

# Vincent Pilaud ■ Publications

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## Journals

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- [J1] V. Pilaud & F. Santos. *Multitriangulations as complexes of star-polygons*. Discrete & Computational Geometry, vol. 41(2), pp. 284 – 317, 2009.
- [J2] J. Ferté, V. Pilaud & M. Pocchiola. *On the number of simple arrangements of five double pseudolines*. Discrete & Computational Geometry, vol. 45(2), pp. 279 – 302, 2011.
- [J3] B. Matschke, J. Pfeifle & V. Pilaud. *Prodsimplicial neighborly polytopes*. Discrete & Computational Geometry, vol. 46(1), pp. 100 – 131, 2011.
- [J4] J. Pfeifle, V. Pilaud & F. Santos. *Polytopality and Cartesian products of graphs*. Israel Journal of Mathematics, vol. 192(1), pp. 121 – 141, 2012.
- [J5] V. Pilaud & M. Pocchiola. *Multitriangulations, pseudotriangulations and primitive sorting networks*. Discrete & Computational Geometry, vol. 48(1), pp. 142 – 191, 2012.
- [J6] V. Pilaud & F. Santos. *The brick polytope of a sorting network*. European Journal of Combinatorics, vol. 33(4), pp. 632 – 662, 2012.
- [J7] M. Jiang, V. Pilaud & P. Tejada. *On a dispersion problem in grid labeling*. SIAM Journal on Discrete Mathematics, vol. 26(1), pp. 39 – 51, 2012.
- [J8] V. Pilaud & C. Stump. *EL-labelings and canonical spanning trees for subword complexes*. Discrete Geometry and Optimization, Fields Institute Communications Series, pp. 213 – 248, 2013.
- [J9] N. Hähnle, S. Klee & V. Pilaud. *Obstructions to weak decomposability for simplicial polytopes*. Proceedings of the American Mathematical Society, vol. 142(9), pp. 3249 – 3257, 2014.
- [J10] J. Bokowski & V. Pilaud. *Enumerating topological  $(n_k)$ -configurations*. Computational Geometry : Theory and Applications, vol. 47(2), pp. 175 – 186, 2014.
- [J11] V. Pilaud & J. Rué. *Analytic combinatorics of chord and hyperchord diagrams with  $k$  crossings*. Advances in Applied Mathematics, vol. 57, pp. 60 – 100, 2014.
- [J12] V. Pilaud & C. Stump. *Vertex barycenter of generalized associahedra*. Proceedings of the American Mathematical Society, vol. 143(6), pp. 2623 – 2636, 2015.
- [J13] C. Ceballos & V. Pilaud. *Denominator vectors and compatibility degrees in cluster algebras of finite type*. Transactions of the American Mathematical Society, vol. 367, pp. 1421 – 1439, 2015.
- [J14] V. Pilaud & C. Stump. *Brick polytopes of spherical subword complexes and generalized associahedra*. Advances in Mathematics, vol. 276, pp. 1 – 61, 2015.
- [J15] J. Bokowski & V. Pilaud. *On topological and geometric  $(19_4)$  configurations*. European Journal of Combinatorics, vol. 50, pp. 4 – 17, 2015.
- [J16] T. Manneville & V. Pilaud. *Graph properties of graph associahedra*. Séminaire Lotharingien de Combinatoire, B73d, 31 pp., 2015.
- [J17] C. Ceballos & V. Pilaud. *Cluster algebras of type  $D$ : pseudotriangulations approach*. Electronic Journal of Combinatorics, vol. 22(4), #P4.44, 27 pp., 2015.
- [J18] C. Ceballos & V. Pilaud. *The diameter of type  $D$  associahedra and the non-leaving-face property*. European Journal of Combinatorics, vol. 51, pp. 109 – 124, 2016.
- [J19] J. Bokowski & V. Pilaud. *Quasi-configurations: building blocks for point-line configurations*. ARS Mathematica Contemporanea, vol. 10(1), pp. 99 – 112, 2016.
- [J20] T. Manneville & V. Pilaud. *Compatibility fans for graphical nested complexes*. Journal of Combinatorial Theory, Series A, vol. 150C, pp. 36 – 107, 2017.

