

## PUBLICATION LIST OF EMANUELE DELUCCHI

### Published research papers

- (1) *Products of arithmetic matroids and quasipolynomial invariants of CW-complexes*  
(with Luca Moci).  
Journal of Combinatorial Theory ser. A, Vol. 157 (2018), pp. 28–40.
- (2) *Group actions on semimatroids*  
(with Sonja Riedel).  
Advances in Applied Mathematics 95 (2018), pp. 199–270.
- (3) *The integer cohomology algebra of toric arrangements*  
(with Filippo Callegaro).  
Advances in Mathematics 313 (2017), pp. 746–802.
- (4) *An equivariant discrete model for complexified arrangements*  
(with Michael J. Falk).  
To appear in Proc. Amer. Math. Soc., 12 pp.
- (5) *Cryptomorphisms for rigidity matroids*  
(with Tim Lindemann).  
*Configurations Spaces - Geometry, Topology and Representation Theory*,  
Springer INdAM series (2016), pp. 195–211.
- (6) *Bergman complexes of Lattice Path Matroids*  
(with Martin Dlugosch).  
SIAM journal of Discrete Mathematics, Vol. 29 n. 4 (2015), pp. 1916–1930.
- (7) *Minimality of toric arrangements*  
(with Giacomo d’Antonio).  
Journal of the European Mathematical Society, Vol. 7 n. 3 (2015), pp. 483–521.
- (8) *Foundations for a theory of complex matroids*  
(with Laura Anderson).  
Discrete and Computational Geometry, Vol. 48 (2012), no. 4, pp. 807–846.
- (9) *A Salvetti complex for toric arrangements and its fundamental group*  
(with Giacomo d’Antonio).  
International Mathematics Research Notices, Vol. 2011, article ID rnn161, 32 pp.
- (10) *f-vectors of subdivisions of simplicial complexes*  
(with Lucas Sabalka and Aaron Pixton).  
Discrete Mathematics, Vol. 312 (2011), no. 2, pp. 248–257.
- (11) *Modular elimination in matroids and oriented matroids.*  
European journal of Combinatorics, Vol. 32 (2011), no. 3, pp. 339–343.
- (12) *Combinatorial polar orderings and recursively orderable arrangements*  
(with Simona Settepanella).  
Advances in Applied Mathematics Vol. 44, no. 2, (2010), pp. 124–144.
- (13) *Combinatorics of covers of complexified arrangements.*  
In “Arrangements, Local systems and singularities”.  
Progress in Mathematics Vol. 283, Birkhäuser (2009), pp. 1–38.

- (14) *Shelling-type orderings of regular CW-complexes and acyclic matchings for the Salvetti complex.*  
International Mathematics Research Notices, Vol. 2008, no. 6, article ID rnm167, 39 pp.
- (15) *Nested set complexes of Dowling lattices and complexes of Dowling trees.*  
Journal of Algebraic Combinatorics, Vol. 26 (2007), no. 4, pp. 477–494.
- (16) *Simplicial shellable spheres via combinatorial blowups*  
(with Sonja L. Čukić).  
Proc. Amer. Math. Soc. Vol. 135 (2007), no. 8, pp. 2403–2414.

### Research preprints

- (17) *Impossibility results for stability of phylogenetic consensus methods*  
(with Linard Hoessly and Giovanni Paolini).  
ArXiv e-prints, October 2018, 15 pp.
- (18) *Orlik-Solomon-type presentations for the cohomology algebra of toric arrangements*  
(with Michele d’Adderio, Filippo Callegaro, Luca Migliorini and Roberto Pagaria).  
ArXiv e-prints, June 2018, 32 pp.
- (19) *Invariants of face rings of symmetric complexes and Stanley-Reisner rings for  $G$ -semimatroids*  
(with Alessio d’Alì).  
ArXiv e-prints, April 2018, 30 pp.
- (20) *Fundamental polytopes of metric trees via hyperplane arrangements*  
(with Linard Hoessly).  
ArXiv e-prints, December 2016, 17 pp.
- (21) *Shellability of posets of labeled partitions and arrangements defined by root systems*  
(with Noriane Girard and Giovanni Paolini).  
ArXiv e-prints, June 2017, 20 pp.
- (22) *Subspace arrangements and motives of classifying stacks of reflection groups*  
(with Ivan Martino).  
ArXiv e-prints, July 2015, 16 pp.
- (23) *Realization spaces of matroids over hyperfields*  
(with Linard Hoessly and Elia Saini).  
ArXiv e-prints, April 2015, 42 pp.

### Books

- (24) *Combinatorial methods in Topology and Algebra*  
(edited with Bruno Benedetti and Luca Moci).  
Springer-Verlag, *INdAM conference series* (2015), vii + 227 pp.
- (25) *Giochi e percorsi matematici*  
(with Giovanni Gaiffi and Ludovico Pernazza).  
Springer-Verlag, *Convergenze* (2012), xii + 199 pp.

### Theses

- (26) *Combinatorial geometries in algebra and topology.*  
Habilitationsschrift, 160 pp., Universität Bremen.
- (27) *Topology and combinatorics of arrangement covers and of nested set complexes.*  
Ph.D. thesis, advisor: Prof. Dr. Eva-Maria Feichtner, 156 pp., ETH Zurich.

- (28) *On generalizing oriented matroids to a complex setting.*  
Diploma thesis, advisor: Prof. Dr. Eva-Maria Feichtner, 48 pp., ETH Zurich.

#### Peer-reviewed conference proceedings

- (29) *Combinatorial topology of toric arrangements (with Giacomo d'Antonio).*  
Proceedings of the 25th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2013), DMTCS Proceedings, pp. 1161–1172.
- (30) *f-vectors of subdivided simplicial complexes (with Aaron Pixton and Lucas Sabalka).*  
Proceedings of the 22th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC 2010), DMTCS Proceedings, pp. 693–700.

#### Education and outreach

- (31) *Il gioco del 15: \$1000 per due blocchetti!*  
(with Giovanni Gaiffi and Ludovico Pernazza).  
Xlatangente, vol. 15, 2009.
- (32) *Numeri e simmetria: il Sudoku*  
(with Giovanni Gaiffi and Ludovico Pernazza).  
Xlatangente, vol. 13, 2009.
- (33) *Forme, trasformazioni e topologia*  
(with Giovanni Gaiffi and Ludovico Pernazza).  
Quaderni della Settimana Matematica, Università di Pisa (2008), 67 pp.
- (34) “+&c.”  
(with Maurice D. Froidcoeur).  
Bollettino dei docenti di matematica **55** (2007), Centro Didattico Cantonale TI, 15pp.

#### Miscellanea

- (35) *Book review: Matroid Theory by James Oxley.*  
Newsletter of the European Mathematical Society, June 2012.