

Liste de publications de INFO

Articles dans des revues avec comité de lecture

A paraître

Joret, G., & Petit, R. (2025). A Caro-Wei bound for induced linear forests in graphs. *SIAM journal on discrete mathematics*.

Dujmović, V. V., Hickingbotham, R., Hodor, J., Joret, G., La, H., Micek, P., Morin, P., Rambaud, C., & Wood, D. R. (2025). The grid-minor theorem revisited. *Combinatorica*.

Barral, H., Abdeddaïm, Y., Masson, D., & Goossens, J. (2025). Response time analysis for sporadic tasks in uniprocessor fixed-priority scheduling with starting and resuming delays. *Proceedings of Real-Time and Network Systems*.

Alkoudsi, I., Baruah, S., Ekberg, P., Fohler, G., Goossens, J., & Moslehi, M. (2025). Extending Periodic Task Sets with Sporadic Tasks: Computational Complexity and Exact Feasibility Tests. *Proceedings of Real-Time and Network Systems*.

Gaspard, T., Bertout, A., Richard, P., Grolleau, E., & Goossens, J. (2025). An unfair optimal scheduling algorithm for uniform multiprocessors. *Proceedings - Design, Automation, and Test in Europe Conference and Exhibition*.

Schuh, M., Maiza, C., Raymond, P., Ferres, B., Goossens, J., & De Dinechin, B. D. (2025). Communication and Shared Memory Efficient Mapping Techniques of Real-Time DAGs upon Clustered Multicore Platforms. *Proceedings of Real-Time and Network Systems*.

2025

Gilchrist, V., Marco, L., Petit, C., & Tang, G. (2025). On the security of two blind signatures from code equivalence problems. *IACR communications in cryptology*, 2(4).

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

Panny, L., Petit, C., & Stopar, M. (2025). KLaPoTi: An asymptotically efficient isogeny group action from 2-dimensional isogenies. *IACR communications in cryptology*, 2(3).

Akitaya, H. A., Biniarz, A., De Carufel, J. L., Iacono, J., Smid, M. M., Theocharous, L., Aloupis, G., Bose, P., Gavaille, C., Kleist, L., & Souvaine, D. D. (2025). An Improved Bound for Plane Covering Paths. *Leibniz international proceedings in informatics*, 351, 75. doi:10.4230/LIPIcs.ESA.2025.75

Brodal, G. S., Iacono, J., Meyer, U., Sitchinava, N., Goodrich, M. M., Lo, J., Pagan, V., & Svenning, R. (2025). External-Memory Priority Queues with Optimal Insertions. *Leibniz international proceedings in informatics*, 351, 5. doi:10.4230/LIPIcs.ESA.2025.5

Markowitch, O., & Dricot, J.-M. (2025). IoT Security: Threat Detection, Analysis, and Defense. *Future Internet*, 17(9), 399. doi:10.3390/fi17090399

Balachander, M., Filiot, E., & Raskin, J.-F. (2025). LTL Reactive Synthesis with a Few Hints. *Journal of automated reasoning*, 69(3), 24. doi:10.1007/s10817-025-09737-6

Montero Porras, E., Suchon, R., Lenaerts, T., & Fernandez Domingos, E. (2025). From self-interest to collective action: The role of defaults in governing common resources. *PLoS one*, 20(9), e0331348. doi:10.1371/journal.pone.0331348

Njoku, U. U., Abelló, A., Bilalli, B., & Bontempì, G. (2025). Towards fair machine learning using many-objective feature selection. *Applied Soft Computing*, 181, 113411. doi:10.1016/j.asoc.2025.113411

Piron, A., Szymczak, F., Folon, L., Crouch, D. J. M., Papadopoulou, T., Lytrivi, M., Tong, Y., Alvelos, M. I., Colli, M. L., Yi, X., Pekalski, M. M., Hatzikotoulas, K., Huerta-Chagoya, A., Taylor, H. J., Type 2 Diabetes Global Genomics Initiative, DeFrance, M., Todd, J. A., Eizirik, D. L., Mercader, J. M., & Cnop, M. (2025). Identification of novel type 1 and type 2 diabetes genes by co-localization of human islet eQTL and GWAS variants with colocRedRibbon. *Cell Genomics*, 101004. doi:10.1016/j.xgen.2025.101004

