

# David Fisac

Universitat Autònoma de Barcelona | [david.fisac@uab.cat](mailto:david.fisac@uab.cat) | [Personal Page](#)

## Employment

---

Postdoctoral researcher at Universitat Autònoma de Barcelona.	Feb 2025 – Present
---	--------------------

## Education

---

Universitat Autònoma de Barcelona, Grau en Matemàtiques.	Sept 2015 – June 2018
Imperial College London, MSc in Pure Mathematics, Under the supervision of Marie-Amélie Lawn.	Sept 2019 – Sept 2020
Université du Luxembourg - Universitat Autònoma de Barcelona, PhD in Mathematics, Under the co-supervision of Florent Balacheff and Hugo Parlier.	Feb 2021 – Jan 2025

## (Pre)Publications

---

Markov's conjecture on integral necklaces, <a href="#">arXiv:2501.15550v1</a> .	
Word-length curve counting on the once-punctured torus, with Mingkun Liu, <a href="#">arXiv:2404.09372v2</a> .	Submitted
A Basmajian-type inequality for Riemannian surfaces, with Florent Balacheff, J. Topol. Anal. (2025), <a href="#">arXiv:2311.03182v1</a> .	Accepted

## Talks

---

Perspectives on Markov Numbers (lightning session), BIRS, Banff, Canada.	Jan 2025
Colloque de Géométrie, Université Paris-Est Créteil, Paris.	Nov 2024
2nd International AMS-UMI Joint Meeting, Palermo, Sicily.	Jul 2024
Hengstberger Symposium: Geometry and dynamics of surfaces beyond finite-type, Heidelberg, Germany.	Jul 2024
Surfaces, Manifolds and Related Topics (SMaRT), Mar 2024, Luxembourg.	Mar 2024
Seminari de Geometria, UAB, Barcelona.	Jan 2024
Geometry, Probability and their Synergies, Les Diablerets, Switzerland.	Mar 2023
VI Congreso de Jóvenes Investigadores de la RSME, León, Spain.	Feb 2023

## References

---

Hugo Parlier, University of Fribourg, [hugo.parlier@unifr.ch](mailto:hugo.parlier@unifr.ch) .  
Florent Balacheff, Universitat Autònoma de Barcelona, [florent.balacheff@uab.cat](mailto:florent.balacheff@uab.cat).  
Viveka Erlandsson, University of Bristol, [v.erlandsson@bristol.ac.uk](mailto:v.erlandsson@bristol.ac.uk) .  
Tommaso Cremaschi, Trinity College Dublin, [cremasct@tcd.ie](mailto:cremasct@tcd.ie) .

## Teaching

---

**Linear Algebra I**, University of Luxembourg.

2022

**Math Forge** (all-round tutoring for Mathematics BSc), University of Luxembourg.

2021-2023-2024

## Languages

---

**Catalan**: native.

**Spanish**: native.

**English**: proficient.

**Italian**: proficient.

**French**: basic.

## Programming

---

**Languages**: Python, C, Java.

**Mathematical programming**: Mathematica, SageMath, R.