

# Mauro ARTIGIANI

## PERSONAL DATA

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PLACE OF BIRTH: Rome, Italy  
NATIONALITY: Italian  
ADDRESS: Departamento de Matemáticas,  
Edificio 404, Oficina 326,  
Universidad Nacional de Colombia  
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## ACADEMIC POSITIONS

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2024– Profesor Asociado, **Departamento de Matemáticas**,  
Universidad Nacional de Colombia, Sede Bogotá, Colombia.  
2022–2024 Graduate School Director, **School of Engineering, Science and Technology**,  
Universidad del Rosario, Bogotá, Colombia.  
2020–2024 Profesor Principal, **School of Engineering, Science and Technology**,  
Universidad del Rosario, Bogotá, Colombia.  
2018–2019 Investigador postdoctoral, **Departamento de Matemáticas**, Universidad de los Andes,  
Bogotá, Colombia.  
2016–2018 Postdoctoral researcher, **Centro di Ricerca Matematica Ennio De Giorgi**, Scuola Normale  
Superiore, Pisa, Italy.

## EDUCATION

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2012–2016 Ph. D. in Mathematics, **University of Bristol**, Bristol, UK.  
Thesis: “*Some aspects of Diophantine approximation and ergodic theory of translation surfaces*”. Advisor: Prof. Corinna ULCIGRAI.  
2010–2012 Master of Science in MATHEMATICS **University of Rome “Sapienza”**, Rome.  
110/110 *cum laude* | Major: Algebra & Geometry.  
Thesis: “*Flat surfaces and the Veech dichotomy*”. Advisor: Prof. Gabriele MONDELLO.  
2007–2010 Bachelor of Science in MATHEMATICS **University of Rome “Sapienza”**, Rome.  
110/110 *cum laude* | Major: Pure Mathematics.  
Thesis: “*On conformal structures of surfaces*”. Advisor: Prof. Andrea SAMBUSETTI.

## GRANTS AND AWARDS

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2021 Beca de Estancia de Docencia e Investigación 2021-II.  
2021 Invited Professor, University of Pisa.  
2019 Structured Quartet Research Ensemble (SQuaRE), American Institute for Mathematics, *joint with* Anja Randecker, Chandrika Sadanand, Ferrán Valdez and Gabriela Weitze-Schmithüsen  
2012–2016 University of Bristol postgraduate Scholarship  
2011–2012 Student in the “**Master Excellence Path**” in Mathematics at the University of Rome “Sapienza”.  
2008–2010 Student in the “**Excellence Path**” in Mathematics at the University of Rome “Sapienza”.

## PUBLICATIONS AND PREPRINTS

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1. Renormalization for Bruin-Troubetzkoy ITMs.  
*joint with* Pascal Hubert *and* Alexandra Skripchenko. *preprint*. [arXiv](https://arxiv.org/abs/2308.12345).

2. Realizing groups as symmetries of infinite translation surfaces.  
*joint with* Anja Randecker, Chandrika Sadanand, Ferrán Valdez *and* Gabriela Weitze-Schmithüsen.  
*preprint.* [arXiv](#).
3. On rigidity properties of time-changes of unipotent flows.  
*joint with* Livio Flaminio *and* Davide Ravotti. To appear in *Annali della Scuola Normale Superiore di Pisa, Classe di Scienze*. [Preliminary journal version.](#) [arXiv](#).
4. A note on double rotations of infinite type.  
*joint with* Charles Fougerson, Pascal Hubert *and* Alexandra Skripchenko. *Transactions of the Moscow Mathematical Society*, **82** (2021), 157–172. [Journal](#); [arXiv](#).
5. Octagonal continued fraction and diagonal changes.  
*Rendiconti dell'Istituto di Matematica dell'Università di Trieste*, **53** (2021), N. 9, 1–28. [Journal](#); [arXiv](#)
6. Persistent Hall rays for Lagrange spectra at cusps of Riemann surfaces.  
*joint with* Luca Marchese *and* Corinna Ulcigrai. *Ergodic theory and Dynamical systems*, **40** (2020), 2017–2072. [Journal](#); [arXiv](#).
7. Exceptional ergodic directions in Eaton lenses.  
*Israel Journal of Mathematics*, **220** (2017), 29–56. [Journal](#); [arXiv](#).
8. The Lagrange spectrum of a Veech surface has a Hall ray.  
*joint with* Luca Marchese *and* Corinna Ulcigrai. *Groups, Geometry, and Dynamics*, **10** (2016), 1287–1337. [Journal](#); [arXiv](#).