Saponara, M., Fernandez Domingos, E., Pacheco, J. M. D. S. J., & Lenaerts, T. (2025). Evolution favours positively biased reasoning in sequential interactions with high future gains. *Journal of the Royal Society interface*, 22(229). doi:10.1098/rsif.2025.0153

Balachander, M., Filiot, E., Gentillini, R., & Tzevelekos, N. (2025). Register Automata with Permutations. *Leibniz international proceedings in informatics*, 345, 14. doi:10.4230/LIPIcs.MFCS.2025.14

Biniáz, A., Bose, P., Chung, C., De Carufel, J. L., Iacono, J., Maheshwari, A., Odak, S., Smid, M. M., & Tóth, C. D. (2025). Tight Bounds on the Number of Closest Pairs in Vertical Slabs. *Leibniz international proceedings in informatics*, 349, 8. doi:10.4230/LIPIcs.WADS.2025.8

Dujmović, V. V., Joret, G., Micek, P., Morin, P. P., & Wood, D. (2025). Planar Graphs in Blowups of Fans. *Proceedings of the annual ACM-SIAM Symposium on Discrete Algorithms*, 3382-3391.

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.

Dujmović, V. V., Joret, G., Micek, P., & Morin, P. (2025). Tight bound for the Erdős-Pósa property of tree minors. *Combinatorics, probability & computing*, 34(2), 321-325.

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.

Terrucha, I., Fernandez Domingos, E., Suchon, R., Santos, F. F., Simoens, P., & Lenaerts, T. (2025). Humans program artificial delegates to accurately solve collective-risk dilemmas but lack precision. *Proceedings of the National Academy of Sciences of the United States of America*, 122(25). doi:10.1073/pnas.2319942121

- Iacono, J., & Nekrich, Y. (2025). Incremental Planar Nearest Neighbor Queries with Optimal Query Time. *Leibniz international proceedings in informatics*, 332, 59. doi:10.4230/LIPIcs.SoCG.2025.59
- Dallant, J., & Iacono, J. (2025). Conditional Lower Bounds for Dynamic Geometric Measure Problems. *ACM transactions on algorithms*, 21(2), 23. doi:10.1145/3727878
- Njoku, U. U., Abelló, A., Bilalli, B., & Bontempì, G. (2025). On many-objective feature selection and the need for interpretability. *Expert systems with applications*, 267, 126191. doi:10.1016/j.eswa.2024.126191
- Paldino, G. M., Caelen, O., Oueslati, M., Ansay, M., Johanesa, T. V. T., & Bontempì, G. (2025). Integrating Domain Adaptation and Causal Discovery in Digital Twins for Plastic Injection Molding. *IEEE International Conference on Pervasive Computing and Communications Workshops, PerCom Workshops*, (2025), 110-115. doi:10.1109/PerComWorkshops65533.2025.00050
- Filiot, E., Jecker, I. R., Puppis, G., Löding, C., Muscholl, A., & Winter, S. (2025). Finite-valued Streaming String Transducers. *TheoretCS*, Volume 4. doi:10.46298/theoretcs.25.1
- Jansen, M. (2025). Multiscale local polynomial density estimation. *Communications in statistics. Theory and methods*, 54(16), 5164-5190. doi:10.1080/03610926.2024.2434933
- Bhattacharyya, R., Kollath, S., & Petit, C. (2025). Code-Based Fully Dynamic Accountable Ring Signatures and Group Signatures Using the Helper Methodology. *Lecture notes in computer science*, 15659 LNCS, 84-103. doi:10.1007/978-981-96-9098-5_5
- Castrycck, W., Decru, T., Kutas, P., Laval, A., Petit, C., & Ti, Y. B. (2025). KLPT2: Algebraic Pathfinding in Dimension Two and Applications. *Lecture notes in computer science*, 16000 LNCS, 167-200. doi:10.1007/978-3-032-01855-7_6
- Chen, M., & Petit, C. (2025). Computing the Endomorphism Ring of a Supersingular Elliptic Curve from a Full Rank Suborder. *Lecture notes in computer science*, 15606 LNCS, 446-474. doi:10.1007/978-3-031-91095-1_16
- Kunzweiler, S., Maino, L., Moriya, T., Petit, C., Pope, G., Robert, D., Stopar, M., & Ti, Y. B. (2025). Radical 22-Isogenies and Cryptographic Hash Functions in Dimensions 1, 21, 2 and 33. *Lecture notes in computer science*, 15676 LNCS, 265-299. doi:10.1007/978-3-031-91826-1_9
- Cai, S., Chen, M., & Petit, C. (2025). Faster Algorithms for Isogeny Computations over Extensions of Finite Fields. *Lecture notes in computer science*, 14966 LNCS, 136-155. doi:10.1007/978-3-031-82380-0_4

