Vincent Pilaud ■ Publications

All my publications are available on my webpage .

Journals

[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 removahedra?*
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 $\mathbf{g}$-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 τ-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] Y. Palu, V. Pilaud & P.-G. Plamondon. *Non-kissing complexes and tau-tilting for gentle algebras.*
Accepted in Memoirs of the American Mathematical Society, 2018.

[J33] V. Pilaud & V. Pons. *The Hopf algebra of integer binary relations.*
Accepted in CARMA (Algebraic Combinatorics, Resurgence, Moulds and Applications), 2018.

[J34] V. Pilaud & F. Santos. *Quotientopes.*
Accepted in Bulletin of the London Mathematical Society, 2019.

[J35] J. Gay & V. Pilaud. *The weak order on Weyl posets.*
Accepted in Canadian Journal of Mathematics, 2019.

International conferences

FPSAC = International Conference on Formal Power Series and Algebraic Combinatorics
AofA = Intern. Conf. on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms
EuroComb = European Conference on Combinatorics, Graph Theory and Applications
CCCG = Canadian Conference on Computational Geometry
EuroCG = European Workshop on Computational Geometry

[Ci1] V. Pilaud & F. Santos. *Multitriangulations as complexes of star-polygons.*
FPSAC'08 (poster), DMTCS Proc., pp. 319 – 330, 2008.   cf. [J1]

[Ci2] V. Pilaud & M. Pocchiola. *Multipseudotriangulations.*
EuroCG'09, pp. 227 – 230, 2009.   cf. [J5]

[Ci3] 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.

[Ci4] M. Jiang, V. Pilaud & P. Tejada. *On a dispersion problem in grid labeling.*
CCCG'10, 8 pp., 2010.   cf. [J7]

[Ci5] J. Bokowski & V. Pilaud. *Enumerating topological (n_k)-configurations.*
CCCG'11, 6 pp., 2011.   cf. [J10]

[Ci6] V. Pilaud & F. Santos. *The brick polytope of a sorting network.*
FPSAC'11, DMTCS Proc., pp. 777 – 788, 2011.   cf. [J6]

[Ci7] V. Pilaud. *The greedy flip tree of a subword complex.*
8ème Conf. de Génération Aléatoire de Structures Combinatoires, 11 pp., 2012.   cf. [J8]

[Ci8] V. Pilaud & C. Stump. *Generalized associahedra via brick polytopes.*
FPSAC'12, DMTCS Proc., pp. 73 – 84, 2012.   cf. [J14]

[Ci9] C. Ceballos & V. Pilaud. *Denominator vectors and compatibility degrees in cluster algebras of finite type.*
FPSAC'13, DMTCS Proc., pp. 85 – 96, 2013.   cf. [J13]

[Ci10] V. Pilaud & C. Stump. *EL-labelings and canonical spanning trees for subword complexes.*
FPSAC'13 (poster), DMTCS Proc., pp. 611 – 622, 2013.   cf. [J8]

[Ci11] V. Pilaud. *Signed tree associahedra.*
FPSAC'14 (poster), DMTCS Proc., pp. 309 – 320, 2014.   cf. [P1]

[Ci12] V. Pilaud & J. Rué. *Analytic combinatorics of chord and hyperchord diagrams with k crossings.*
AofA'14, DMTCS Proc., 339 – 350, 2014.   cf. [J11]

[Ci13] G. Chatel, C. Lange & V. Pilaud. *Cambrian trees.*
Oberwolfach report, No. 5, pp. 327 – 328, 2015.   cf. [J21 & J28]

[Ci14] G. Chatel & V. Pilaud. *The Cambrian Hopf Algebra.*
FPSAC'15, DMTCS Proc., pp. 61 – 72, 2015.   cf. [J21]

[Ci15] 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]

[Ci16] V. Pilaud & M. Pocchiola. *Multitriangulations, pseudotriangulations and friezes.*
Oberwolfach report, No. 48, pp. 2879 – 2882, 2015.   cf. [J5]

[Ci17] A. Dermenjian, C. Hohlweg & V. Pilaud. *The facial weak order in finite Coxeter groups.*
FPSAC'16, DMTCS Proc., pp. 359 – 370, 2016.   cf. [J23]

