

Contact information

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Current position

PhD student at Università degli Studi di Torino, enrolled in the PhD Program: *Pure and Applied Mathematics* (in association with Politecnico di Torino).

Research areas of interest

Number Theory, Enumerative Combinatorics, Discrete Mathematics.

Education

2015 | **Università degli Studi di Torino**
Master of Science, Mathematics, 110/110 cum laude and “menzione di merito”.

2013 | **Università degli Studi di Torino**
Bachelor of Science, Mathematics, 110/110 cum laude.

Awards, prizes, and scholarships

2016 | Award *Medaglia d'argento* and prize *Luciana Picco Botta* sponsored by Università degli Studi di Torino, for the best master thesis in Mathematics of the academic year 2014/2015.

2015 | PhD scholarship *Contemporary Problems in Mathematics*
Ranked first over 35 candidates.

Teaching experiences

2017/18 | Calculus I (as assistant), 60 hours, Politecnico di Torino

2016/17 | Calculus I (as assistant), 60 hours, Politecnico di Torino

Talks and presentations

- 17/12/19 **A coprimality condition on consecutive values of polynomials**
Giornate INdAM di Teoria dei Numeri, Università degli Studi di Genova
http://www.dima.unige.it/ant/giornate_tdn1/
- 17/09/21 **On the greatest common divisor of n and the n th Fibonacci Number**
20th International Workshop for Young Mathematicians, Jagiellonian University
<http://kmsuj.im.uj.edu.pl/workshop/index.php>
- 17/07/06 **On the G.C.D. of n and the n th term of a linear recurrence**
XXXth Journées Arithmétiques, University of Caen
<http://www.math.unicaen.fr/lmno/JA2017/>
- 17/06/05 **On the sum of digits of the factorial**
Numeration 2017, Università degli Studi Roma Tre
<http://logica.uniroma3.it/jn17/>
- 16/11/04 **A factor of integer polynomials with minimal integrals**
1st Number Theory Meeting - Torino, Università degli Studi di Torino
http://ntmeeting.polito.it/1st_Number_Theory_Meeting.html

Preprints

- Practical numbers in Lucas sequences**
<https://www.researchgate.net/publication/323512638>
- p -adic denseness of members of partitions of \mathbb{N} and their ratio sets**
(with Piotr Miska)
<https://www.researchgate.net/publication/322661982>
- Waring's theorem for binary powers**
(with Daniel Kane and Jeffrey Shallit)
<https://arxiv.org/abs/1801.04483>
- The moments of the logarithm of a G.C.D. related to Lucas sequences**
<https://www.researchgate.net/publication/321331220>

Accepted peer-reviewed papers

- The density of numbers n having a prescribed G.C.D. with the n th Fibonacci number**
(with Emanuele Tron)
Indagationes Mathematicae
<https://arxiv.org/abs/1705.01805>

A note on primes in certain residue classes

International Journal of Number Theory

(with Paolo Leonetti)

<https://arxiv.org/abs/1710.05058>

Central binomial coefficients divisible by or coprime to their indices

International Journal of Number Theory

<https://doi.org/10.1142/S1793042118500707>

On numbers n relatively prime to the n th term of a linear recurrence

Bulletin of the Malaysian Mathematical Sciences Society

<https://doi.org/10.1007/s40840-017-0514-8>

On the greatest common divisor of n and the n th Fibonacci number

(with Paolo Leonetti)

Rocky Mountain Journal of Mathematics

<https://arxiv.org/abs/1704.00151>

On the k -regularity of the k -adic valuation of Lucas sequences

(with Nadir Murru)

Journal de Théorie des Nombres de Bordeaux

<https://arxiv.org/abs/1603.09310>

Published peer-reviewed papers

- 2017 **On the closure of the image of the generalized divisor function**
Uniform Distribution Theory **12**, 77–90.
<https://doi.org/10.1515/udt-2017-0016>
- 2017 **A coprimality condition on consecutive values of polynomials**
(with Márton Szikszai)
Bulletin of the London Mathematical Society **49**, 908–915.
<https://doi.org/10.1112/blms.12078>
- 2017 **Distribution of integral values for the ratio of two linear recurrences**
Journal of Number Theory **180**, 195–207.
<https://doi.org/10.1016/j.jnt.2017.04.015>
- 2017 **p -adic quotient sets**
(with Stephan Ramon Garcia, Yu Xuan Hong, Florian Luca, Elena Pinsker, Evan Schechter, and Adam Starr)
Acta Arithmetica **179**, 163–184.
<http://doi.org/10.4064/aa8579-4-2017>
- 2017 **The quotient set of k -generalised Fibonacci numbers is dense in \mathbb{Q}_p**
Bulletin of the Australian Mathematical Society **96**, 24–29.
<https://doi.org/10.1017/S0004972716001118>
- 2017 **A factor of integer polynomials with minimal integrals**
Journal de Théorie des Nombres de Bordeaux **29**, 637–646.
<http://doi.org/10.5802/jtnb.994>

- 2017 **On numbers n dividing the n th term of a Lucas sequence**
International Journal of Number Theory **13**, 725–734.
<http://doi.org/10.1142/S1793042117500373>
- 2017 **On the p -adic valuation of Stirling numbers of the first kind**
 (with Paolo Leonetti)
Acta Mathematica Hungarica **151**, 217–231.
<http://doi.org/10.1007/s10474-016-0680-4>
- 2016 **The p -adic valuation of Lucas sequences**
The Fibonacci Quarterly **54**, 118–124.
<http://www.fq.math.ca/54-2>
- 2016 **On the p -adic valuation of harmonic numbers**
Journal of Number Theory **166**, 41–46.
<http://doi.org/10.1016/j.jnt.2016.02.020>
- 2015 **Counting arithmetic formulas**
 (with Edinah K. Gnang and Maksym Radziwiłł)
European Journal of Combinatorics **47**, 40–53.
<http://doi.org/10.1016/j.ejc.2015.01.007>
- 2015 **On the number of arithmetic formulas**
International Journal of Number Theory **11**, 1099–1106.
<http://doi.org/10.1142/S1793042115500591>
- 2015 **On the sum of digits of the factorial**
Journal of Number Theory **147**, 836–841.
<http://doi.org/10.1016/j.jnt.2014.09.003>
- 2014 **Covering an arithmetic progression with geometric progressions and vice versa**
International Journal of Number Theory **10**, 1577–1582.
<http://doi.org/10.1142/S1793042114500456>
- 2014 **On the exponential sum with the sum of digits of hereditary base b notation**
INTEGERS **14**, article A36.
<http://www.integers-ejcnt.org/vol14.html>
- 2014 **On the asymptotic density of the support of a Dirichlet convolution**
Journal of Number Theory **134**, 1–12.
<http://doi.org/10.1016/j.jnt.2013.07.012>
- 2013 **Uncertainty principles connected with the Möbius inversion formula**
 (with Paul Pollack)
Bulletin of the Australian Mathematical Society **88**, 460–472.
<http://doi.org/10.1017/S0004972712001128>
- 2012 **On arithmetic progressions of integers with a distinct sum of digits**
Journal of Integer Sequences **15**, article 12.8.1.
<https://cs.uwaterloo.ca/journals/JIS/VOL15/Sanna/sanna3.html>

2012 | **A new elementary proof of the inequality $\varphi(n) > \pi(n)$**
Notes on Number Theory and Discrete Mathematics **18**, No. 3, 35–37.
<http://nntdm.net/volume-18-2012/number-3/35-37>

References

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