# Azul Lihuen Fatalini

# Personal Details

Birth 28th of February, 1995 | Tucumán, Argentina

Languages Spanish (native), English (advanced), Portuguese (intermediate), German (interme-

diate)

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## Education

## **Degrees**

2020-Present PhD student, Universität Münster, 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).

2013–2018 **Licenciada en Matemática**, (Bachelor+Master equivalent, 5 years program), Universidad Nacional de Córdoba, Argentina.

GPA: 9.88/10.

Thesis: Hyperbolic plane geometry. Advisors: Juan Pablo Rossetti (Universidad Nacional de Córdoba) and Peter Doyle (Dartmouth College).

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

## Complementary Education

2019 and Summer Program, course "Combinatorics I"(2019) and 'Topics of Singularity

7 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 in Universidad Nacional de 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).

## Conferences and Seminars

#### Conferences

- 2022 **Speaker**, "Partitions of  $\mathbb{R}^3$  in unit circles and the Axiom of choice", 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**, "Partitions of  $\mathbb{R}^3$  in unit circles and the Axiom of choice", 5th Münster conference on inner model theory, Münster, Germany.
- 2022 **Speaker**, "Partitions of  $\mathbb{R}^3$  in unit circles and the Axiom of choice", Winter school: Section set theory and topology, Hejnice, Czech Republic.
- 2021 Attendee, XVI International Luminy Workshop in Set Theory, CIRM, Marseille.
- 2021 **Attendee (online)**, RIMS Workshop "Recent Developments in Set Theory of the Reals".
- 2015–2020 **Attendee**, of the six Argentinian Mathematical Union annual meetings that took place in those years.

#### **Seminars**

- 2022 **Speaker**, "Paradoxical sets and the Axiom of Choice", on the Ada Lovelace seminar, Universität Münster.
- 2022 **Organizer**, of the Seminar of graduate students, Universität Münster.
- 2021 **Speaker**, "Forcing a Mazurkiewitz set", on the Oberseminar Mengenlehre, Universität Münster.
- 2020 Organizer, of the Seminar of graduate students, Universidad Nacional de Córdoba.
- 2020 **Speaker**, "The Continuum Hypothesis", on the Seminar of graduate students, Universidad Nacional de Chile.
- 2016-2021 **Speaker**, on the topics "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, Universidad Nacional de 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, Teaching Assistant, at Universidad Nacional de Córdoba.
  - 2020 Hired by the Math Department.

# Languages

# English language exam

2019 Toefl, Score: 103/120.

Reading (30/30), Listening (25/30), Speaking (22/30), Writing (26/30).

2018 **Toefl**, *Score:* 105/120.

Reading (28/30), Listening (30/30), Speaking (20/30), Writing (27/30).

#### Courses

2022 German B2, enrolled.

Sprachenzentrum, Universität Münster.

2014–2015 **Portuguese**, *Two basic courses*. CEPE Institute, Córdoba, Argentina.

2007–2009 **English**, Four courses, basic to advance level. Instituto de Lenguas Extranjeras (ILE), Tucumán, Argentina.

# 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, Member of the jury of the national contest "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 contests such as:
  - Southern Cone Olympiad 2016
  - Ibero-American Olympiad 2017
  - o Río de La Plata Olympiad 2018 and 2019

### Institutional Activities

- 2021-2022 **Mentor**, as part of the MINT female mentorship program for master students, Universität Münster.
- 2017, 2018 **Organizer**, of institutional events of the Math Department, Universidad Nacional and 2019 de Córdoba.
  - Mathematics Research Groups Day (2017, 2018)
  - May 12th, Celebrating Women in Mathematics (2019)
- 2015-2018 **Representative of undergraduate Math students**, *in the Mathematics Council*, Universidad Nacional de Córdoba.