2024

- Terrucha, I., Fernández Domingos, E., Simoens, P., & Lenaerts, T. (2024). Committing to the wrong artificial delegate in a collective-risk dilemma is better than directly committing mistakes. *Scientific reports*, 14(1), 10460. doi:10.1038/s41598-024-61153-9

Picard, S., Paolillo, A., Geeraerts, G., & Goossens, J. (2024). Exact schedulability test for sporadic mixed-criticality real-time systems using antichains and oracles. *Proceedings of Real-Time and Network Systems*. doi:<https://doi.org/10.1145/3696355.3699702>

Goossens, J., & Masson, D. (2024). Robust Schedulability Tests for Fixed Job Priorities: Addressing Context Switch Costs with Non-Resumable Delays. *Proceedings of Real-Time and Network Systems*. doi:<https://doi.org/10.1145/3696355.3699697>

Lunghi, D., Simitsis, A., & Bontempi, G. (2024). Assessing adversarial attacks in real-world fraud detection. *Proceedings of the IEEE International Conference on Web Services, ICWS*, 27-34. doi:10.1109/ICWS62655.2024.00021

Decru, T., Fouotsa, T. B., Frixons, P., Gilchrist, V., & Petit, C. (2024). Attacking trapdoors from matrix products. *IACR communications in cryptology*, 3.

Balachander, M., Filiot, E., & Gentilini, R. (2024). Passive Learning of Regular Data Languages in Polynomial Time and Data. *Leibniz international proceedings in informatics*, 311, 10. doi:10.4230/LIPIcs.CONCUR.2024.10

Rivière, Q., Raskin, V., de Melo, R., Boutet, S., Corso, M., Defrance, M., Webb, A. A. R., Verbruggen, N., & Anoman, D. A. (2024). Effects of light regimes on circadian gene co-expression networks in *Arabidopsis thaliana*. *Plant Direct*, 8(8). doi:10.1002/pld3.70001

Distel, M., Dujmović, V. V., Eppstein, D., Hickingbotham, R., Joret, G., Micek, P., Morin, P. P., Seweryn, M. M., & Wood, D. (2024). Product structure extension of the Alon-Seymour-Thomas theorem. *SIAM journal on discrete mathematics*, 38(3), 2095-2107. doi:10.1137/23M1591773

Dujmović, V. V., Hickingbotham, R., Joret, G., Micek, P., Morin, P. P., & Wood, D. (2024). The Excluded Tree Minor Theorem Revisited. *Combinatorics, probability & computing*, 33, 85-90. doi:10.1017/S0963548323000275

Dujmović, V. V., Hickingbotham, R., Hodor, J., Joret, G., La, H., Micek, P., Morin, P., Rambaud, C., & Wood, D. R. (2024). The grid-minor theorem revisited. *Proceedings of the annual ACM-SIAM Symposium on Discrete Algorithms*, 1241-1245.

Joret, G., & Rambaud, C. (2024). Neighborhood Complexity of Planar Graphs. *Combinatorica*, 44, 1115-1148. doi:10.1007/s00493-024-00110-6

Brianski, M., Joret, G., & Seweryn, M. M. (2024). Pathwidth vs cocircumference. *SIAM journal on discrete mathematics*, 38(1), 857-866. doi:10.1137/23M158663X

Joret, G., Micek, P., Pilipczuk, M., & Walczak, B. (2024). Cliquewidth and dimension. *Proceedings of the annual ACM-SIAM Symposium on Discrete Algorithms*, 1437-1446.

