

Curriculum Vitae

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EDUCATION AND POSITIONS

- 1999-2003 Degree in Mathematics at University of Pisa, supervisor: prof. Mario Salvetti.
- 2004-2007 PhD in Mathematics at Scuola Normale Superiore, Pisa, supervisor: prof. Mario Salvetti.
- 2007 January 2007-September 2007: Research fellowship at Department of Mathematics, University of Pisa.
- October 2007-January 2008: post-doc position “ATER” at Université de Lille I, France.
- 2008 January 2008-March 2013: non-permanent research position as “Ricercatore a tempo determinato” at Scuola Normale Superiore, Pisa.
- 2013 March 2013-March 2016: non-permanent research position founded by FIRB as “Ricercatore di tipo A” at Dipartimento di Matematica, University of Pisa.
- 2016 May 2016-April 2019: tenure track research position “Ricercatore di tipo B” at Dipartimento di Matematica, University of Pisa.
- 2019 May 2019-present: Associate Professor at Dipartimento di Matematica, University of Pisa.

FOUNDED PROJECTS

- 2012 FIRB Italian Project 2012 “Perspectives in Lie theory”, local leader for the group of the University of Pisa (national leader: Alberto de Sole, Università di Roma La Sapienza).
- 2013 Entitled for 50.000 Euro founding for the INDAM Intensive Research Period "Perspectives in Lie theory" to be held in December 2014-February 2015 at Centro di Ricerca Matematica “Ennio de Giorgi”, Pisa. The intensive period will include a workshop in Rome and a meeting in Cortona.

SCIENTIFIC COMMITTEE OF CONFERENCES

- 2015 “Perspectives in Lie Theory”, Pisa.
- 2016 “Arrangements: topology, combinatorics and stability”, Pisa.
- 2017 Winter School “Geometry, Algebra and Combinatorics of Moduli Spaces and Configurations”, Toblach.

- 2017 “Perspectives in Algebraic Topology: a day in honor of Mario Salvetti”, Pisa.
- 2017 “Arrangements and beyond: Combinatorics, geometry, topology and applications”, Pisa.
- 2020 “Winterbraids X”, Pisa.
- 2022 “Arrangements in Ticino, Geometry, topology, algebra and their applications”, Locarno.
- 2025 “Topology of Arrangements with an Eye to Applications”, Pisa.

PHD STUDENTS

- 2019 Roberto Pagaria, *Cohomology and Combinatorics of Toric Arrangements*, Scuola Normale Superiore di Pisa.

PUBLICATIONS

- [1] Filippo Callegaro. Proprietà intere della coomologia dei gruppi di Artin e della fibra di Milnor associata [Integral properties of the cohomology of Artin groups and the associated Milnor fiber]. Master’s thesis, Dipartimento di Matematica, Univ. di Pisa, 2003.
- [2] Filippo Callegaro and Mario Salvetti. Integral cohomology of the Milnor fibre of the discriminant bundle associated with a finite Coxeter group. *C. R. Math. Acad. Sci. Paris*, 339(8):573–578, 2004.
- [3] Filippo Callegaro. On the cohomology of Artin groups in local systems and the associated Milnor fiber. *J. Pure Appl. Algebra*, 197(1-3):323–332, 2005.
- [4] Filippo Callegaro. The homology of the Milnor fiber for classical braid groups. *Algebr. Geom. Topol.*, 6:1903–1923 (electronic), 2006.
- [5] Filippo Callegaro, Davide Moroni, and Mario Salvetti. Cohomology of affine Artin groups and applications. *Trans. Amer. Math. Soc.*, 360(8):4169–4188, 2008.
- [6] Filippo Callegaro, Davide Moroni, and Mario Salvetti. Cohomology of Artin groups of type $\tilde{A}_n$, B_n and applications. In *Groups, homotopy and configuration spaces*, volume 13 of *Geom. Topol. Monogr.*, pages 85–104. Geom. Topol. Publ., Coventry, 2008.
- [7] Filippo Callegaro. *Cohomology of finite and affine type Artin groups over abelian representations*, volume 13 of *Tesi. Scuola Normale Superiore di Pisa (Nuova Series) [Theses of Scuola Normale Superiore di Pisa (New Series)]*.
- [8] Filippo Callegaro, Davide Moroni, and Mario Salvetti. The $K(\pi, 1)$ problem for the affine Artin group of type $\tilde{B}_n$ and its cohomology. *J. Eur. Math. Soc. (JEMS)*, 12(1):1–22, 2010.
- [9] Filippo Callegaro and Giovanni Gaiffi. An Explicit Description of Coxeter Homology Complexes. *ISRN Geom.*, 2011(Article ID 387936):13 pages, 2011.

