

Víctor J. Maciá

EXPERIENCE

Ph.D Researcher (FPI-UAM)

Contratos Predoctorales Formación de Personal Investigador (FPI-UAM)
Universidad Autónoma de Madrid (UAM)
2021 - 2024

Teaching Assistant (TA)

Washington University in St. Louis
August (2019) – July (2021)

Summer Instructor

Washington University in St. Louis
July (2020) – mid-August (2020)

Research Assistant

Associated to a National Science Foundation Project
Washington University in St. Louis
July (2020) – August (2020)

Research Assistant

Universidad Autónoma de Madrid (UAM)
Advisors: José L. Fernández
Topics: Analytic Combinatorics, Complex Analysis and Probability
November (2018) – January (2019)

EDUCATION

Ph.D in Mathematics

Universidad Autónoma de Madrid (Spain)
Advisor: José L. Fernández, Daniel Faraco.
Defense October 4th 2024
2021 - 2024

Master's degree (A.M.) in Mathematics

Washington University in St. Louis (U.S.A)
August (2019) - January (2021)
Description: Two years master's degree. I also qualified/passed all the Qualifying Exams for the Ph.D in Mathematics during my first year. Cumulative GPA: 3.91/4.00 (coarse equivalence 9.8/10)

Master's degree (M.Sc) in Mathematics and Applications

Universidad Autónoma de Madrid (Spain)
Specialty: Introduction to Research
September (2017) - July (2018)
Mean Grade: 9.14/10

Bachelor's Degree (B.S) in Mathematics

Universidad de La Laguna (Spain)
September (2012) — March (2017)

Erasmus programme: Paris, France.

Université Pierre et Marie Curie (Paris VI - Sorbonne Universités)
September (2015) — June (2016)

TEACHING EXPERIENCE

Universidad Autónoma de Madrid

- **Mathematical Analysis II - Engineering** – (TA)
Weekly responsibilities: teaching practical/problem classes.
Spring 2023.
- **Calculus II - Engineering** – (TA)
Weekly responsibilities: teaching practical/problem classes.
Spring 2023.
- **Analysis I - Degree in Physics** – (TA)
Weekly responsibilities: teaching practical/problem classes (two different groups).
Fall 2022.
- **Mathematics - Degree in Environmental Sciences** – (TA)
Weekly responsibilities: teaching practical/problem classes (two different groups).
Fall 2021.
- **Applied Statistics - Degree in Human Nutrition and Dietetic** – (TA)
Weekly responsibilities: teaching practical/problem classes. (one group)
Fall 2021.

Washington University in St. Louis

- **Math 5046: Geometry/Topology II: Differential Topology** – (Grader)
Graduate Course. Weekly responsibilities: grading homework.
Spring 2021.
- **Math 470: Topics in Graph Theory: Analytic Combinatorics** – (Grader)
Weekly responsibilities: grading homework, 3 hours of Calculus Help Room (MOHR), grading some exams.
Spring 2021.
- **Math 233: Calculus III** – (TA - Assistant to the instructor)
Weekly responsibilities: 3 hours of class per week leading 3 different sections (classes where I taught and discussed about problems), 3 hours of Calculus Help Room Hours (MOHR), grading exams.
Fall 2020.
- **Math 2200: Elementary Probability and Statistics** – (Instructor)
Summer 2020.
- **Math 1011: Introduction to Statistics** – (Instructor)
Summer 2020.

PUBLICATIONS

3. Khinchin families, set constructions, partitions and exponentials.
WITH A. CANTÓN, P. FERNÁNDEZ AND J.L. FERNÁNDEZ
Mediterranean Journal of Mathematics - (2024)
<https://doi.org/10.1007/s00009-023-02579-9>
2. Khinchin Families and Hayman class.
WITH A. CANTÓN, P. FERNÁNDEZ AND J.L. FERNÁNDEZ
Computational Methods and Function Theory (CMFT) - (2021)
<https://doi.org/10.1007/s40315-021-00420-6>

1. A probabilistic proof of Meir-Moon theorem.
TEMat monográficos, 2 (2021): Proceedings of the 3rd BYMAT Conference,
pp. 7-10. ISSN: 2660-6003.
<https://temat.es/monograficos/article/view/vol2-p7>

