

Curriculum Vitae

Alexandru Pascadi

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Education

October 2021 – Present **Institution:** *Mathematical Institute, University of Oxford*
Program: DPhil in Mathematics (3rd year of 4)
Supervisor: Prof. James Maynard
Topics: Analytic Number Theory, Additive Combinatorics

September 2017 – June 2021 **Institution:** *University of California, Los Angeles*
Degrees: M.A. in Pure Mathematics
B.S. in Mathematics of Computation
GPA: 4.0 / 4.0

Publications & Preprints

- ✧ *Large sieve inequalities for exceptional Maass forms and applications.* [Preprint \(2024\)](#), arxiv:2404.04239.
- ✧ *Smooth numbers in arithmetic progressions to large moduli.* [Preprint \(2023\)](#), arxiv:2304.11696.
- ✧ *The sparse regularity method with Schatten norms and Shannon entropy.* [Preprint \(2023\)](#), arxiv:2305.08567.
- ◆ *Computer-assisted proofs of congruences for multipartitions and divisor function convolutions, based on methods of differential algebra.* [The Ramanujan Journal \(2022\)](#), 57(1), 1-36.
- ◆ *Several new product identities in relation to Rogers–Ramanujan type sums and mock theta functions.* [Research in the Mathematical Sciences \(2021\)](#), 8(1), 1-58.
- ◆ *Patterns of primes in the Sato–Tate conjecture*, with N. Gillman, M. Kural, J. Peng, and A. Sah. [Research in Number Theory \(2020\)](#), 6(1), 1-30.

Teaching

October 2021 – June 2023 **Mathematical Institute (Oxford)**
Tutor & Teaching Assistant
Led tutorials & revision classes for Analytic Number Theory and Information Theory, each in two years. Presented solutions and marked homework.

July 2023 **AwesomeMath Summer Program**
Instructor
Held virtual lessons for a three-week course in Number Theory for advanced high school students, preparing for Olympiads.

*September 2018 –
June 2021* **Olga Radko Endowed Math Circle (UCLA)**
Instructor

Designed and taught weekly Olympiad-training lessons for students ranging from 6th to 9th grade. Focused on the Bay Area Mathematical Olympiad.

Other Activities

December 2023 **Undergraduate Admissions (Corpus Christi College, Oxford)**

Held interviews for prospective undergraduate students in Mathematics, together with Prof. Paul Dellar. Assigned marks and wrote short evaluations.

2018 – 2021 **Undergraduate Mathematics Colloquium (UCLA)**

Organized one-hour lectures held by UCLA faculty on various mathematical topics, with up to 300 undergraduate attendees.

July 8–12, 2018 **International Mathematical Olympiad Coordination (Romania)**

Marked & coordinated solutions for the number theory problem at IMO 2018.

Awards

*July 2022 –
September 2024* **Garside Senior Scholarship (Corpus Christi College, Oxford)**
Awarded to one graduate student in Mathematics every two years

May 2021 **Daus Prize (UCLA)**
Awarded for cumulative performance in undergraduate and Master's studies

July 2019 **Spirit of Ramanujan STEM Fellowship**
Funded by the Templeton World Charity Foundation

June 2018 **Richard F. Arens Undergraduate Award (UCLA)**
Awarded for freshman year results

December 2017 **William Lowell Putnam Mathematical Competition**
Honorable mention, rank 39

*September 2017 –
June 2021* **Mathematics Undergraduate Merit Scholarship (UCLA)**
Awarded yearly to one incoming undergraduate student

July 2016 **International Mathematical Olympiad (Hong Kong)**
Silver medal, representing Romania