# Alessio Borzi

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Homepage <a href="https://alessioborzi.github.io/">https://alessioborzi.github.io/</a>

#### **Current position**



Since PhD student at the University of Warwick

September 30, 2019 Mathematics Institute Advisor: Diane Maclagan

#### **Education**



July 29, 2019 Master's degree in Mathematics

University of Catania, Summa cum laude

Advisor: Marco D'Anna

July 20, 2017 Bachelor's degree in Mathematics

University of Catania, Summa cum laude

Advisor: Marco D'Anna

December 18, 2020 Diploma of Scuola Superiore di Catania

Scuola Superiore di Catania, Summa cum laude

Advisor: Ivan Martino

Opponent: Alicia Dickenstein

### Languages

Mother tongue Italian

*Foreign languages* **English (IELTS 7.5)** 

#### **Talks**

April 22, 2021 Graded algebras with cyclotomic Hilbert series, Graduate student meeting on Applied Algebra and Combinatorics, (virtually at) University of Copenhagen, Denmark

February 4, 2021 Tropical methods in toric intersection theory, Oberseminar Geometrie, (virtually at) University of Tübingen, Germany

November 20, 2019 Cyclotomic Numerical Semigroups, Postgraduate Seminar, University of Warwick, UK

July 17, 2019 Face poset and Grothendieck-Tutte polynomial of matroids over a domain, Algebra meets combinatorics in Neuchatel, Neuchatel, Switzerland

March 25, 2019 Arf property on qudratic quotients of the Rees algebra, Problem solving seminar, Stockholm University, Sweden

September 3 - 7, 2018 A characterization of the Arf property for quadratic quotients of the Rees algebra, International Meeting on Numerical Semigroups (IMNS), Cortona, Italy

#### **Attended conferences**

April 21-23, 2021 Graduate student meeting on Applied Algebra and Combinatorics,

Online Conference

March 19, 2021 Birational Geometry and Thereabouts,

Online conference

February 15 – March 5, Research Encounters in Algebraic and Combinatorial Topics (REACT), 2021 Online conference

June 8 – July 24, 2020 Algebraic and Tropical Online Meetings (ATOM), Online conference

*June 1-5, 2020* Warwick Macaulay 2 Workshop, University of Warwick, UK Online conference

December 6, 2019 <u>Tropical Differential Algebra Workshop</u>, Queen Mary University of London, UK

December 2-4, 2019 <u>Einstein Workshop on Polytopes and Algebraic Geometry</u>, Freie Universitat Berlin, Germany

July 15-17, 2019 Algebra meets combinatorics in Neuchatel, Neuchatel, Switzerland

September 3 - 7, 2018 International Meeting on Numerical Semigroups (IMNS), Cortona, Italy

May 31 - June 4, 2017 Encounter in Topology and Algebra (ET'nA), Catania, Italy

#### **Scientific production**

June 12, 2018 "A characterization of the Arf property for quadratic quotients of the Rees algebra", Journal of Algebra and Its Applications, arXiv:1806.04448

January 29, 2019 "Patterns on the numerical duplication by their admissibility degree", Numerical Semigroups - Springer INdAM Series, arXiv:1901.10571

September 1, 2019 "Set of independencies and Tutte polynomial of matroids over a domain", with <a href="Ivan Martino">Ivan Martino</a>, arXiv:1909.00332

May 19, 2020 "Graded algebras with cyclotomic Hilbert series", with Alessio D'Alì, Journal of Pure and Applied Algebra arXiv:2005.09708

January 21, 2021 "Cyclotomic numerical semigroup polynomials with few irreducible factors,", with <u>Andrés Herrera-Poyatos</u> and <u>Pieter Moree</u>, <u>arXiv:2101.08823</u>

April 14, 2021 "Weierstrass sets on finite graphs", arXiv:2104.07121

#### **Teaching**

Winter 2021 Teaching assistant for the course <u>Rings and Modules</u>, University of Warwick

## Fall 2020 Teaching assistant for the course <u>Algebraic Curves</u>, University of Warwick

#### **Visits**

*March 7- June 5, 2019* Research period at the <u>KTH (Stockholm-Sweden)</u> under the supervision of <u>Ivan Martino</u>, supported by the <u>Scuola Superiore di Catania</u>.

#### **Outreach**

Second Edition: Lecturer (second edition) and organizer (third and fourth edition) of the April 22-24, 2016

Stage of Mathematical Olympiad at the Scuola Superiore di Catania

Third Edition:

April 20-23, 2017 Fourth Edition:

April 19-22, 2018