## TALKS

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| OCTOBER 2024   | <i>Dynamical Systems Seminar</i> , Higher School of Economics, Moscow, Russia.  |
| OCTOBER 2024   | <i>Geometry and Topology Seminar</i> , Higher School of Economics, Moscow, Russia.  |
| JUNE 2024      | <i>Dynamical Systems Seminar</i> , CRM Ennio De Giorgi, Scuola Normale Superiore, Pisa, Italy.  |
| NOVEMBER 2023  | <i>Colloquium talk</i> , Semana de las Ciencias, Universidad Distrital Francisco José de Caldas, Bogotá, Colombia.                    |
| OCTOBER 2023   | <i>Dynamical Systems Seminar</i> , CRM Ennio De Giorgi, Scuola Normale Superiore, Pisa, Italy.  |
| JUNE 2023      | <i>Semi-plenary talk</i> , XXIII Congreso Colombiano de Matemáticas, UPTC, Tunja, Colombia.   |
| DECEMBER 2022  | <i>Combinatorial and Geometric Approaches on Dynamics</i> , Centro de Modelamiento Matemático, Universidad de Chile, Santiago, Chile. |
| OCTOBER 2022   | <i>Colloquium talk</i> , Universidad de Los Andes, Bogotá, Colombia.  |
| JUNE 2022      | <i>Courant Institute Dynamical Systems Seminar</i> , New York University, USA.  |
| JUNE 2021      | <i>Ergodic Theory Workshop</i> , University of North Carolina at Chapel Hill, USA.  |
| JUNE 2021      | <i>DinAmici</i> , Italy, <a href="#">recording</a> .  |
| MARCH 2021     | <i>Colloquium talk</i> , Universidad Nacional de Colombia, Bogotá, Colombia.  |
| SEPTEMBER 2019 | <i>Colloquium talk</i> , Pontificia Universidad Javeriana, Bogotá, Colombia.  |
| SEPTEMBER 2019 | <i>Colloquium talk</i> , Universidad Nacional de Colombia, Bogotá, Colombia.  |
| JUNE 2019      | <i>Dynamical Systems Seminar</i> , CRM Ennio De Giorgi, Scuola Normale Superiore, Pisa, Italy.  |
| OCTOBER 2018   | <i>Colloquium talk</i> , Universidad de Los Andes, Bogotá, Colombia.  |
| FEBRUARY 2018  | <i>Workshop Around Dynamical Systems</i> , Udine, Italy.  |
| DECEMBER 2017  | <i>Dynamical Systems Seminar</i> , Institut de Mathématiques de Marseille, France.  |
| NOVEMBER 2017  | <i>Horowitz Seminar</i> , Tel Aviv University, Israel.  |
| OCTOBER 2017   | <i>Colloquium talk</i> , Universidad de Los Andes, Bogotá, Colombia.  |
| AUGUST 2017    | <i>Dynamics in Number Theory and Geometry</i> , Fields Institute, Kingston, Canada.   |
| JUNE 2017      | <i>Workshop on Moduli Spaces</i> , SkolTech & HSE, Moscow, Russia.  |
| NOVEMBER 2016  | <i>Prima Giornata DinAmica</i> . Gran Sasso Science Institute, L'Aquila, Italy.   |
| FEBRUARY 2016  | <i>Seminar at the Abdus Salam International Centre for Theoretical Physics</i> . Trieste, Italy.                                      |
| NOVEMBER 2015  | <i>Simons workshop on Translation surfaces and Dynamics</i> . Bedlewo, Poland.  |

## TALKS (CONTINUED)

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- JULY 2015 *School: "Dynamics & Geometry in Teichmüller Space".* Marseille, France. *(contributed)*  
JUNE 2015 *DinAmici IV*, conference of young Italian dynamicist. Corinaldo, Italy.  
FEBRUARY 2015 *Ergodic Theory and Dynamical Systems seminar.* Warwick University, UK.  
OCTOBER 2014 *Ergodic Theory and Dynamical Systems seminar.* University of Bristol, UK. *(contributed)*

## TEACHING

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- 2024-I Teoría de la Computación and Álgebra Abstracta y Codificación.  
2023-II Teoría de la Computación and Álgebra Abstracta y Codificación.  
2023-I Teoría de la Computación and Álgebra Abstracta y Codificación.  
2022-II Teoría de la Computación and Álgebra Abstracta y Codificación.  
2022-I Lógica, Teoría de Números y Conjuntos, Álgebra Abstracta y Codificación and Geometría Diferencial y Computacional.  
2021-II Teoría de la Computación, and Geometría Diferencial y Computacional.  
June 2021 Graduate course on Translation Surfaces, Ph.D. program University of Pisa.  
2021-I Lógica, Teoría de Números y Conjuntos, and Cálculo 2.  
2020-II Teoría de la Computación, and Álgebra Abstracta y Codificación.  
2020-I Lógica, Teoría de Números y Conjuntos, and Álgebra Abstracta y Codificación.  
2019-II Cálculo diferencial and Teoría Ergódica.  
2019-I Cálculo integral con ecuaciones diferenciales and Introducción a sistemas dinámicos.  
2018-II Cálculo integral con ecuaciones diferenciales.  
2017–2018 Dynamical systems & Ergodic Theory (*shared*).  
2014–2016 Pure Mathematics subjects first year tutorials.  
2013 Marker for "Ergodic Theory and Dynamical Systems".

## ADVISING

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Daniel Pallejá López Master student, Universidad de los Andes, 2018–2020.

## CONFERENCES AND MEETING ORGANISATION

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- 2019 Weekly Colloquium Seminar, Universidad de los Andes, Bogotá, Colombia.  
2018 [From order to chaos](#), CRM Ennio De Giorgi, Pisa.  
2017–2018 [Dynamical Systems seminar](#), with Paolo Giulietti.  
2014 *MINGLE*, University of Bristol, UK.  
MINGLE is a one day meeting to welcome the new PhD and Master students at the University of Bristol. I was one of the five organisers and approximately 50 people were present.

## OUTREACH

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[Google, las Matemáticas, y los Sistemas Dinámicos](#) (YouTube video interview)

## SERVICE

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Reviewer for [zbMATH Open](#).

## LANGUAGES

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ITALIAN: Native  
ENGLISH: Fluent  
SPANISH: Fluent