

Liste de publications de MATH

Articles dans des revues avec comité de lecture

A paraître

García-Portugués, E., Verdebout, T., & Paindaveine, D. (2026). On a class of Sobolev tests for symmetry of directions, their detection thresholds, and asymptotic powers. *Journal of the American Statistical Association*.

Boucher, M., Francq, C., Goto, Y., & Verdebout, T. (2026). On runs tests for directional data and their local and asymptotic optimality properties. *Statistica sinica*.

Fernandez De Marcos, A., García-Portugués, E., & Verdebout, T. (2026). On m-points uniformity tests on hyperspheres. *Bernoulli*.

Brécheteau, C., & Verdebout, T. (2026). Testing for reflective symmetry on the circle with characteristic functions. *Metrika*.

Ebner, B., García-Portugués, E., & Verdebout, T. (2026). High-dimensional Sobolev tests on hyperspheres. *Bernoulli*.

Bolón Rodríguez, D., Paindaveine, D., & Verdebout, T. (2026). Inference on location for noisy directional data: A Le Cam approach to quantify the value of the hyperspherical a priori information. *Bernoulli*.

Kong, T.-T., Feng, Y. Q., Hou, D. D., Leemans, D., & Qu, H. P. (2026). Chiral polytopes of order $2p^m$. *Ars Mathematica contemporanea*.

Fischer, A., Gaunt, R., & Swan, Y. (2025). Stein's Method of Moments on the Sphere. *Bernoulli*.

Batista, E., Hautekiet, W., Saracco, P., & Vercruysse, J. (2025). Towards a classification of simple partial comodules of Hopf algebras. *Journal of algebra*, 664, 312-347. doi:10.1016/j.jalgebra.2024.10.005

Denuit, M., Petit, R., Simon, P.-A., & Trufin, J. (2026). Recursive Partitioning based on Gini index for insurance pricing. *European Actuarial Journal*.

Bernou, A., & Duerinckx, M. (2026). Uniform-in-time estimates on the size of chaos for interacting Brownian particles. *Probability theory and related fields*.

Cummings, C., Gratz, S., Kirkman, E., Letz, J., Rock, D., & Spenko, Š. (2026). An equivalence linking CM-types A_{∞} and D_{∞} . *Proceedings of the American Mathematical Society*.

2026

Arends, J., Lyu, G., Mesfioui, M., Perrone, E., & Trufin, J. (2026). Spearman's rho for zero-inflated count data: Formulation and attainable bounds. *Statistics & probability letters*, 237, 110826. doi:10.1016/j.spl.2026.110826

Kung, F., & Spenko, Š. (2026). Comparison of cohomological and K-theoretical Hall algebra. *Journal of algebra*, 708, 270-285. doi:10.1016/j.jalgebra.2026.05.015

Zhang, W.-J., & Leemans, D. (2026). Testing chirality on hypertopes. *Journal of algebraic combinatorics*, 63, 61.

Leemans, D., & Mulpas, J. (2026). Two gluing methods for string C-group representations of the symmetric groups. *Combinatorial Theory*, 6(1), 13.

Alonso Garcia, J., Thirurajah, S., & Ziveyi, J. (2026). A two-account pricing framework for hybrid variable annuity contract embedded with living and death benefit riders. *ASTIN bulletin*, 1-28. doi:10.1017/asb.2026.10098

Delaby, R., Leemans, D., & Tranchida, P. A. (2026). Geometries with trialities arising from linear spaces. *Algebraic combinatorics*, 9(2), 379-402.

Spenko, Š., & Van den Bergh, M. (2026). A class of perverse schobers in Geometric Invariant Theory. *Selecta mathematica, New series*, 32(2), 19.

Peralvo Maroto, L., Paindaveine, D., & Verdebout, T. (2026). Rank tests for PCA under weak identifiability. *Annals of statistics*, 54, 543-569.

Leemans, D., & Mulpas, J. (2026). Two gluing methods for string C-group representations of the symmetric groups. *Combinatorial Theory*, 6(1). doi:10.5070/C66165700

Leemans, D., & Vandenschrick, A. (2026). On simple groups that admit a string C-group representation. *The art of discrete and applied mathematics*, 9, #1.07.