[Ci18] T. Manneville & V. Pilaud. *Compatibility fans realizing graphical nested complexes.*
FPSAC'16, DMTCS Proc., pp. 827 – 838, 2016.   cf. [J20]

[Ci19] V. Pilaud. *Brick polytopes, lattices and Hopf algebras.*
FPSAC'16 (poster), DMTCS Proc., pp. 1003 – 1014, 2016.   cf. [J24]

[Ci20] A.-H. Bateni, T. Manneville & V. Pilaud. *On quadrangulations and Stokes complexes.*
EuroComb'17, ENDM, Vol. 61, pp. 107 – 113, 2017.   cf. [J30]

[Ci21] V. Pilaud & V. Pons. *Permutrees.*
EuroComb'17, ENDM, Vol. 61, pp. 987 – 993, 2017.   cf. [J26]

[Ci22] C. Hohlweg, V. Pilaud & S. Stella. *Universal associahedra.*
FPSAC'18, SLC Proc. 80B #15, 12 pp., 2018.   cf. [J25]

[Ci23] Y. Palu, V. Pilaud & P.-G. Plamondon. *Non-kissing complexes for gentle algebras.*
FPSAC'18, SLC Proc. 80B #39, 12 pp., 2018.   cf. [J32]

[Ci24] V. Pilaud & V. Pons. *Algebraic structures on integer posets.*
FPSAC'18 (poster), SLC Proc. 80B #61, 12 pp., 2018.   cf. [J31 & J33]

[Ci25] N. Bergeron, C. Ceballos & V. Pilaud. *Hopf dreams (extended abstract).*
FPSAC'19, SLC Proc., 12 pp., 2019.   cf. [P2]

[Ci26] Y. Palu, V. Pilaud & P.-G. Plamondon. *Non-kissing versus non-crossing.*
FPSAC'19 (poster), SLC Proc., 12 pp., 2019.   cf. [P3]

[Ci27] V. Pilaud. *Polytopal realizations and Hopf algebra structures for lattice quotients of the weak order.*
FPSAC'19 (poster), SLC Proc., 12 pp., 2019.   cf. [J34 & J29]

National conferences

[C1] V. Pilaud & F. Santos. *Multitriangulations as complexes of star-polygons.*
VI Jornadas de Matemática Discreta y Algorítmica, pp. 501 – 508, 2008.   cf. [J1]

[C2] J. Ferté, V. Pilaud & M. Pocchiola. *On the number of simple arrangements of five double pseudolines.*
18th Fall Workshop on Computational Geometry, 2 pp., 2008.   cf. [J2]

[C3] J. Ferté, V. Pilaud & M. Pocchiola. *On the number of simple arrangements of five double pseudolines.*
XV Midsummer Combinatorial Workshop, 2009.   cf. [J2]

[C4] J. Bokowski & V. Pilaud. *On symmetric realizations of the simplicial complex of 3-crossing-free sets of diagonals of the octagon.*
XIII Encuentros de Geometría Computacional, 8 pp., 2009.   cf. [Ci3]

[C5] J. Pfeifle, V. Pilaud & F. Santos. *Polytopality of Cartesian products of graphs.*
VII Jornadas de Matemática Discreta y Algorítmica, pp. 529 – 540, 2010.   cf. [J4]

[C6] V. Pilaud & F. Santos. *A generalization of Loday's associahedron.*
VII Jornadas de Matemática Discreta y Algorítmica, pp. 541 – 552, 2010. (Poster)   cf. [J6]

Preprints

[P1] V. Pilaud. *Signed tree associahedra.*
Prépublication, 50 pp., arXiv:1309.5222, 2013.

[P2] N. Bergeron, C. Ceballos & V. Pilaud. *Hopf dreams.*
Prépublication 40 pp., arXiv:1807.03044, 2018.

[P3] Y. Palu, V. Pilaud & P.-G. Plamondon. *Non-kissing and non-crossing complexes for locally gentle algebras.*
Prépublication, 27 pp., arXiv:1807.04730, 2018.

[P4] V. Pilaud. *Cambrian triangulations and their tropical realizations.*
Prépublication, 16 pp.,
arXiv:1809.00719, 2018.