

# Vincent Pilaud ■ Publications

All my publications are available on my webpage <http://www.lix.polytechnique.fr/~pilaud/>.

## 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, Springer*, 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] C. Lange & V. Pilaud. *Associahedra via spines*. Accepted in *Combinatorica*, 24 pp., 2015.

## International conferences

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- [Ci1] V. Pilaud & F. Santos. *Multitriangulations as complexes of star-polygons*. FPSAC'08 (poster). *20th Intern. Conf. Formal Power Series and Algebraic Combinatorics*, DMTCS Proc., pp. 319 – 330, 2008. cf. [J1]
- [Ci2] V. Pilaud & M. Pocchiola. *Multipseudotriangulations*. EuroCG'09. *25th European Workshop on Computational Geometry*, 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. *21st Canad. Conf. on Computational Geometry*, 4 pp., 2009.
- [Ci4] M. Jiang, V. Pilaud & P. Tejada. *On a dispersion problem in grid labeling*. CCCG'10. *22st Canad. Conf. on Computational Geometry*, 8 pp., 2010. cf. [J7]
- [Ci5] J. Bokowski & V. Pilaud. *Enumerating topological  $(n_k)$ -configurations*. CCCG'11. *23rd Canad. Conf. on Computational Geometry*, 6 pp., 2011. cf. [J10]
- [Ci6] V. Pilaud & F. Santos. *The brick polytope of a sorting network*. FPSAC'11. *23th Intern. Conf. Formal Power Series and Algebraic Combinatorics*, DMTCS Proc., pp. 777 – 788, 2011. cf. [J6]
- [Ci7] V. Pilaud & C. Stump. *Generalized associahedra via brick polytopes*. FPSAC'12. *24th Intern. Conf. Formal Power Series and Algebraic Combinatorics*, DMTCS Proc., pp. 73 – 84, 2012. cf. [J14]
- [Ci8] C. Ceballos & V. Pilaud. *Denominator vectors and compatibility degrees in cluster algebras of finite type*. FPSAC'13. *25th Intern. Conf. Formal Power Series and Algebraic Combinatorics*, DMTCS Proc., pp. 85 – 96, 2013. cf. [J13]
- [Ci9] V. Pilaud & C. Stump. *EL-labelings and canonical spanning trees for subword complexes*. FPSAC'13 (poster). *25th Intern. Conf. Formal Power Series and Algebraic Combinatorics*, DMTCS Proc., pp. 611 – 622, 2013. cf. [J8]
- [Ci10] V. Pilaud. *Signed tree associahedra*. FPSAC'14 (poster). *26th Intern. Conf. Formal Power Series and Algebraic Combinatorics*, DMTCS Proc., pp. 309 – 320, 2014. cf. [P1]
- [Ci11] V. Pilaud & J. Rué. *Analytic combinatorics of chord and hyperchord diagrams with  $k$  crossings*. AofA'14. *25th International Conference on Probabilistic, Combinatorial and Asymptotic Methods for the Analysis of Algorithms*, DMTCS Proc., 339 – 350, 2014. cf. [J11]
- [Ci12] G. Chatel, C. Lange & V. Pilaud. *Cambrian trees*. *Oberwolfach report*, pp. 43 – 44, 2015. cf. [P3, J20]
- [Ci13] G. Chatel & V. Pilaud. *The Cambrian Hopf Algebra*. FPSAC'15. *27th Intern. Conf. Formal Power Series and Algebraic Combinatorics*, DMTCS Proc., pp. 61 – 72, 2015. cf. [P3]
- [Ci14] C. Ceballos, T. Manneville, V. Pilaud & L. Pournin. *Diameters and geodesic properties of generalizations of the associahedron*. FPSAC'15 (poster). *27th Intern. Conf. Formal Power Series and Algebraic Combinatorics*, DMTCS Proc., pp. 345 – 356, 2015. cf. [J18 & J16]
- [Ci15] V. Pilaud & M. Pocchiola. *Multitriangulations, pseudotriangulations and friezes*. *Oberwolfach report*, 3 pp., 2015. cf. [J5]
- [Ci16] A. Dermenjian, C. Hohlweg & V. Pilaud. *The facial weak order in finite Coxeter groups*. FPSAC'16. *28th Intern. Conf. Formal Power Series and Algebraic Combinatorics*, DMTCS Proc., pp. 359 – 370, 2016. cf. [P6]
- [Ci17] T. Manneville & V. Pilaud. *Compatibility fans realizing graphical nested complexes*. FPSAC'16. *28th Intern. Conf. Formal Power Series and Algebraic Combinatorics*, DMTCS Proc., pp. 827 – 838, 2016. cf. [P4]
- [Ci18] V. Pilaud. *Brick polytopes, lattices and Hopf algebras*. FPSAC'16 (poster). *28th Intern. Conf. Formal Power Series and Algebraic Combinatorics*, DMTCS Proc., pp. 1003 – 1014, 2016. cf. [P5]

## National conferences

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- [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* (poster), pp. 541 – 552, 2010. 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]

## Preprints

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- [P1] V. Pilaud. *Signed tree associahedra*. Preprint, 50 pp., [arXiv:1309.5222](https://arxiv.org/abs/1309.5222), 2013.
- [P2] V. Pilaud. *Which nestohedra are removahedra?* Preprint, 13 pp., [arXiv:1407.2464](https://arxiv.org/abs/1407.2464), 2014.
- [P3] G. Chatel & V. Pilaud. *Cambrian Hopf Algebras*. Preprint, 60 pp., [arXiv:1411.3704](https://arxiv.org/abs/1411.3704), 2014.
- [P4] T. Manneville & V. Pilaud. *Compatibility fans for graphical nested complexes*. Preprint, 51 pp., [arXiv:1501.07152](https://arxiv.org/abs/1501.07152), 2015.
- [P5] V. Pilaud. *Brick polytopes, lattice quotients, and Hopf algebras*. Preprint, 59 pp., [arXiv:1505.07665](https://arxiv.org/abs/1505.07665), 2015.
- [P6] A. Dermenjian, C. Hohlweg & V. Pilaud. *The facial weak order and its lattice quotients*. Preprint, 40 pp., [arXiv:1602.03158](https://arxiv.org/abs/1602.03158), 2016.
- [P7] V. Pilaud & V. Pons. *Permutrees*. Preprint, 43 pp., [arXiv:1606.09643](https://arxiv.org/abs/1606.09643), 2016.