# Alessio Borzi

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# **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**

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

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 Tropical Differential Algebra Workshop, 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>, <a href="arXiv:1909.00332">arXiv:1909.00332</a>

May 19, 2020 "Graded algebras with cyclotomic Hilbert series", with Alessio D'Alì, 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>, arXiv:2101.08823

# **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