- [J21] G. Chatel & V. Pilaud. *Cambrian Hopf Algebras*. Advances in Mathematics, vol. 311, pp. 598 – 633, 2017.
- [J22] V. Pilaud. *Which nestohedra are removalhedra?* Revista Colombiana de Matemáticas, vol. 51, pp. 21 – 42, 2017.
- [J23] A. Dermenjian, C. Hohlweg & V. Pilaud. *The facial weak order and its lattice quotients*. Transactions of the American Mathematical Society, vol. 370(2), pp. 1469 – 1507, 2018.
- [J24] V. Pilaud. *Brick polytopes, lattice quotients, and Hopf algebras*. Journal of Combinatorial Theory, Series A, vol. 155, pp. 418 – 457, 2018.
- [J25] C. Hohlweg, V. Pilaud & S. Stella. *Polytopal realizations of finite type  $\mathfrak{g}$ -vector fans*. Advances in Mathematics, vol. 328, pp. 713 – 749, 2018.
- [J26] V. Pilaud & V. Pons. *Permutrees*. Algebraic Combinatorics, vol. 1(2), pp. 173 – 224, 2018.
- [J27] V. Pilaud, P.-G. Plamondon & S. Stella. *A  $\tau$ -tilting approach to dissections of polygons*. Symmetry, Integrability & Geometry : Methods & Applications, vol. 14, Paper 045, 8 pp., 2018.
- [J28] C. Lange & V. Pilaud. *Associahedra via spines*. Combinatorica, vol. 38(2), pp. 443 – 486, 2018.
- [J29] V. Pilaud. *Hopf algebras on decorated noncrossing arc diagrams*. Journal of Combinatorial Theory, Series A, vol. 161, pp. 486 – 507, 2019.
- [J30] T. Manneville & V. Pilaud. *Geometric realizations of the accordion complex of a dissection*. Discrete & Computational Geometry, vol. 61(3), pp. 507 – 540, 2019.
- [J31] G. Chatel, V. Pilaud & V. Pons. *The weak order on integer posets*. Algebraic Combinatorics, vol. 2(1), pp. 1 – 48, 2019.
- [J32] V. Pilaud & F. Santos. *Quotientopes*. Bulletin of the London Mathematical Society, vol. 51(3), pp. 406 – 420, 2019.
- [J33] Y. Palu, V. Pilaud & P.-G. Plamondon. *Non-kissing and non-crossing complexes for locally gentle algebras*. Journal of Combinatorial Algebra, vol. 3(4), pp. 401 – 438, 2019.
- [J34] V. Pilaud. *Cambrian triangulations and their tropical realizations*. European Journal of Combinatorics, vol. 83, 19 pp., 2020.
- [J35] V. Pilaud & V. Pons. *The Hopf algebra of integer binary relations*. IRMA Lectures in Mathematics and Theoretical Physics (Algebraic Combinatorics, Resurgence, Moulds and Applications, CARMA), vol. 31, pp. 299 – 344, 2020.
- [J36] J. Gay & V. Pilaud. *The weak order on Weyl posets*. Canadian Journal of Mathematics, vol. 72(4), 867–899, 2020.
- [J37] D. Albertin, V. Pilaud & J. Ritter. *Removahedral congruences versus permutree congruences*. Electronic Journal of Combinatorics, vol. 28(4), #P4.8, pp. 38, 2021.
- [J38] Y. Palu, V. Pilaud & P.-G. Plamondon. *Non-kissing complexes and tau-tilting for gentle algebras*. Memoirs of the American Mathematical Society, vol. 274, num. 1343, 2021.
- [J39] A. Dermenjian, C. Hohlweg, T. McConville & V. Pilaud. *The facial weak order on hyperplane arrangements*. Discrete & Computational Geometry, vol. 67, pp. 166 – 202, 2022.
- [J40] N. Bergeron, C. Ceballos & V. Pilaud. *Hopf dreams and diagonal harmonics*. Journal of the London Mathematical Society, pp. 1 – 56 (online first), 2022.
- [J41] A. Padrol, V. Pilaud & J. Ritter. *Shard polytopes*. Accepted in International Mathematical Research Notices, 2022.
- [J42] D. Albertin & V. Pilaud. *The canonical complex of the weak order*. Accepted in Order, 2022.
- [J43] V. Pilaud, V. Pons & D. Tamayo Jiménez. *Permutree sorting*. Accepted in Algebraic Combinatorics, 2022.
- [J44] A. Padrol, V. Pilaud & G. Poullot. *Deformation cones of graph associahedra and nestohedra*. Accepted in European Journal of Combinatorics, 2022.

