David Fisac

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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,	Sept 2019 – Sept 2020
Under the supervision of Marie-Amélie Lawn.	
Université du Luxembourg - Universitat Autònoma de Barcelona, PhD in Mathematics,	Feb 2021 – Jan 2025
Under the co-supervision of Florent Balacheff and Hugo Parlier.	

(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,	Accepted
with Florent Balacheff, J. Topol. Anal. (2025),	
arXiv:2311.03182.	

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* .
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.	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.