# Azul Lihuen Fatalini

## Personal Details

| | |
|---|---|
| Birth | 28th of February, 1995 \| Tucumán, Argentina |
| Languages | Spanish (native), English (advanced), Portuguese (advanced), German (intermediate) |
| Email | azul.fatal@uni-muenster.de \| azulihuen@gmail.com |
| Website | azul-fatalini.notion.site |

## Education

### Degrees

**2020–Present** **PhD student**, Universität Münster, Germany, Advisor: Prof. Ralf Schindler.
Doctoral position (75 % position, salary level E13, TV-L funded by Cluster of Excellence Münster + 25 % position given by Ada Lovelace Fellowship).

**2019–2020** **PhD student**, National University of Córdoba, Argentina.
CONICET Fellowship. Discontinued to be able to study abroad.

**2013–2018** **Licenciada en Matemática**, *(Bachelor+Master equivalent, 5 years program)*, National University of Córdoba, Argentina.
GPA: 9.88/10.
Thesis: Hyperbolic plane geometry. Advisors: Juan Pablo Rossetti (National University of Córdoba) and Peter Doyle (Dartmouth College).

**2015–2018** **Profesora de Matemática**, *(Teacher of Mathematics, Bachelor's degre, 4 years program)*, National University of Córdoba, Argentina.
GPA: 9.57/10.

### Complementary Education

**2019 and 2017** **Summer Program**, *course "Combinatorics I"(2019) and 'Topics of Singularity Theory: Combinatorics, Topology and Algebra" (2017)*, Instituto de Matemática Pura e Aplicada (IMPA), Río de Janeiro, Brazil.
Grades: A

## Awards and Honors

**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)**.

## List of publications

○ A. FATALINI, *Partitions of $\mathbb{R}^3$ into unit circles with no well-ordering of the reals*, in preparation.

○ A. FATALINI AND R. SCHINDLER, *Transcendence degree of the reals over certain set-theoretical subfields*, in preparation.

## Conferences and Seminars

### Conferences

| | |
|---|---|
| July 2024 | **Invited speaker**, *120 Years of Choice*, Leeds, UK. |
| 2023 | **Attendee**, *Perspectives in Set Theory*, Warsaw, Poland. |
| 2023 | **Speaker**, *PhDs in Logic XIV*, Granada, Spain. |
| 2023 | **Local organizer**, *Young Set Theory Workshop*, Münster, Germany. |
| 2023 | **Speaker**, *Winter school: Section set theory and topology*, Štěkeň, Czech Republic. |
| 2022 | **Speaker**, *Set Theory in the UK*, Leeds, UK. |
| 2022 | **Attendee**, *CHEESE Workshop (Choiceless Elementary Embeddings of Sets)*, Leeds, UK. |
| 2022 | **Attendee**, *European Set Theory Conference 2022*, Turin, Italy. |
| 2022 | **Speaker**, *5th Münster conference on inner model theory*, Münster, Germany. |
| 2022 | **Speaker**, *Winter school: Section set theory and topology*, Hejnice, Czech Republic. |
| 2021 | **Attendee**, *XVI International Luminy Workshop in Set Theory*, CIRM, Marseille, France. |
| 2021 | **Attendee (online)**, *RIMS Workshop "Recent Developments in Set Theory of the Reals"*, Kyoto University, Japan. |
| 2015–2020 | **Attendee**, *of the six annual meetings of the Argentinian Mathematical Union that took place in those years*, Argentina. |

### Seminars

| | |
|---|---|
| 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. |
| 2020 | **Speaker (online)**, *"The Continuum Hypothesis"*, on the Seminar of graduate students, National University of Chile. |
| 2016-2023 | **Speaker**, *on the 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)*, Seminar of graduate students, National University of Córdoba. |

## Teaching Experience

| | |
|---|---|
| 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, 2020 | **Teaching Assistant**, at National University of Córdoba. Hired by the Math Department. |

## Institutional Activities

**2023** **Member**, *of the Equal Opportunity Committee*, Universität Münster.

**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

**2017** **Collaborator**, *with the (partial) translation from English to Spanish of the book "A singular mathematical Promenade" by Étienne Ghys*, IMPA, Rio de Janeiro.

**2013-2017** **Student grant**, *thanks to Retama Foundation*.
Retama is a private foundation that awards scholarships to outstanding high school students who have to move to another city for university studies.

### Argentinian Mathematical Olympiad (OMA)

**2019** **Member of the jury in the national contest**.

**2018, 2019** **Member of the jury in several regional contests**.

**2015, 2018, 2019** **Member of the jury of the national contest "Mateclubes"**.
Mateclubes is an Argentinian Mathematical Olympiad organized by teams.

**2011–2019** **Collaborator**, *of the Argentinian Mathematical Olympiad Foundation*, in regional, national and international contests such as:.

- Southern Cone Olympiad 2016
- Ibero-American Olympiad 2017
- Río de La Plata Olympiad 2018 and 2019