## Preprints

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- [P1] V. Pilaud. *Signed tree associahedra*.  
Preprint, 50 pp., [arXiv:1309.5222](#), 2013.
- [P2] F. Hivert & V. Pilaud. *Signaletic operads*.  
Preprint, 97 pp., [arXiv:1906.02228](#), 2019.
- [P3] A. Padrol, Y. Palu, V. Pilaud & P.-G. Plamondon. *Associahedra for finite type cluster algebras and minimal relations between  $\mathbf{g}$ -vectors*.  
Preprint, 64 pp., [arXiv:1906.06861](#), 2019.
- [P4] A. Padrol, V. Pilaud & G. Poullot. *Deformed graphical zonotopes*.  
Preprint, 11 pp., [arXiv:2111.12422](#), 2021.
- [P5] V. Pilaud. *Acyclic reorientation lattices and their lattice quotients*.  
Preprint, 41 pp., [arXiv:2111.12387](#), 2021.
- [P6] F. Chapoton & V. Pilaud. *Shuffles of deformed permutahedra, multiplihedra, constrainahedra and biassociahedra*.  
Prépublication, 49 pp., [arXiv:2201.06896](#), 2022.
- [P7] V. Pilaud. *Pebble trees*.  
Prépublication, 21 pp., [arXiv:2205.06686](#), 2022.

## International conferences

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FPSAC = *International Conference on Formal Power Series and Algebraic Combinatorics*

EuroComb = *European Conference on Combinatorics, Graph Theory and Applications*

AofA = *International Conference on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms*

CCCG = *Canadian Conference on Computational Geometry*

EuroCG = *European Workshop on Computational Geometry*

- [C1] V. Pilaud & F. Santos. *Multitriangulations as complexes of star-polygons*.  
FPSAC'08 (poster), DMTCS Proc., pp. 319 – 330, 2008. cf. [J1]
- [C2] V. Pilaud & M. Pocchiola. *Multipseudotriangulations*.  
EuroCG'09, pp. 227 – 230, 2009. cf. [J5]
- [C3] J. Bokowski & V. Pilaud. *On symmetric realizations of the simplicial complex of 3-crossing-free sets of diagonals of the octagon*.  
CCCG'09, 4 pp., 2009.
- [C4] M. Jiang, V. Pilaud & P. Tejada. *On a dispersion problem in grid labeling*.  
CCCG'10, 8 pp., 2010. cf. [J7]
- [C5] J. Bokowski & V. Pilaud. *Enumerating topological  $(n_k)$ -configurations*.  
CCCG'11, 6 pp., 2011. cf. [J10]
- [C6] V. Pilaud & F. Santos. *The brick polytope of a sorting network*.  
FPSAC'11 (talk), DMTCS Proc., pp. 777 – 788, 2011. cf. [J6]
- [C7] V. Pilaud. *The greedy flip tree of a subword complex*.  
*8ème Conf. de Génération Aléatoire de Structures Combinatoires*, 11 pp., 2012. cf. [J8]
- [C8] V. Pilaud & C. Stump. *Generalized associahedra via brick polytopes*.  
FPSAC'12 (talk), DMTCS Proc., pp. 73 – 84, 2012. cf. [J14]
- [C9] C. Ceballos & V. Pilaud. *Denominator vectors and compatibility degrees in cluster algebras of finite type*.  
FPSAC'13 (talk), DMTCS Proc., pp. 85 – 96, 2013. cf. [J13]
- [C10] V. Pilaud & C. Stump. *EL-labelings and canonical spanning trees for subword complexes*.  
FPSAC'13 (poster), DMTCS Proc., pp. 611 – 622, 2013. cf. [J8]
- [C11] V. Pilaud. *Signed tree associahedra*.  
FPSAC'14 (poster), DMTCS Proc., pp. 309 – 320, 2014. cf. [P1]
- [C12] V. Pilaud & J. Rué. *Analytic combinatorics of chord and hyperchord diagrams with  $k$  crossings*.  
AofA'14, DMTCS Proc., 339 – 350, 2014. cf. [J11]