Kong, T.-T., Feng, Y. Q., Hou, D. D., Leemans, D., & Qu, H. P. (2026). Chiral 3-polytopes of order 2pm. *Ars Mathematica contemporanea*. doi:10.26493/1855-3974.3716.b64

Bernou, A., Duerinckx, M., & Ménard, M. (2026). Creation of chaos for interacting Brownian particles. *Stochastic processes and their applications*, 193, 104849. doi:https://doi.org/10.1016/j.spa.2025.104849

Cheikh-Ali, H., & Premoselli, B. (2026). COMPACTNESS RESULTS FOR SIGN-CHANGING SOLUTIONS OF CRITICAL NONLINEAR ELLIPTIC EQUATIONS OF LOW ENERGY. *Analysis and PDE*, 19(3), 587-626. doi:10.2140/apde.2026.19.587

2025

Duerinckx, M., Lemm, M., & Pagano, F. (2025). On Bourgain's approach to stochastic homogenization. *Archive for rational mechanics and analysis*, 249, 81. doi:https://doi.org/10.1007/s00205-025-02145-5

Jansen, M. (2025). Constructing wavelets by welding segments of smooth functions. *Journal of Computational and Applied Mathematics*, 477, 117160.

- Duerinckx, M., & Gloria, A. (2025). Large-scale dispersive estimates for acoustic operators: homogenization meets localization. *Journal of functional analysis*, 289(8), 111068. doi:<https://doi.org/10.1016/j.jfa.2025.111068>
- Duerinckx, M., & Jabin, P.-E. (2025). Dynamics of point-vortex systems near thermal equilibrium: relaxation or not? *Probability and Mathematical Physics*, 6(4), 1181-1244. doi:[10.2140/pmp.2025.6.1181](https://doi.org/10.2140/pmp.2025.6.1181)
- Simon, P.-A., Denuit, M., & Trufin, J. (2025). DPTree and DPForest: Tree-based methods fulfilling demographic parity. *Annals of Actuarial Science*, 1-19. doi:[10.1017/S1748499525100092](https://doi.org/10.1017/S1748499525100092)
- Denuit, M., Huyghe, J., Simon, P.-A., & Trufin, J. (2025). Tweedie dominance for autocalibrated predictors and Laplace transform order. *Scandinavian actuarial journal*. doi:[10.1080/03461238.2025.2557295](https://doi.org/10.1080/03461238.2025.2557295)
- Bonheure, D., & Galdi, G. P. (2025). Global Weak Solutions to a Time-Periodic Body-Liquid Interaction Problem. *Annales de l'Institut Henri Poincaré. Analyse non linéaire*, 42(6), 1509–1541.
- Leemans, D., & Toledo Roy, M. A. (2025). Faithful and thin non-polytopal maniplexes. *Ars Mathematica contemporanea.*, P1.04.
- Hou, D. D., Feng, Y. Q., & Leemans, D. (2025). Regular 3-polytopes of order $2n$ p. *Journal of group theory*. doi:[10.1515/jgth-2024-0154](https://doi.org/10.1515/jgth-2024-0154)
- Leemans, D., Stokes, K., & Tranchida, P. (2025). Flag transitive geometries with trialities and no dualities coming from Suzuki groups. *Journal of combinatorial theory. Series A*, 213, 106033. doi:[10.1016/j.jcta.2025.106033](https://doi.org/10.1016/j.jcta.2025.106033)
- Hou, D. D., Feng, Y. Q., Leemans, D., & Qu, H. P. (2025). String C-groups of order $4pm$. *Communications in algebra*. doi:[10.1080/00927872.2025.2459858](https://doi.org/10.1080/00927872.2025.2459858)
- Araujo-Pardo, G., Conder, M., Garcia Colin, N., Kiss, G., & Leemans, D. (2025). A note on girth-diameter cages. *The art of discrete and applied mathematics*, 8, 3.06. doi:[10.26493/2590-9770.1743.19f](https://doi.org/10.26493/2590-9770.1743.19f)
- Fischer, A., Gaunt, R., & Swan, Y. (2025). Stein's method of moments for truncated multivariate distributions. *Electronic Journal of Statistics*, 19(1), 1784-1808. doi:[10.1214/25-EJS2373](https://doi.org/10.1214/25-EJS2373)
- Ebner, B., Fischer, A., Gaunt, R., Picker, B., & Swan, Y. (2025). Stein's method of moments. *Scandinavian journal of statistics*. doi:[10.1111/sjos.70003](https://doi.org/10.1111/sjos.70003)
- Jezernik, U., & Spenko, Š. (2025). Additive diameters of group representations. *arXiv.org*.
- Fiorini, S., Joret, G., Weltge, S., & Yuditsky, Y. (2025). Integer programs with bounded subdeterminants and two nonzeros per row. *Journal of the Association for Computing Machinery*, 72(1), 3.

