

Azul Lihuen Fatalini

Personal Details

Email a.l.fatalini@leeds.ac.uk | azulihuen@gmail.com
Website azul-fatalini.notion.site

Employment

- 2025-Present **Research fellow in Set Theory**, University of Leeds, UK.
Postdoctoral position. Mentor: Asaf Karagila.
- 2020–2024 **Research assistant**, Universität Münster, Germany.
Doctoral position (75 % position, salary level E13, TV-L funded by Cluster of Excellence Münster + 25 % position given by Ada Lovelace Fellowship).

Education

- 2020–2024 **PhD in Mathematics**, Universität Münster, Germany.
Thesis: *Paradoxical sets and the Axiom of Choice*. Advisor: Ralf Schindler.
Grade: magna cum laude. Defense date: 27.09.24.
- 2019–2020 **PhD student**, National University of Córdoba, Argentina.
CONICET Fellowship. Discontinued to be able to study abroad.
- 2013–2018 **Licentiate in Mathematics**, (*Bachelor+Master equivalent, 5 years program*), National University of Córdoba, Argentina.
Thesis: *Hyperbolic plane geometry*. Advisors: Juan Pablo Rossetti (National University of Córdoba) and Peter Doyle (Dartmouth College).
GPA: 9.88/10.
- 2015–2018 **Teacher of Mathematics**, (*Bachelor's degree, 4 years program*), National University of Córdoba, Argentina.
GPA: 9.57/10.

Research visits

- June 2025 **Research stay as visitant professor**, with *Pedro Sánchez Terraf*, Universidad Nacional de Córdoba, Argentina.
Included giving a minicourse for undergraduate students.
- March 2025 **Research stay**, with *Aristotelis Panagiotopoulos*, Universität Wien, Austria.
- March 2025 **Research stay**, with *Jindřich Zapletal*, University of Florida, USA.
- Sept 2022 **Research stay**, with *Asaf Karagila*, University of Leeds, UK.

Teaching experience

- 2025-Present **MATH3001 project supervisor**, University of Leeds.
Supervisor of a group of six students for their MATH3001 project (equivalent to bachelor's thesis) on the topic *Transfinite Induction*.
- 2017–2019 **Teacher in a Math olympiad workshop**.
Workshop at a school, destined to primary and high school students who want to train for mathematical olympiads.
- 2016–2018, **Teaching Assistant**, at National University of Córdoba.
2020 Hired by the Math Department.

Conferences and Seminars

Conferences as invited speaker

- July 2026 **Invited speaker**, *15th Panhellenic Logic Symposium*, Athens, Greece.
- 2025 **Invited speaker**, *Young Set Theory Workshop*, Vienna, Austria.
- 2025 **Invited speaker**, *Annual 2025 ÖMG-DMV Meeting (Symposium on Set Theory of the reals)*, Linz, Austria.
- 2025 **Invited speaker**, *South Eastern Logic Symposium (SEALS)*, Gainesville, USA.
- 2025 **Invited speaker**, *Young Topology and Set Theory Meeting (online)*, Catania, Italy.
- 2024 **Invited speaker**, *120 Years of Choice*, Leeds, UK.
- 2022 **Invited speaker**, *Set Theory in the UK*, Leeds, UK.

Other conferences

- June 2026 **Attendee**, *Simons Semester (Gödel's program)*, Będlewo/Warsaw, Poland.
- 2025 **Speaker**, *XVIII International Workshop in Set Theory*, Marseille, France.
- 2024 **Poster presenter**, *Young Set Theory Workshop*, Budapest, Hungary.
- 2023 **Speaker and poster presenter**, *PhDs in Logic XIV*, Granada, Spain.
- 2023 **Speaker**, *Winter school: Section set theory and topology*, Štěkeň, Czech Republic.
- 2022 **Speaker**, *5th Münster conference on inner model theory*, Münster, Germany.
- 2022 **Speaker**, *Winter school: Section set theory and topology*, Hejnice, Czech Republic.
- 2021-2025 **Attendee**, of several other international conferences.
 - *The Vienna Oracle of Set Theory (VOrST)*, Vienna, Austria.
 - *European Set Theory Conference*, Münster, Germany.
 - *Determinacy, Inner Models, and Forcing Axioms*, Vienna, Austria.
 - *Perspectives in Set Theory*, Warsaw, Poland.
 - *CHEESE (Choiceless Elementary Embeddings of Sets) Workshop*, Leeds, UK.
 - *European Set Theory Conference*, Turin, Italy.
 - *XVI International Luminy Workshop in Set Theory*, CIRM, Marseille, France.
 - *RIMS Workshop "Recent Developments in Set Theory of the Reals" (online)*, Kyoto, Japan.
- 2015–2019 **Attendee**, of the five annual meetings of the Argentinian Mathematical Union that took place in those years, Argentina.

