# Mauro Artigiani

# PERSONAL DATA

Rome, Italy PLACE OF BIRTH: NATIONALITY: Italian

> Departamento de Matemáticas. ADDRESS:

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# **ACADEMIC POSITIONS**

Profesor Asociado, Departamento de Matemáticas. 2024-Universidad Nacional de Colombia, Sede Bogotá, Colombia.

Graduate School Director, School of Engineering, Science and Technology, 2022-2024 Universidad del Rosario, Bogotá, Colombia.

Profesor Principal, School of Engineering, Science and Technology, 2020-2024 Universidad del Rosario, Bogotá, Colombia.

2018-2019 Investigador postdoctoral, Departamento de Matemáticas, Universidad de los Andes, Bogotá, Colombia.

Postdoctoral researcher, Centro di Ricerca Matematica Ennio De Giorgi, Scuola Normale 2016-2018 Superiore, Pisa, Italy.

#### EDUCATION

Ph. D. in Mathematics, University of Bristol, Bristol, UK. 2012-2016

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**

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

#### PUBLICATIONS AND PREPRINTS

1. Veech groups of covers of the Chamanara surface. joint with Anja Randecker, Chandrika Sadanand, Ferrán Valdez and Gabriela Weitze-Schmithüsen. preprint. arXiv.

- 2. Renormalization for Bruin-Troubetzkoy ITMs. *joint with* Pascal Hubert *and* Alexandra Skripchenko. *preprint.* arXiv.
- 3. Realizing groups as symmetries of infinite translation surfaces. *joint with* Anja Randecker, Chandrika Sadanand, Ferrán Valdez *and* Gabriela Weitze-Schmithüsen. *preprint*. arXiv.
- 4. 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.
- 5. A note on double rotations of infinite type.

  joint with Charles Fougeron, Pascal Hubert and Alexandra Skripchenko. Transactions of the Moscow
  Mathematical Society, 82 (2021), 157–172. Journal; arXiv.
- 6. Octagonal continued fraction and diagonal changes. Rendiconti dell'Istituto di Matematica dell'Università di Trieste, 53 (2021), N. 9, 1-28. Journal; arXiv
- 7. 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.
- 8. Exceptional ergodic directions in Eaton lenses. *Israel Journal of Mathematics*, **220** (2017), 29–56. Journal; arXiv.
- 9. 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**

| OCTOBER 2024   | Dynamical Systems Seminar, Higher School of Economics, Moscow, Russia.                 |  |  |  |
|----------------|----------------------------------------------------------------------------------------|--|--|--|
| OCTOBER 2024   | Geometry and Topology Seminar, Higher School of Economics, Moscow, Russia.             |  |  |  |
| June 2024      |                                                                                        |  |  |  |
| NOVEMBER 2023  |                                                                                        |  |  |  |
|                | Bogotá, Colombia.                                                                      |  |  |  |
| OCTUBER 2023   | Dynamical Systems Seminar, CRM Ennio De Giorgi, Scuola Normale Superiore, Pisa, Italy. |  |  |  |
| June 2023      | Semi-plenary talk, XXIII Congreso Colombiano de Matemáticas, UPTC, Tunja, Colombia.    |  |  |  |
| DECEMBER 2022  | Combinatorial and Geometric Approaches on Dynamics, Centro de Modelamiento             |  |  |  |
|                | Matemático, Universidad de Chile, Santiago, Chile.                                     |  |  |  |
| OCTOBER 2022   | Colloquium talk, Universidad de Los Andes, Bogotá, Colombia.                           |  |  |  |
| June 2022      | Courant Institute Dynamical Systems Seminar, New York University, USA.                 |  |  |  |
| June 2021      | Ergodic Theory Workshop, University of North Carolina at Chapel Hill, USA.             |  |  |  |
| June 2021      | DinAmicI, Italy, recording.                                                            |  |  |  |
| MARCH 2021     | Colloquium talk, Universidad Nacional de Colombia, Bogotá, Colombia.                   |  |  |  |
| SEPTEMBER 2019 | Colloquium talk, Pontificia Universidad Javeriana, Bogotá, Colombia.                   |  |  |  |
| SEPTEMBER 2019 | Colloquium talk, Universidad Nacional de Colombia, Bogotá, Colombia.                   |  |  |  |
| June 2019      | Dynamical Systems Seminar, CRM Ennio De Giorgi, Scuola Normale Superiore, Pisa, Italy. |  |  |  |
| OCTOBER 2018   | Colloquium talk, Universidad de Los Andes, Bogotá, Colombia.                           |  |  |  |
| FEBRUARY 2018  | Workshop Around Dynamical Systems, Udine, Italy.                                       |  |  |  |
| DECEMBER 2017  | Dynamical Systems Seminar, Institut de Mathématiques de Marseille, France.             |  |  |  |
| November 2017  | Horowitz Seminar, Tel Aviv University, Israel.                                         |  |  |  |
| OCTOBER 2017   | Colloquium talk, Universidad de Los Andes, Bogotá, Colombia.                           |  |  |  |
| AUGUST 2017    | Dynamics in Number Theory and Geometry, Fields Institute, Kingston, Canada.            |  |  |  |
|                |                                                                                        |  |  |  |

### TALKS (CONTINUED)

| JUNE 2017     | Workshop on Moduli Spaces, SkolTech & HSE, Moscow, Russia.                              |  |  |
|---------------|-----------------------------------------------------------------------------------------|--|--|
| ,             | Prima Giornata DinAmica. Gran Sasso Science Institute, L'Aquila, Italy.                 |  |  |
|               |                                                                                         |  |  |
|               | Simons workshop on Translation surfaces and Dynamics. Bedlewo, Poland.                  |  |  |
|               | School: "Dynamics & Geometry in Teichmüller Space". Marseille, France. (contributed)    |  |  |
|               | DinAmici IV, conference of young Italian dynamicist. Corinaldo, Italy.                  |  |  |
| FEBRUARY 2015 | Ergodic Theory and Dynamical Systems seminar. Warwick University, UK.                   |  |  |
| OCTOBER 2014  |                                                                                         |  |  |
| OCTOBER 2014  | Ergodic Theory and Dynamical Systems seminar. Offiversity of Briston, OK. (continuated) |  |  |

## TEACHING

| 2024-II | Fundamentos de Matemáticas, | Variable Compleja | y Matemáticas Básicas. |
|---------|-----------------------------|-------------------|------------------------|
|---------|-----------------------------|-------------------|------------------------|

- 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-l Lógica, Teoría de Números y Conjuntos, and Cálculo 2.
  - 2020-II Teoría de la Computación, and Álgebra Abstracta y Codificación.
  - 2020-l 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

Juliana Bermúdez Guzmán Undergraduate student, Universidad del Rosario, 2024-.

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

# CONFERENCES AND MEETING ORGANISATION

- 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**

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

#### SERVICE

Reviewer for zbMATH Open.

# LANGUAGES

ITALIAN: Native ENGLISH: Fluent SPANISH: Fluent