Aprile, M. F., Fiorini, S., Joret, G., Kober, S., Seweryn, M. M., Weltge, S., & Yuditsky, Y. (2025). Integer programs with nearly totally unimodular matrices: the cographic case*. *Proceedings of the annual ACM-SIAM Symposium on Discrete Algorithms*, 2301-2312.

Boucher, M., Meilán-Vila, A., Meurice, V., & Verdebout, T. (2025). On a modified Watson test for spherical location. *Statistical papers*, 66(4), 79. doi:10.1007/s00362-024-01651-0

Fine, J., He, W., & Yao, C. (2025). Convergence of the hypersymplectic flow on T4 with T3#symmetry. *Journal of the London Mathematical Society*, 111(6). doi:10.1112/jlms.70217

Alonso Garcia, J., Boado-Penas, M. D. C., & Eisenberg, J. (2025). Assessing public pensions using risk measures: pay-as-you-go versus mixed schemes. *Scandinavian actuarial journal*, 1-27. doi:10.1080/03461238.2025.2514601

Benth, F. E., Deelstra, G., & Kozpinar, S. (2025). Pricing energy quanto options: a regime-switching framework with stochastic interest rates. *Stochastics*. doi:10.1080/17442508.2025.2541874

Duerinckx, M., Ertzbischoff, L., Girodroux-Lavigne, A., & Höfer, R. R. (2025). Hydrodynamic limit of multiscale viscoelastic models for rigid particle suspensions. *Archive for rational mechanics and analysis*, 249, 23. doi:https://doi.org/10.1007/s00205-025-02092-1

Germain, G., & Swan, Y. (2025). Bounding the L1-Distance Between One-Dimensional Continuous and Discrete Distributions via Stein's Method. *Journal of theoretical probability*, 38(1), 9. doi:10.1007/s10959-024-01373-x

Premoselli, B., & Robert, F. (2025). One-bubble nodal blow-up for asymptotically critical stationary Schrödinger-type equations. *Journal of functional analysis*, 288(6), 110808. doi:10.1016/j.jfa.2024.110808

Bonheure, D., Galdi, G. P., & Gazzola, F. (2025). Flow-induced oscillations via Hopf bifurcation in a fluid–solid interaction problem. *Mathematische Annalen*. doi:10.1007/s00208-025-03179-6

Bonheure, D., Galdi, G. P., & Patriarca, C. (2025). Forced Oscillations of a Spring-Mounted Body by a Viscous Liquid: Rotational Case. *Pure and Applied Analysis*, 7, 4.

Jansen, M. (2025). Multiscale local polynomial density estimation. *Communications in statistics. Theory and methods*, 54(16), 5164-5190. doi:10.1080/03610926.2024.2434933

Belhouari, O., Deelstra, G., & Devolder, P. (2025). Hybrid life insurance valuation based on a new standard deviation premium principle in a stochastic interest rate framework. *European Actuarial Journal*, 15, 45-72.

Rapports de recherche, comptes rendus, lettres à l'éditeur, working papers

2025

Denuit, M., Trufin, J., & Verdebout, T. (2025). Comparison of predictors' performance in insurance pricing: testing for Bregman dominance based on Murphy diagrams. *European Actuarial Journal*, 15, 493-504. doi:10.1007/s13385-025-00429-4