Filiot, E., Jecker, I. R., Löding, C., Muscholl, A., Puppis, G., & Winter, S. (2024). Finite-valued Streaming String Transducers. *Proceedings - Symposium on Logic in Computer Science.*, 33. doi:10.1145/3661814.3662095

- Iacono, J., & Micek, P. (2024). Vertex Ranking of Degenerate Graphs. *arXiv.org*, abs/2404.16340. doi:10.48550/ARXIV.2404.16340
- Haeupler, B., Hlad'ik, R., Iacono, J., Rozhon, V., Tarjan, R., & Tetek, J. (2024). Fast and Simple Sorting Using Partial Information. *arXiv.org*, abs/2404.04552. doi:10.48550/ARXIV.2404.04552
- Kirchsteiger, G., Lenaerts, T., & Suchon, R. (2024). Voluntary versus mandatory information disclosure in the sequential prisoner's dilemma. *Economic theory*. doi:10.1007/s00199-024-01563-y
- Chen, M., Lai, Y.-F., Laval, A., Marco, L., & Petit, C. (2024). Malleable Commitments from Group Actions and Zero-Knowledge Proofs for Circuits Based on Isogenies. *Lecture notes in computer science*, 14459 LNCS, 221-243. doi:10.1007/978-3-031-56232-7_11
- Nachtegael, C., De Stefani, J., Cnudde, A., & Lenaerts, T. (2024). DUVEL: an active-learning annotated biomedical corpus for the recognition of oligogenic combinations. *Database*, 2024(2024), baae039. doi:10.1093/database/baae039
- Lillepea, K., Juchnewitsch, A. G., Kasak, L., Valkna, A., Dutta, A., Pomm, K., Poolamets, O., Nagirnaja, L., Tamp, E., Mahyari, E., Vihljajev, V., Tjagur, S., Papadimitriou, S., Riera-Escamilla, A., Versbraegen, N., Farnetani, G., Castillo-Madeen, H., Sütt, M., Kübarsepp, V., Tennisberg, S., Korrovits, P., Krausz, C., Aston, K. I., Lenaerts, T., Conrad, D. D., Punab, M., & Laan, M. (2024). Toward clinical exomes in diagnostics and management of male infertility. *American journal of human genetics*, 111(5), 877-895. doi:10.1016/j.ajhg.2024.03.013
- Booher, J., Bowden, R., Doliskani, J., Boris Fouotsa, T., Galbraith, S. D., Kunzweiler, S., Merz, S. P., Petit, C., Smith, B. D., Stange, K. K., Ti, Y. B., Vincent, C., Voloch, J. F., Weitkämper, C., & Zobernig, L. (2024). Failing to Hash Into Supersingular Isogeny Graphs. *Computer journal*. doi:10.1093/comjnl/bxae038
- Bhattacharya, S., Lefèvre, L., Chatzistergos, T., Hayakawa, H., & Jansen, M. (2024). RudolfWolf to AlfredWolf: The Transfer of the Reference Observer in the International Sunspot Number Series (1876–1893). *Solar physics*, 299, 45.
- Bruyère, V., Fievet, B., Raskin, J.-F., & Tamines, C. (2024). Stackelberg-Pareto Synthesis. *ACM transactions on computational logic*, 25(2), 14. doi:10.1145/3651162
- Hatzel, M., Joret, G., Micek, P., Pilipczuk, M., Ueckerdt, T., & Walczak, B. (2024). Tight Bound on Treedepth in Terms of Pathwidth and Longest Path. *Combinatorica*, 44(2), 417-427. doi:10.1007/s00493-023-00077-w
- Gravel, B., Renaux, A., Papadimitriou, S., Smits, G., Nowe, A., & Lenaerts, T. (2024). Prioritization of oligogenic variant combinations in whole exomes. *Bioinformatics*, 40(4), btae184. doi:10.1093/bioinformatics/btae184
- Carqueira, V., Torgo, L., & Bontempi, G. (2024). Instance-based meta-learning for conditionally dependent univariate multi-step forecasting. *International journal of forecasting*. doi:10.1016/j.ijforecast.2023.12.010

Simar, C., Colot, M., Cebolla Alvarez, A. M., Petieau, M., Chéron, G., & Bontempi, G. (2024). Machine learning for hand pose classification from phasic and tonic EMG signals during bimanual activities in virtual reality. *Frontiers in Neuroscience*, 18. doi:10.3389/fnins.2024.1329411

