David Fisac

Universitat Autònoma de Barcelona | david.fisac@uab.cat | Personal Page

Empl	oyment
------	--------

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

Education

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

(Pre)Publications

Markov's conjecture on integral necklaces,

Submitted

arXiv:2501.15550.

Word-length curve counting on the once-punctured torus,

Submitted

with Mingkun Liu,

arXiv:2404.09372.

A Basmajian-type inequality for Riemannian surfaces, Published

with Florent Balacheff, J. Topol. Anal. (2025), online ready,

arXiv:2311.03182.

(Future) Talks

Geometry seminar, MPI MiS, Leipzig, Germany.	(June 2025)
Combinatorics mittagsseminar, ETH, Zurich, Switzerland.	(May 2025)
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	Jul 2024
finite-type, Heidelberg, Germany.	
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 .

Florent Balacheff, Universitat Autònoma de Barcelona, florent.balacheff@uab.cat.

Viveka Erlandsson, University of Bristol, v.erlandsson@bristol.ac.uk .

Tommaso Cremaschi, Trinity College Dublin, cremasct@tcd.ie .

Teaching

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

2022 2021-2023-2024

Languages

Catalan: native. Spanish: native. English: proficient. Italian: proficient. French: basic.

Programming

Languages: Python, C, Java.

Mathematical programming: Mathematica, SageMath, R.