CV

Julian Lawrence Demeio
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EDUCATION

Bachelor, Scuola Normale Superiore — October 2012 - September 2015

Bachelor thesis: *Il teorema di Mordell-Weil e sue applicazioni*,
Advisor: Umberto Zannier, Grade: 110 e lode/110

Master, Scuola Normale Superiore — October 2015 - September 2017

Master thesis: *Non-rational varieties with the Hilbert Property*,
Advisor: Umberto Zannier, Grade: 110 e lode/110

PhD, cotutorship between:
Scuola Normale Superiore — November 2017 - December 2021
Université Paris-Saclay — October 2018 - December 2021

PhD thesis: *Abundance of rational points*, discussed in Scuola Normale Superiore with mixed jury,
Advisors: David Harari (Paris-Saclay), Umberto Zannier (Scuola Normale), Grade: 70 e lode/70

WORK HISTORY

Postdoc Max Planck Institute for Mathematics, Bonn, Germany — December 2021 - August 2022

Postdoc University of Basel, Basel, Switzerland — September 2022 - August 2023

PAPERS and PREPRINTS

Publications/Accepted Papers

◇ Julian L. Demeio. Elliptic Fibrations and the Hilbert Property. *International Mathematics Research Notices*, 07 2019. rnz108.

◇ Julian L. Demeio. Non-rational varieties with the Hilbert property. *Int. J. Number Theory*, 16(4):803–822, 2020.

◇ Pietro Corvaja, Julian L. Demeio, David Masser, and Umberto Zannier. On the torsion values for sections of an elliptic scheme. *J. Reine Angew. Math.*, 782:1–41, 2022.

◇ Julian L. Demeio. The étale Brauer–Manin obstruction to strong approximation on homogeneous spaces. To appear in: *Transactions of the American Mathematical Society*

◇ Pietro Corvaja, Julian L. Demeio, Ariyan Javanpeykar, Davide Lombardo, and Umberto Zannier. Hilbert's irreducibility theorem for abelian varieties. *arXiv e-prints*, page arXiv:2011.12840, November 2020. Submitted to: *Composition Mathematica*

◇ Julian L. Demeio, Sam Streeter. Weak approximation for del Pezzo surfaces of low degree. *International Mathematics Research Notices*, 06 2022. rnac167.

◇ Pietro Corvaja, Julian L. Demeio, Jinbo Ren, Andrei Rapinchuk and Umberto Zannier. Bounded Generation by semi-simple elements: quantitative results. *arXiv e-prints*, page arXiv:2203.00755, March 2022. Accepted in: *Comptes Rendus - Mathématique*

Submitted papers

◇ Julian L. Demeio. Ramified Descent. *arXiv e-prints*, page arXiv:2112.00843, December 2021. Submitted to: *J. Reine Angew. Math.*

TALKS

- *Non rational varieties with the Hilbert Property*, Scuola Normale Superiore, Pisa 29/11/2016
- *Hilbert Property of some Kummer surfaces*, "Study week in Diophantine geometry", Cetraro 01/09/2018
- *Hilbert Proprety and Elliptic Fibrations*, "Diophantine Approximation and Transendence", Luminy (Marseille, France) 10/9/2018
- *Varieties with the Hilbert Property*, Linfoot Number Theory Seminar at Bristol 20/2/2019
- *Hilbert Property and elliptic fibrations*, Junior Seminar during the "Reinventing rational points" trimester, IHP, Paris 6/6/2019
- *Weak weak approximation of surfaces with two conic fibrations*, "Study week in Diophantine geometry", Cetraro 30/7/2019
- *Hilbert Irreducibility Theorem for abelian varieties*, "Study week in Diophantine geometry", Cetraro 30/7/2020
- *The étale Brauer–Manin obstruction to strong approximation on homogeneous spaces*, "Varietés rationnelles" seminar in Paris (online) 18/12/2020
- *The étale Brauer–Manin obstruction to strong approximation on homogeneous spaces*, IML program "Rational points" (online) 14/4/2021
- *On the distribution of rational points on ramified covers of abelian varieties*, IST Vienna (online) 2/6/2021
- *Ramified Descent*, MPIM oberseminar, Max Planck Institute, Bonn (Germany) 6/1/2022
- *Effective euclidean and p-adic equidistribution of torsion parameters in elliptic fibrations*, Oberwolfach (Germany), "Diophantische Approximationen" conference 18/4/2022
- *On the distribution of rational points on ramified covers of abelian varieties*, "Rational Points on Higher-Dimensional Varieties", ICMS (Edinburgh) 27/4/2022
- *Bounded generation in linear groups*, "Study days in Diophantine geometry", Cetraro 26/7/2022
- *Weak weak approximation on del Pezzo surfaces of degree* 2 *and* 3, Università Roma Tor Vergata 18/10/2022
- *Effective equidistribution of torsion parameters in elliptic fibrations*, University of Basel 3/11/2022

PARTICIPATION TO CONFERENCES

-"Workshop on Arithmetic and Geometry", held in Cetraro (Italy), 26-31/8/2016.

-"Specialization Problems in Diophantine Geometry" in Cetraro (Italy), 9-14/7/2017.

-"School on Rationality, Stable Rationality and Birationally Rigidity of Complex Algebraic Varieties" in Udine (Italy), 3/9/2017 - 9/9/2017.

-"Study week in Diophantine geometry" in Cetraro (Italy), 31/8-5/9/2018.

-"Diophantine Approximation and Transendence" in Luminy (Marseille, France), 9-14/9/2018.

-"Reinventing Rational Points" in IHP, Paris (France), 14/4-12/7/2019.

-"Galois Theory and Number Theory" in Dresden (Germany), 13-19/7/2019

-"The first JNT biennal conference" in Cetraro (Italy), 22-27/7/2019.

-"Study week in Diophantine geometry" in Cetraro (Italy), 28/7-2/8/2019.

- "Topics in Rational and Integral Points" in Basel (Switzerland), 2-14/9/2019.
- Arizona Winter School "Nonabelian Chabauty" in Tucson, Arizona (US), 7-11/3/2020.
- "Study week in Diophantine geometry" in Cetraro (Italy), 27-31/7/2020.
- "Conférence en l'honneur d'Alexei N. Skorobogatov" in Paris (France), 3-5/11/2021.
- "London-Paris Number Theory Seminar" in Paris (France), 29-30/11/2021.
- "Rational Points on Higher-Dimensional Varieties" at ICMS, in Edinburgh (UK), 25-29/04/2022.
- "Diophantische Approximationen" in Oberwolfach (Germany), 17-23/04/2022.
- "Leuca2022" in Marina di San Gregorio (Italy), 16-21/05/2022.
- "The second JNT biennal conference" in Cetraro (Italy), 18-22/7/2022.
- "Study days in Diophantine Geometry" in Cetraro (Italy), 24-27/7/2022.

TEACHING

- Tutoring to 5 first-year-undergraduate students for the course "Complementi di matematica" (*Complements of mathematics*) at Scuola Normale Superiore in the academic year 2018/2019. (Total: $\sim$ 60h)
- Teaching assistant in the "Ciclo di seminari" (*Cycle of seminars*) of Umberto Zannier at Scuola Normale Superiore in the academic year 2018/2019. (Total: $\sim$ 20h)
- Teaching assistant for the course "Introduction to analytic number theory" of Pierre Le Boudec at the University of Basel in the Fall semester of 2022. (Total: $\sim$ 20h)

LANGUAGES

Italian	Native
English	Fluent
French	Basic
German	Very basic
Bulgarian	Remnants (I used to speak it better as a child)