- [10] Filippo Callegaro and Ivan Marin. Homology computations for complex braid groups. *J. Eur. Math. Soc. (JEMS)*, 16(1):103–164, 2014.
- [11] Filippo Callegaro, Fred Cohen, and Mario Salvetti. The cohomology of the braid group B_3 and $SL_2(\mathbb{Z})$ with coefficients in a geometric representation. In *Configuration Spaces: Geometry, Combinatorics and Topology*, volume 14 of *Centro di Ricerca Matematica Ennio De Giorgi (CRM) Series*, pages 193–211. Edizioni della Normale, Pisa, 2012.
- [12] Filippo Callegaro, Fred Cohen, and Mario Salvetti. The cohomology of the braid group B_3 and of $SL_2(\mathbb{Z})$ with coefficients in a geometric representation. *Q. J. Math.*, 64(3):847–889, 2013.
- [13] Filippo Callegaro, Fred Cohen, and Mario Salvetti. Cohomology of braids, principal congruence subgroups and geometric representations. *Q. J. Math.*, 65(4):1165–1177, 2014.
- [14] Filippo Callegaro. Salvetti complex, spectral sequences and cohomology of Artin groups. *Ann. Fac. Sci. Toulouse Math.*, special issue “Proceedings of the meeting in Pau”(23):267–296, 2014.
- [15] Filippo Callegaro and Giovanni Gaiffi. On Models of the Braid Arrangement and their Hidden Symmetries. *Int. Math. Res. Not.*, 2015(21):11117–11149, 2015. Published by Oxford University Press, 2015.
- [16] Filippo Callegaro and Giovanni Gaiffi. The S_{n+1} Action on Spherical Models and Supermaximal models of Type A_{n-1} . In *Combinatorial Methods in Topology and Algebra*, volume 12 of *Springer INDAM Series*, pages 173–201. Springer International Publishing Switzerland, 2015.
- [17] Filippo Callegaro, Giovanni Gaiffi, and Pierre Lochak. Divisorial inertia and central elements in braid groups. *J. Algebra*, 457:26–44, 2016.
- [18] Filippo Callegaro and Emanuele Delucchi. The integer cohomology algebra of toric arrangements. *Adv. Math.*, 313:746–802, 2017.
- [19] Filippo Callegaro and Mario Salvetti. Homology of the family of hyperelliptic curves. *Israel J. Math.*, 230(2):653–692, 2019.
- [20] Filippo Callegaro, Michele D’Adderio, Emanuele Delucchi, Luca Migliorini, and Roberto Pagnani. Orlik-Solomon type presentations for the cohomology algebra of toric arrangements. *Trans. Amer. Math. Soc.*, 373(3):1909–1940, 2020.
- [21] Filippo Callegaro and Mario Salvetti. Families of superelliptic curves, complex braid groups and generalized Dehn twists. *Israel J. Math.*, 238(2):945–1000, 2020.
- [22] Filippo Callegaro, Michele D’Adderio, Emanuele Delucchi, Luca Migliorini, and Roberto Pagnani. Corrigendum to “Orlik-Solomon-type presentations for the cohomology algebra of toric arrangements”. *Trans. Amer. Math. Soc.*, 374(5):3779–3781, 2021.
- [23] Filippo Callegaro and Ivan Marin. Cohomology of quasi-abelianized braid groups. *Monatsh. Math.*, 205(1):71–102, 2024.
- [24] Filippo Callegaro and Emanuele Delucchi. Combinatorial generators for the cohomology of toric arrangements. *Topology Appl.*, 355:Paper No. 109027, 35, 2024.

- [25] Filippo Callegaro and Emanuele Delucchi. Corrigendum to “The integer cohomology algebra of toric arrangements” [Adv. Math. 313 (2017) 746–802]. *Adv. Math.*, 483:110662, 2025.

Pisa, December 2nd 2025