- [C13] G. Chatel, C. Lange & V. Pilaud. *Cambrian trees*. Oberwolfach report, No. 5, pp. 327 – 328, 2015. cf. [J21 & J28]
- [C14] G. Chatel & V. Pilaud. *The Cambrian Hopf Algebra*. FPSAC'15 (talk), DMTCS Proc., pp. 61 – 72, 2015. cf. [J21]
- [C15] C. Ceballos, T. Manneville, V. Pilaud & L. Pournin. *Diameters and geodesic properties of generalizations of the associahedron*. FPSAC'15 (poster), DMTCS Proc., pp. 345 – 356, 2015. cf. [J16 & J18]
- [C16] V. Pilaud & M. Pocchiola. *Multitriangulations, pseudotriangulations and friezes*. Oberwolfach report, No. 48, pp. 2879 – 2882, 2015. cf. [J5]
- [C17] A. Dermenjian, C. Hohlweg & V. Pilaud. *The facial weak order in finite Coxeter groups*. FPSAC'16 (talk), DMTCS Proc., pp. 359 – 370, 2016. cf. [J23]
- [C18] T. Manneville & V. Pilaud. *Compatibility fans realizing graphical nested complexes*. FPSAC'16 (talk), DMTCS Proc., pp. 827 – 838, 2016. cf. [J20]
- [C19] V. Pilaud. *Brick polytopes, lattices and Hopf algebras*. FPSAC'16 (poster), DMTCS Proc., pp. 1003 – 1014, 2016. cf. [J24]
- [C20] A.-H. Bateni, T. Manneville & V. Pilaud. *On quadrangulations and Stokes complexes*. EuroComb'17, ENDM, Vol. 61, pp. 107 – 113, 2017. cf. [J30]
- [C21] V. Pilaud & V. Pons. *Permutrees*. EuroComb'17, ENDM, Vol. 61, pp. 987 – 993, 2017. cf. [J26]
- [C22] C. Hohlweg, V. Pilaud & S. Stella. *Universal associahedra*. FPSAC'18 (talk), SLC Proc. 80B #15, 12 pp., 2018. cf. [J25]
- [C23] Y. Palu, V. Pilaud & P.-G. Plamondon. *Non-kissing complexes for gentle algebras*. FPSAC'18 (talk), SLC Proc. 80B #39, 12 pp., 2018. cf. [J38]
- [C24] V. Pilaud & V. Pons. *Algebraic structures on integer posets*. FPSAC'18 (poster), SLC Proc. 80B #61, 12 pp., 2018. cf. [J31 & J35]
- [C25] V. Pilaud. *Polytopal realizations and Hopf algebra structures for lattice quotients of the weak order*. FPSAC'19 (poster), SLC Proc., 82B #3, 12 pp., 2019. cf. [J32 & J29]
- [C26] Y. Palu, V. Pilaud & P.-G. Plamondon. *Non-kissing versus non-crossing*. FPSAC'19 (poster), SLC Proc., 82B #12, 12 pp., 2019. cf. [J33]
- [C27] N. Bergeron, C. Ceballos & V. Pilaud. *Hopf dreams (extended abstract)*. FPSAC'19 (talk), SLC Proc., 82B #19, 12 pp., 2019. cf. [J40]
- [C28] V. Pilaud & F. Hivert. *Signaletic operads*. FPSAC'20 (poster), SLC Proc., 84B #6, 12 pp., 2020. cf. [P2]
- [C29] A. Padrol, Y. Palu, V. Pilaud & P.-G. Plamondon. *On type cones of  $\mathfrak{g}$ -vector fans*. FPSAC'20 (talk), SLC Proc., 84B #13, 12 pp., 2020. cf. [P3]
- [C30] A. Dermenjian, C. Hohlweg, T. McConville & V. Pilaud. *The facial weak order on hyperplane arrangements*. FPSAC'20 (poster), SLC Proc., 84B #14, 11 pp., 2020. cf. [J39]
- [C31] D. Albertin, V. Pilaud & J. Ritter. *Type cones of permutree fans*. FPSAC'21 (talk), SLC Proc., 85B #10, 12 pp., 2021. cf. [J37]
- [C32] A. Padrol, V. Pilaud & J. Ritter. *Shard polytopes*. FPSAC'21 (talk), SLC Proc., 85B #11, 12 pp., 2021. cf. [J41]
- [C33] V. Pilaud, V. Pons & D. Tamayo Jiménez. *Permutree sorting*. FPSAC'21 (poster), SLC Proc., 85B #31, 12 pp., 2021. cf. [J43]
- [C34] D. Albertin & V. Pilaud. *The canonical complex of the weak order*. FPSAC'22 (talk), 12 pp., 2022. cf. [J42]
- [C35] V. Pilaud. *Acyclic reorientation lattices and their lattice quotients*. FPSAC'22 (poster), 12 pp., 2022. cf. [P5]
- [C36] A. Padrol, V. Pilaud, & G. Poullot. *Deformation cones of hypergraphical polytopes*. FPSAC'22 (poster), 12 pp., 2022. cf. [J44 & P4]