

Alessio Borzì

Curriculum vitae

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Education

- 30/09/2019–current (expected) **PhD in Mathematics**, *University of Warwick, Coventry, United Kingdom*.
Advisor: [Diane Maclagan](#)
- 18/12/2020 **Diploma of Scuola Superiore di Catania**, *Scuola Superiore di Catania, Catania, Italy, Summa cum laude*.
Advisor: [Ivan Martino](#), Opponent: [Alicia Dickenstein](#)
- 29/07/2019 **Master's degree in Mathematics**, *Università di Catania, Catania, Italy, Summa cum laude*.
Advisor: [Marco D'Anna](#)
- 20/07/2017 **Bachelor's degree in Mathematics**, *Università di Catania, Catania, Italy, Summa cum laude*.
Advisor: [Marco D'Anna](#)

Publications and Preprints

1. Alessio Borzì. A characterization of the Arf property for quadratic quotients of the Rees algebra. *J. Algebra Appl.*, 19(7):2050127, 14, 2020.
2. Alessio Borzì. Patterns on the numerical duplication by their admissibility degree. In *Numerical semigroups*, volume 40 of *Springer INdAM Ser.*, pages 9–25. Springer, Cham, 2020.
3. Alessio Borzì and Alessio D'Alì. Graded algebras with cyclotomic Hilbert series. *J. Pure Appl. Algebra*, 225(12):Paper No. 106764, 9, 2021.
4. Alessio Borzì, Andrés Herrera-Poyatos, and Pieter Moree. Cyclotomic numerical semigroup polynomials with at most two irreducible factors. *Semigroup Forum*, 103(3):812–828, 2021.
5. Alessio Borzì. Weierstrass sets on finite graphs. *Electron. J. Combin.*, 29(1):Paper No. 1.4, 13, 2022.
6. Alessio Borzì and Ivan Martino. Set of independencies and tutte polynomial of matroids over a domain. *arXiv preprint arXiv:1909.00332*, 2019.
7. Alessio Borzì, Xiangying Chen, Harshit J Motwani, Lorenzo Venturello, and Martin Vodička. The leading coefficient of lascoux polynomials. *arXiv preprint arXiv:2106.13104*, 2021.

Talks

- 18/11/2021 Birational geometry of blow-ups of \mathbb{P}^2 , *Oberseminar Geometrie*, Universität Tübingen, Germany
- 01/11/2021 [Tropical moduli spaces and toric embeddings](#), $\overline{M}_{0,n}$ seminar, (virtually at) University of Warwick, United Kingdom
- 22/04/2021 [Graded algebras with cyclotomic Hilbert series](#), *Graduate student meeting on Applied Algebra and Combinatorics*, (virtually at) Københavns Universitet, Denmark
- 04/02/2021 Tropical methods in toric intersection theory, *Oberseminar Geometrie*, (virtually at) Universität Tübingen, Germany
- 20/11/2019 [Cyclotomic Numerical Semigroups](#), *Postgraduate Seminar*, University of Warwick, United Kingdom
- 17/07/2019 [Face poset and Grothendieck-Tutte polynomial of matroids over a domain](#), *Algebra meets combinatorics in Neuchâtel*, Université de Neuchâtel, Switzerland
- 25/03/2019 Arf property on quadratic quotients of the Rees algebra, *Problem solving seminar*, Stockholm University, Sweden
- 04/09/2018 [A characterization of the Arf property for quadratic quotients of the Rees algebra](#), *International Meeting on Numerical Semigroups (IMNS)*, Cortona, Italy

Conferences

- 03/12/2021 [Applied Algebra and Geometry Research Network](#), Online Conference
- 24–30/10/2021 [Tropical Curves, Logarithmic Structures, and Enumerative Geometry](#), Oberwolfach, Germany
- 26/07–06/08/2021 [Combinatorial Algebraic Geometry](#), Online conference
- 28/06–02/07/2021 [Tropical Moduli Spaces](#), Online conference
- 21–23/04/2021 [Graduate student meeting on Applied Algebra and Combinatorics](#), Online conference
- 19/03/2021 [Birational Geometry and Thereabouts](#), Online conference
- 15/02–05/03/2021 [Research Encounters in Algebraic and Combinatorial Topics](#) (REACT), Online conference
- 08/06–24/07/2020 [Algebraic and Tropical Online Meetings](#) (ATOM), Online conference
- 01–05/06/2020 [Warwick Macaulay 2 Workshop](#), University of Warwick, United Kingdom
Online conference
- 06/12/2019 [Tropical Differential Algebra Workshop](#), Queen Mary University of London, United Kingdom
- 02–04/12/2019 [Einstein Workshop on Polytopes and Algebraic Geometry](#), Freie Universität Berlin, Germany
- 15–17/07/2019 [Algebra meets combinatorics in Neuchâtel](#), Université de Neuchâtel, Switzerland

- 03–07/09/2018 [International Meeting on Numerical Semigroups](#) (IMNS), Cortona, Italy
31/05–04/06/2021 [Encounter in Topology and Algebra](#) (ET'nA), Scuola Superiore di Catania, Italy

Teaching

- Winter 2022 **Teaching assistant**, for the course [MA453 Lie Algebras](#).
Taught by Andrew Macpherson, *University of Warwick*
Fall 2021 **Teaching assistant**, for the course [MA131 Analysis I](#).
Taught by Daniel Ueltschi, *University of Warwick*
Winter 2021 **Teaching assistant**, for the course [MA377 Rings and Modules](#).
Taught by Samir Siksek, *University of Warwick*
Fall 2020 **Teaching assistant**, for the course [MA4L7 Algebraic Curves](#).
Taught by Diane Maclagan, *University of Warwick*

Research visits

- 29/10–28/11/2021 Research period at the Universität Tübingen (Germany) in the combinatorial algebraic geometry group, under the supervision of [Hannah Markwig](#).
07/03–05/06/2019 Research period at the KTH Royal Institute of Technology (Sweden) in the combinatorics group, under the supervision of [Ivan Martino](#).

Other professional activities

- 2021– **Referee** for the European Journal of Combinatorics.
2021– **Member** of the [Associazione Alumni Scuola Superiore di Catania](#).
2020– **Member** of the [London Mathematical Society](#) (LMS).

Outreach

- 02-03/10/2021 Speaker at the [Simposio Matematico RIMSE 2021](#).
19–22/04/2018 **Organizer** for the [Training Course for Mathematical Olympiad](#) (fourth edition) at the Scuola Superiore di Catania.
20–23/04/2017 **Organizer** for the [Training Course for Mathematical Olympiad](#) (third edition) at the Scuola Superiore di Catania.
22–24/04/2016 **Lecturer** for the [Training Course for Mathematical Olympiad](#) (second edition) at the Scuola Superiore di Catania.