Seminar talks

- 2026 *Séminaire Général de Logique*, IMJ- Paris Rive Gauche, France.
- 2025 *Logic Seminar*, University of Manchester, UK.
- 2025 *Logic Working Group Seminar*, University of Turin, Italy.
- 2025 *KGRC Set Theory Seminar*, University of Vienna, Austria.
- 2025 *KGRC Logic Colloquium*, University of Vienna, Austria.
- 2024 *Posetting II*, National University of Córdoba, Argentina.
- 2024 *Descriptive Dynamics and Combinatorics Seminar*, Montreal, Canada.
- 2024 *Celebrating Women in Math day*, Bielefeld University, Germany.
- 2020 *Seminar of graduate students*, National University of Chile.
- 2016-2023 *Seminar of graduate students*, National University of Córdoba.
Topics “Euclides vs Cantor”(2023), “Forcing paradoxical sets”(2021) “Combinatorics: Ramsey theory and random graphs”(2019), “Hyperbolic plane geometry: area of polygons”(2018), “The art of solving math problems” (2016).

Organization of conferences or seminars

- Sept 2026 **Organizer**, *FLINTA in Set Theory conference*, Vienna, Austria.
- May 2026 **Organizer**, *ROBUST Models workshop*, Leeds, UK.
- 2023 **Local organizer**, *Young Set Theory workshop*, Münster, Germany.
- 2023 **Organizer**, *of the PhD Seminar of Set Theory*, Universität Münster.
- 2022 **Organizer**, *of the Seminar of graduate students*, Universität Münster.
- 2020 **Organizer**, *of the Seminar of graduate students*, National University of Córdoba.

List of publications

- A. FATALINI AND L. SERAFIN, *Funicular preorders can be prelinearized without free ultrafilters over \mathbb{N}* , preprint.
- A. FATALINI, *Thesis abstract*, Bulletin of Symbolic Logic, 2025.
- A. FATALINI, *Partitions of \mathbb{R}^3 into unit circles with no well-ordering of the reals*, arXiv:2501.03131, accepted to appear in Transactions of the American Mathematical Society.
- A. FATALINI AND R. SCHINDLER, *The transcendence degree of the reals over certain set-theoretical subfields*, arXiv:2501.00616, Journal of Symbolic Logic, 2025.

Awards and Honors

- 2024 **Recognition of doctoral excellence**, *among the doctoral theses in logic in the last two years from the German-speaking research community*.
- 2018 **Honorable Mention in the Competencia Interuniversitaria Matemática Argentina (CIMA)**, *CIMA is a Mathematical Olympiad for undergraduates*.
Team with M. Hunicken
- 2017 **Second best GPA**, *out of all fourth-year students in the fields of Math, Physics, Computer Science and Astronomy at the National University of Córdoba*.
- 2017 **Excellence Award Luis Pasteur**.
Monetary award given by Obra Social Luis Pasteur to the 20 best GPAs that entered the national contest.
- 2016, 2015 **First place in the CIMA**.
Team with L. Ferroni
- 2013 **Honorable mention and “Most original solution” in the CIMA**.
Team with L. Ferroni
- 2012 **Honorable Mention in the 53rd International Mathematical Olympiad (IMO)**.

Institutional Activities

- 2026-Present **Postdoc representative**, *at the Maths Strategy Committee*, University of Leeds.
- 2025 **Panelist**, *round table on Equity, Diversity and Inclusion in Mathematics*, at the Inclusion, Diversity and Equity in Algebra (IDEAL) Meeting, University of Leeds.
- 2023 **Member**, *of the Equal Opportunity Committee*, Universität Münster.
This role involved the organization of different events for May 12 and the organization of regular lunches with FLINTA people from the department.
- 2021-2022 **Mentor**, *as part of the MINT mentorship program for women master students*, Universität Münster.
- 2017–2019 **Organizer**, *of different institutional events of the Math Department*, National University of Córdoba.
- 2015-2018 **Representative of undergraduate Math students**, *in the Mathematics Council*, National University of Córdoba.

Others

- Languages Spanish (native), English (advanced), Portuguese (advanced), German (intermediate)
- 2025-Present **Member of the jury for the CIMA**, Argentina.
CIMA is the national mathematical olympiad for undergraduates.
- 2025 **Member of the jury for the UMA essay contest**, Argentina.
This is a national math essay contest for undergraduates.
- 2024 **Podcast appearance, in the third episode of the podcast “On a tangent”**.
This is a podcast about the stories behind the mathematics, in which the host interviews early career researchers of Mathematics Münster.
- 2017 **Collaborator, with the (partial) translation from English to Spanish of the book “A singular mathematical Promenade” by Étienne Ghys**, IMPA, Rio de Janeiro.
[Argentinian Mathematical Olympiad \(OMA\)](#)
- 2019 **Member of the jury for the national competition**.
- 2018, 2019 **Member of the jury for several regional competitions**.
- 2015, 2018, **Member of the jury for the national competition “Mateclubes”**.
2019 Mateclubes is an Argentinian Mathematical Olympiad organized by teams.
- 2011–2019 **Collaborator, of the Argentinian Mathematical Olympiad Foundation**, in regional, national and international competitions such as:
 - Southern Cone Olympiad 2016
 - Ibero-American Olympiad 2017
 - Río de La Plata Olympiad 2018 and 2019