechnology, NanoMada 2018*, Antananarivo, Madagascar, (April 2018)
- [16] Rakotoson Hanitriarivo, **Raolina Andriambololona**, Ravo Tokiniaina Ranaivoson, Roland Raboanary: Coordinate, Momentum and Dispersion operators in Phase space representation, arXiv: 1707.02223, July 2017, *International Journal of Latest Research in Science and Technology (IJLRST)*, ISSN (Online):2278-5299, (2017).
- [17] **Raolina Andriambololona**, Ravo Tokiniaina Ranaivoson, Hasimbola Damo Emile Randriamisy, Rakotoson Hanitriarivo: Dispersion Operators Algebra and Linear Canonical Transformations, arXiv:1608.02268 [quant-ph], *International Journal of Theoretical Physics*, ISSN 0020-7748, Vol. 52, No. 9, Springer, (2017).
- [18] **Raolina Andriambololona**, Ravo Tokiniaina Ranaivoson, Wilfrid Chrysante Solofoarisina: Arithmetic and Matricial Calculation, *Pure and Applied Mathematics Journal*. Vol. 5, No. 3, 2016, pp. 82-86. doi: 10.11648/j.pamj.20160503.14, (2016).
- [19] **Raolina Andriambololona**, Ravo Tokiniaina Ranaivoson, Hanitriarivo Rakotoson : Numeral System Change in Arithmetic and Matricial Formalism , *Pure and Applied Mathematics Journal*. Vol. 5, No. 3, 2016, pp. 87-92, (2016).
- [20] **Raolina Andriambololona**, Ravo Tokiniaina Ranaivoson, Rakotoson Hanitriarivo, Wilfrid Chrysante Solofoarisina: Study on Linear Canonical Transformation in a Framework of a Phase Space Representation of Quantum Mechanics, *International Journal of Applied Mathematics and Theoretical Physics*. Vol. 1, No. 1, pp. 1-8, (2015).
- [21] H. Andrianiaina, H. Rongen, **Raolina Andriambololona**, G. Rambolamanana, J.B. Ratongasoandrazana , Multi-Input Multi-Channel Analyzer (MIMCA) using universal FPGA board, arXiv:1503.02454, *International Journal of Innovative Research in Science, Engineering and Technology* , Vol. 4, Issue 3, March 2015.

- [22] **Raolina Andriambololona**, Ravo Tokiniaina Ranaivoson, Rakotoson Hanitriarivo, Victor Harison: Derivation of equations for scalar and fermion fields using properties of dispersion-codispersion operators, arXiv:1401.6526, *International Journal of Latest Research in Science and Technology* (IJLRST), (2014).
- [23] **Raolina Andriambololona**, A new operator giving integrals and derivatives operators for any order at the same time, arXiv:1405.0831, *International Journal of Innovative Research in Science, Engineering and Technology* , Vol. 3, Issue 7, July 2014
- [24] Ravo Tokiniaina Ranaivoson, **Raolina Andriambololona**, Rakotoson Hanitriarivo, Roland Raboanary: Study on a Phase Space Representation of Quantum Theory, arXiv:1304.1034 [quant-ph], *International Journal of Latest Research in Science and Technology*, ISSN(Online):2278-5299, Vol. 2, Issue 2 : Page No.26-35, March-April (2013).
- [25] Ravo Tokiniaina Ranaivoson, **Raolina Andriambololona**, Rakotoson Hanitriarivo: Time-Frequency Analysis and Harmonic Gaussian Functions, *Pure and Applied Mathematics Journal*. Vol. 2, No. 2, 2013, pp. 71-78, (2013).
- [26] **Raolina Andriambololona**, Rakotoson Hanitriarivo, Ravo Tokiniaina Ranaivoson, Roland Raboanary : Two Definitions of Fractional Derivative of Powers Functions, *Pure and Applied Mathematics Journal*. Vol. 2, No. 1, 2013, pp. 10-19. doi: 10.11648/j.pamj.20130201.12, (2013).
- [27] **Raolina Andriambololona**, Ravo Tokiniaina Ranaivoson, Rakotoson Hanitriarivo: Definitions of complex order integrals and derivatives using operator approach, *International Journal of Latest Research in Science and Technology*. Vol 1, Issue 4: Page No.317-323, November-December , (2012).
- [28] F.E. Saha, N. Rabesiranana, **Raolina Andriambololona**, H. Geckeis, C. Marquardt, N. Finck, Crystallographic Study of U-Th bearing minerals in Tranomaro, Anosy Region Madagascar, arXiv:1204.1499, (2012)
- [29] F.E. Saha, N. Rabesiranana, **Raolina Andriambololona**, H. Geckeis, C. Marquardt, N. Finck, Crystallographic Study of U-Th bearing minerals in Tranomaro, Anosy Region Madagascar, arXiv:1204.1499, (2012)
- [30] E.O. Rasoazanany, N.N. Andriamahenina, H.N. Ravoson, **Raolina Andriambololona**, L.V. Randriamanivo, H. Ramaherison, H. Ahmed, M. Harinoely, Air pollution studies in terms of PM_{2.5}, PM_{2.5-10}, PM₁₀, lead and black carbon in urban areas of Antananarivo – Madagascar, arXiv:1204.1498, (2012)
- [31] **Raolina Andriambololona**, Christian Rakotonirina, A Study of the Dirac-Sidharth Equation, Journal-ref: *Electronic Journal of Theoretical Physics* 8, 25 177, (2011)