PREPRINTS

4. Some Gaussianity criteria for Khinchin families
(In preparation)
3. Growth of Power Series with Nonnegative Coefficients, and Moments of Power Series Distributions.
WITH A. CANTÓN, P. FERNÁNDEZ AND J.L. FERNÁNDEZ
<https://arxiv.org/pdf/2401.14473> (Submitted)
2. The distance to the border of a random tree.
<https://arxiv.org/abs/2205.10645>
1. The Local Central Limit Theorem: Large Powers and Khinchin Families.
WITH J.L. FERNÁNDEZ
<http://arxiv.org/abs/2201.11746>

RESEARCH STAYS/VISITS

University of Washington (Seattle)
October 1st - December 1st. (2023) - 2 months

University of Helsinki
March 1st - May 31th (2023) - 3 months

Universitat de Barcelona (UB) - IMUB
June 7th - June 18th (2021) - Short visit

RESEARCH INTERNSHIPS

Severo Ochoa-ICMAT: Introduction to research
Cyclic vectors and the Dirichlet space
Instituto de Ciencias Matemáticas (ICMAT)
1 September – 26 October (2018)

Scholarship for the promotion of research in master's degrees
Beca para el fomento de la investigación en estudios de Máster
Departamento de Matemáticas - Universidad Autónoma de Madrid
Advisor: José L. Fernández
December (2017) – December (2018)

Summer Research Internship
The star formation in origin: Testing the deconvolution from observational effects
Institute of Astrophysics of the Canary Islands (IAC)
15 June – 31 August (2015)

TALKS

Some Gaussianity criteria for Khinchin families
Universidad Complutense de Madrid (UCM)
September, 2024

Some Gaussianity criteria for Khinchin families
Universidad Politécnica de Madrid (UPM)
July, 2024

Some Gaussianity criteria for Khinchin families

52th - St. Flour summer school

July, 2024

Khinchin Clans

ACOTCA 2024 - Universidad de La Laguna

June, 2024

The distance to the border of a random tree

GAFA seminar - Helsinki University

April, 2023

The distance to the border of a random tree

4th BYMAT conference

November, 2022

The distance to the border of a random tree

XVI Workshop Jóvenes Investigadores

Universidad Complutense de Madrid (UCM)

September, 2022

The distance to the border of a random tree

12th Cornell Probability Summer School

July, 2022

Khinchin families and applications

50th Saint Flour Summer School

July, 2022

Khinchin families and large powers

AMS Spring Eastern Sectional Meeting (formerly at Brown University)

March, 2021

GRANTS

UAM-Santander: Ayudas para la Movilidad de Jóvenes Investigadores

Funding for research stays - visit to Helsinki University.

Banco Santander - Universidad Autónoma de Madrid (UAM)

April 2023

Ph.D Grant FPI-UAM

Universidad Autónoma de Madrid (UAM)

2021 - 2024

Full tuition and TA stipend

Washington University in St. Louis

August, 2019 - July, 2021

IE Best Practices in Digital Education for Teachers 2nd call
Santander Becas
June, 2020

Summer Fellowship
Washington University in St. Louis
July - August, 2020

Severo Ochoa-ICMAT: Introduction to research
Instituto de Ciencias Matemáticas (ICMAT) – CSIC
September – October, 2018

Introduction to Research Master's Scholarship
Beca para el fomento de la investigación en estudios de Máster
Universidad Autónoma de Madrid
December 1, 2017 – October 31, 2018

PARTICIPATION IN COURSES **52th Saint Flour Probability Summer School**
Saint Flour - CNRS
July 1 - 13, 2024

12th Cornell Probability Summer School
Cornell - Ithaca NY
July 25 - August 5, 2022

50th Saint Flour Probability Summer School
Saint Flour - CNRS
July 11 - 23, 2022

Random Conformal Geometry
MSRI Graduate Summer School - Berkeley (online due to COVID19)
July 19 - 30, 2021

Workshop on Dynamics of Transcendental Maps
Centre de Recerca Matemàtica - CRM - (online due to COVID19)
April 19-23, 2021

