

List of main refereed research publications

Mahouton Norbert Hounkonnou

July 19, 2026

- See full list of publications in:

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212. (with R. C. Avohou), *On the handle slide operation and universality polynomial invariants for binary Δ -matroids*, IJGMMP, <https://doi.org/10.1142/S0219887825400432>

211. (with M. M. Akouetegan, I. Aremua), *Barut-Girardello coherent states for the isotonic oscillator*, IJGMMP, <https://doi.org/10.1142/S0219887825400547>

210. (with J. Landalidji), *Kepler dynamics on a α -deformed Poisson manifold: Recursion operators and master symmetries*, IJGMMP, DOI: 10. 1142 / S 0219887825400468

209. (with F. Melong), *Generalized Rogers- Szego polynomials and identities: Part II* International Journal of Geometric Methods in Modern Physics Vol. 23, No. 6 (2026) 2640001 (26 pages) c© World Scientific Publishing Company DOI: 10. 1142 / S0219887826400013

208. (with S.L. Dongmo Tedo, C.O. Feulefack, F. Manfouo, R.M. Keumo Tsiaze, A.J. Fotue), *Energy level spectrum of polaron in metal halide perovskite pseudopotential quantum dot*, Physics Letters A 560 (2025) 130931, <https://doi.org/10.1016/j.physleta.2025.130931>

207. (with Akouetegan, Messan M.; Aremua, Isiaka; Sodoga, Komi; Mensah, Yao-gan), *Generalized hypergeometric coherent states for special functions: mathematical and physical properties*, J. Math. Phys. 66 (2025), no. 1, Paper No. 013504, 20 pp.

206. (with Olaiya Mathilde Adéoti, Aliou Diop & Romain Glèlè Kakai), *Bayesian flexible multilevel nonlinear models in infectious disease modeling using non - informative priors*, (2025) , Biostatistics & Epidemiology, 9:1, e2505290, DOI: 10.1080 / 24709360. 2025.2505290.

205. (with Akakpo, Yao Ihébami; Enakoutsu, Koffi; Assiamoua, Kofi V. S.), *Development of a Fourier-Stieltjes transform using an induced representation on locally compact groups*, Afr. Mat. 35 (2024), no. 3, Paper No. 68, 15 pp.
204. *Discrete Mechanics in Nonuniform Time α -Lattices*, Trends in Mathematics, Birkhäuser/Springer, Cham, (2024), 367–381. https://doi.org/10.1007/978-3-031-62407-0_24.
203. (with Fridolin Melong), *Geometry and probability on the noncommutative 2-torus in a magnetic field*, Teoret. Mat. Fiz. 220 (2024), no. 2, 377–395; translation in Theoret. and Math. Phys. 220 (2024), no. 2, 1385–1401.
202. (with F. Manfouo, O.C. Feulefack, R.M. Keumo Tsiaze and A.J. Fotue), *Bound Magneto-Acoustic Polaron in an Asymmetric Gaussian Confinement Potential Quantum Well*, Int J Theor Phys 63, 70 (2024); <https://doi.org/10.1007/s10773-024-05602-1>.
201. (with M. Mitrović), *Problematic of mathematics and social sciences and arts: a ubiquitous constructive interaction in algebraic modeling*, Math. Mind Springer, Cham, 2024, 3-29. ISBN: 978-3-031-37791-4; 978-3-031-37792-1.
200. (with M. Mitrović, P. Catarino), *Constructive semigroups with apartness - a state of the art*, Math. Mind Springer, Cham, 2024, 127-176. ISBN: 978-3-031-37791-4; 978-3-031-37792-1.
199. (with Fattoum Harrathi, Sami Mabrouk, and Sergei Silvestrov) *Construction and characterization of n -ary Hom-bialgebras and n -ary infinitesimal Hom-bialgebras*, Springer Proc. Math. Stat., 426 Springer, Cham, 2023, 399-428. ISBN: 978-3-031-32008-8; 978-3-031-32009-5.
198. (with Won S. Chung) *(Newton mechanics, Galilean relativity, and special relativity in α -deformed binary operation setting*, SciPost Phys. Proc. 14, 024 (2023); [doi:10.21468/SciPostPhysProc.14.024](https://doi.org/10.21468/SciPostPhysProc.14.024).
197. (with Gbeviewou Damien Houndedji), *(Hom-)(co)associative ternary (Co) algebras and infinitesimal ternary (Hom-)bialgebras*, STEAM-H: Sci. Technol. Eng. Agric. Math. Health Springer, Cham, 2023, 237–294. ISBN: 978-3-031-39333-4; 978-3-031-39334-1
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195. (with F. Melong), *Quantum polynomials from deformed quantum algebras: probability distributions, generating functions and difference equations*, Rev. Math.

Phys. 35 (2023), no. 9, Paper No. 2350019, 58 pp.

194. (with R. C. Avohou, J. Ben Geloun), *Universality for polynomial invariants on ribbon graphs with flags*, Discrete Applied Mathematics, 1–17 (2023); doi: 10.1016/j.dam. 2022. 11. 005.

193. (with K. Anani and R. Prud'homme), *An approximate analytical model for the frequency response of evaporating droplets under a mixed feeding regime*, Comptes Rendus, Mécanique, (in press) <https://doi.org/10.5802/crmeca.146>.

192. (with Villévo Adanhounmè and Melanija Mitrović), *Dynamics of COVID-19 pandemic: control problem and equilibrium stability characterization*, Mathematics for human flourishing in the time of COVID-19 and post COVID-19, Proceedings De Gruyter, ISBN 978–3–11–073862–9.

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189. (with M. N. Atchadé, Y. M. Sokadjo, and M. Mitrović) . *Did passenger air traffic significantly influence the spread of COVID-19 in the world ?* Mathematics for human flourishing in the time of COVID-19 and post COVID-19, Proceedings De Gruyter, ISBN 978–3–11–073862–9.

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188. (with M. N. Atchadé, Y. M. Sokadjo, M. Mitrović) *Risk estimate of COVID-19 spread between poverty clusters in Africa using Markov Chain modeling*, Mathematics for human flourishing in the time of COVID-19 and post COVID-19. Proceedings De Gruyter, ISBN 978–3–11–073862–9.

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181. (with J. H. Lokonon, W. A. Hounkpatin, S. U. Bodjrenou, M. Y. Sokadjo, N. I. Dossou, M. N. Atchadé,), *The role of exclusive breastfeeding and water sources in the reduction of stunting: Mediation and moderation analysis of cross-sectional data among Beninese children aged 6 months*. Progress in Nutrition, **24(2)** (2022).
180. (with Mafoya Landry Dassoundo and Chengming Bai) *Anti-flexible bialgebras*, Journal of Algebra and Its Applications(2022) 2250212 (23 pages) (2022); <https://doi.org/10.1142/S0219498822502127>
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