Paldino, G. M., De Caro, F., De Stefani, J., Vaccaro, A. A., & Bontempi, G. (2024). Transfer learning-based methodologies for Dynamic Thermal Rating of transmission lines. *Electric power systems research*, 229, 110206. doi:10.1016/j.epsr.2024.110206

Dallant, J., & Iacono, J. (2024). How fast can we play Tetris greedily with rectangular pieces? *Theoretical computer science*, 992, 114405. doi:10.1016/j.tcs.2024.114405

Paldino, G. M., Lebichot, B., Le Borgne, Y.-A., Siblini, W., Oblé, F., Boracchi, G., & Bontempi, G. (2024). The role of diversity and ensemble learning in credit card fraud detection. *Advances in Data Analysis and Classification*, 18(1), 193-217. doi:10.1007/s11634-022-00515-5

Jansen, M. (2024). Information criteria for structured parameter selection in high dimensional tree and graph models. *Digital signal processing*, 148, 104437.

Terrucha, I., Domingos, E. F., Santos, F. C., Simoens, P., & Lenaerts, T. (2024). The art of compensation: How hybrid teams solve collective-risk dilemmas. *PloS one*, 19(2 February), e0297213. doi:10.1371/journal.pone.0297213

Lenaerts, T., Saponara, M., Pacheco, J. J., & Santos, F. C. (2024). Evolution of a theory of mind. *iScience*, 27(2), 108862. doi:10.1016/j.isci.2024.108862

Aloupis, G., Iacono, J., Langerman, S., "Ozkan, "., & Wuhler, S. S. (2024). The Complexity of Order Type Isomorphism. *Discrete & computational geometry*, 72(2), 483-502. doi:10.1007/S00454-024-00687-1

Dujmovi#, V. V., Joret, G., Micek, P., Morin, P. P., & Wood, D. (2024). Bounded-Degree Planar Graphs Do Not Have Bounded-Degree Product Structure. *The electronic journal of combinatorics*, 31(2), P2.51. doi:10.37236/11712

Attafi, O. A., Clementel, D., Kyritsis, K., Capriotti, E., Farrell, G., Fragkouli, S.-C., Castro, L. J., Hatos, A., Lenaerts, T., Mazurenko, S., Mozaffari, S., Pradelli, F., Ruch, P., Savojardo, C., Turina, M. P., Zambelli, F., Piovesan, D., Monzon, A. M., Psomopoulos, F. F., & Tosatto, S. S. (2024). DOME Registry: implementing community-wide recommendations for reporting supervised machine learning in biology. *GigaScience*, 13, giae094, 8. doi:10.1093/gigascience/giae094

Stefanija, A. P., Buelens, B., Goesaert, E., Lenaerts, T., Pierson, J. R., & Van den Bussche, J. (2024). Toward a Solid Acceptance of the Decentralized Web of Personal Data: Societal and Technological Convergence. *Communications of the ACM*, 67(1), 43-46. doi:10.1145/3624555

Juchnewitsch, A. G., Pomm, K., Dutta, A., Tamp, E., Valkna, A., Lillepea, K., Mahyari, E., Tjagur, S., Belova, G., Kübarsepp, V., Castillo-Madeen, H., Riera-Escamilla, A., Põlluas, L., Nagirnaja, L., Poolamets, O., Vihljajev, V., Sütt, M., Versbraegen, N., Papadimitriou, S., McLachlan, R. I., Jarvi, K. A., Schlegel, P. P., Tennisberg, S., Korrovits, P., Vigh-Conrad,

K., O'Bryan, M. M., Aston, K. I., Lenaerts, T., Conrad, D. D., Kasak, L., Punab, M., & Laan, M. (2024). Undiagnosed RASopathies in infertile men. *Frontiers in endocrinology*, 15, 1312357. doi:10.3389/fendo.2024.1312357

Lebichot, B., Sibli, W., Paldino, G. M., Le Borgne, Y.-A., Oblé, F., & Bontempi, G. (2024). Assessment of catastrophic forgetting in continual credit card fraud detection. *Expert systems with applications*, 249, 123445. doi:10.1016/j.eswa.2024.123445

Filiot, E., & Winter, S. (2024). Synthesizing Computable Functions from Rational Specifications Over Infinite Words. *International journal of foundations of computer science*, 35(1AND2), 179-214. doi:10.1142/S012905412348009X