Fifth Summer School in Complex Analysis and Operator Theory
Cullera - Valencia
Network: Spaces of functions and Operators between them
May 13 - 16, 2019

Atelier d'Analyse Harmonique 2019: Masterclass in Harmonic Analysis
Université Pierre et Marie Curie (Paris VI)
Courses: Attendant-based courses: 15 February – 16 February (2019)

Escuela JAE de Matemáticas (Summer School)
Instituto de Ciencias Matemáticas (ICMAT)
June 18 - 29, 2018

Workshop on Complex Analysis and Operator Theory
Course: Gaussian Analytic Functions
Costa Brava - Blanes
May 26 - 30, 2018

Escuela JAE de Matemáticas (Summer School)
Instituto de Ciencias Matemáticas (ICMAT)
June 26th - July 7th, 2017

**TEACHER
TRAINING
COURSES**

UC Spring 2021 Course Design Institute
Washington University in St. Louis - UC
mid-February – April, 2021

Teaching seminar II
Washington University in St. Louis
September – December, 2020

IE Best Practices in Digital Education for Teachers
IE Business school
June, 2020

Teaching seminar I
Washington University in St. Louis
January – May, 2020

UC Summer 2020 Online Faculty Training
Washington University in St. Louis - UC
May 18th – June 5th, 2020

**ATTENDANCE
CONFERENCES**

Advanced Courses in Operator Theory and Complex Analysis (ACOTCA)
Universidad de La Laguna
June 24-28, 2024

Quasiconformal mappings, elliptic equations and beyond (Long Agapi Days)
Kari Astala's birthday conference
Instituto de Ciencias Matemáticas (ICMAT-UAM)
June 5th-7th, 2024

International Conference: Analysis in Tenerife
Universidad de La Laguna
December 14-15, 2023

Quasiworld Workshop
University of Helsinki
August 14-18, 2023

Introductory Workshop (Hybrid - Online attendance)

Program: The Analysis and Geometry of Random Spaces
Mathematics Science Research Institute (MSRI)
January 24-28, 2022

Connections Workshop (Hybrid - Online attendance)

Program: The Analysis and Geometry of Random Spaces
Mathematics Science Research Institute (MSRI)
January 19-21, 2022

2021 Spring Eastern Sectional Meeting

American Mathematical Society (online due to COVID19)
March 20-21, 2021

2021 Joint Mathematics Meetings

AMS/MMA (online due to COVID19)
January 6-9, 2021

3rd BYMAT conference

Universitat de València and Universitat Politècnica de València (online due to COVID19)
December 3rd, 2020

2nd Madrid Intl. Workshop on Operator Theory and Function Spaces

Universidad Autónoma de Madrid
January 23th, 2019

1st Madrid International Workshop on Operator Theory and Function Spaces

Universidad Autónoma de Madrid
October 16th, 2018

Advanced Courses in Operator Theory and Complex Analysis (ACOTCA)

University of Bologna
June 11 - 14, 2018

Workshop on Complex Analysis and Operator Theory

Blanes - Costa Brava
Network: Spaces of functions and operators between them
May 25 - 30, 2018

BYMAT: Bringing young mathematicians together

Instituto de Ciencias Matemáticas (ICMAT)
May 7-9, 2018

Harmonic Analysis in Winter

Instituto de Ciencias Matemáticas (ICMAT)
January 8-12, 2018

CONFERENCE ORGANIZATION **Quasiconformal mappings, elliptic equations and beyond (Long Agapi Days)**
Kari Astala's birthday conference
Instituto de Ciencias Matemáticas (ICMAT-UAM)
June 5th-7th, 2024

LANGUAGES English — Advanced (I previously lived and had a job in the U.S.)

- Course in Presentation Skills for Academic & Professional Settings
Washington University in St. Louis
Date: May 18th - June 5th (2020)
- B2 (CFE - Cambridge First Certificate in English)
Date: August (2017)

French — Operative (Erasmus in France - La Sorbonne - Paris VI)

- Francés A2.2 (Universidad de La Laguna - ULL)
Date: January - May (2016)

Spanish — Native

PROGRAMMING LANGUAGES Python, R, C++, MATLAB, L^AT_EX. (General programming skills)
You can access my GitHub here