



## Gonzalo Jiménez

Ph.D. in mathematics

- ▶ 18/09/1989 in Santiago
- ▶ Chilean

## Skills

**TEX** 12+ yrs.

**Python / Java** 3+ yrs.  
**Sage / Matlab**

**Spanish** Native

**English** C1

**French** B1

**Portuguese** B1

## Contact

- 📍 Las Palmeras 3495  
Ñuñoa, Santiago
- ☎ +56 9 7465 8459
- ✉ gojimenez@ug.uchile.cl
- 🏠 <https://gingfreecss17.github.io/>

## Biography

Mathematician. Working on Representation theory of Hecke algebras, Soergel bi-modules, Categorification, and Combinatorics. Interested in algorithms, graphical representation of data, and their topological structures.

## Working experience

**Creator of problems for the PAES**  
DEMRE  
Universidad de Chile

2023

Creating, validating, and proposing problems for the national university entrance mathematics exam.

**Tutor in the Integration to University Mathematics Program**  
Department of Mathematics  
Universidad Católica

Fall/2018

Supporting first and second year students in Calculus and Linear Algebra  
Business students

**Tutor at Mathematics Helping Room**  
Department of Mathematics  
Universidad Católica

Fall/2017

Helping to solve any mathematical doubt to any student of any career

**Assistant of the Mathematical Reasoning course**  
Department of Mathematics  
Universidad Católica

Fall/2015

Calculus and ODE course for Medicine students

**Assistant of the Quantitative Reasoning course**  
Department of Mathematics  
Universidad Católica

Fall/2015

Logic, Probability and Statistics for Pedagogy students

**Tutor at Mathematics Helping Room**  
Department of Mathematics  
Universidad Católica

Fall/2015

Helping to solve any mathematical doubt to any student of any career

**Assistant of the Ordinary Differential Equations course**  
Department of Mathematics  
Universidad Católica

Fall/2015

ODE course for Engineering, Physics and Astronomy students

## Education

2023

**Doctorado en Matemática (Ph.D.)**

Universidad de Chile

*Algebra - Combinatory*

Ph.D. thesis: "Counterexamples to the Forking Path Conjecture".

2015

**Mestrado em Matemática (M.Sc.)**

IMPA

*Algebra - Combinatory*

Master thesis: "Tiles, Conway's tiling groups and some related problems".

2012

**Licenciatura en Matemática (B.Sc.)**

Universidad de Chile

*Number Theory - Algebra*

Investigation Unit: "Lattices and their behavior under completions".

## Other Interests

- ▶ Cycling
- ▶ Running
- ▶ Swimming

**Assistant of the Ordinary Differential Equations course**

Department of Mathematics  
Universidad de Chile

Spring/2012

Calculus and ODE course for Biology, Chemistry and Engineering students

**Assistant of the Linear Algebra course**

Department of Mathematics  
Universidad de Chile

Fall/2011

Linear Algebra course for Mathematics and Physics students

**Member of Academic Committee**

Scholar Championship of Mathematics (CMAT)  
Universidad de Santiago

2008 - 2015

Creating, solving, evaluating and proposing problems for the championship. Correcting students tests. Professor in extracurricular workshops for outstanding students

## Scholarships/Awards

- Beca Conicyt de Doctorado Nacional *Chile, 2017*
- Bourse d'études Fondation Sciences Mathématiques de Paris *France, 2015*
- Bolsa de estudos CNPq *Brazil, 2013*
- Best undergraduate student in the generation *Chile, 2012*
- Beca Universidad de Chile *Chile, 2007*
- Maximum score in the national university entrance exam (PSU) *Chile, 2007*

## Publications

- G. A. Jiménez. "On the Forking Path Conjecture". *Manuscript for publication.* August, 2023.

## Additional studies

- Course "English as a medium of instruction" - Spring 2022  
Postgraduate Department - Universidad de Chile
- Course "Introduction to University Teaching" - Spring 2021  
Postgraduate Department - Universidad de Chile
- Course "Data structures with Python" - Fall 2020  
Coursera - Universidad Austral
- Course "Introduction to programming with Python" - Fall 2020  
Coursera - Universidad Austral

Valdivia, december 11, 2023

Gonzalo Jiménez