

Davide RAVOTTI

PERSONAL DATA

PLACE AND DATE OF BIRTH: Savigliano (CN), Italy | 02 August 1989
ADDRESS: School of Mathematical Sciences, Monash University
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SCIENTIFIC INTERESTS

Dynamical Systems and Ergodic Theory.

EDUCATION

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| 2018 | Ph.D. degree at the University of Bristol (Bristol, UK).
Supervisor: prof. Corinna Ulcigrai.
Thesis title: <i>Mixing via shearing in some parabolic flows</i> .
This thesis received a <i>Faculty of Science Commendation</i> . |
| 2014 | Diploma di Licenza of the Scuola Superiore of the University of Udine (Udine, Italy).
Final mark: 110/110 <i>cum laude</i> . |
| 2013 | Master degree in Mathematics, University of Udine (Udine, Italy).
Final mark: 110/110 <i>cum laude</i> . |
| 2011 | Bachelor degree in Mathematics, University of Udine (Udine, Italy).
Final mark: 110/110 <i>cum laude</i> . |

ACADEMIC POSITIONS

MAR. 2019-PRESENT	Research Fellow, Monash University (Melbourne, Australia).
SEP. 2018-MAR. 2019	Postdoctoral Assistant, University of Zürich (Zürich, Switzerland).
APR. 2018-AUG. 2018	Research Associate, University of Bristol (Bristol, UK).

PUBLICATIONS AND PREPRINTS

PREPRINTS:

- [9] D. Ravotti. Polynomial mixing for time-changes of unipotent flows. Submitted, 2020 ([arXiv:2011.11213](https://arxiv.org/abs/2011.11213)).
- [8] P. Giulietti, A. Hammerlindl, D. Ravotti. Quantitative global-local mixing for accessible skew products. Submitted, 2020 ([arXiv:2006.06539](https://arxiv.org/abs/2006.06539)).

PUBLISHED/ACCEPTED:

- [7] A. Avila, G. Forni, D. Ravotti, C. Ulcigrai. Mixing for smooth time-changes of general nilflows. *Adv. Math.*, to appear ([arXiv:1905.11628](https://arxiv.org/abs/1905.11628)).
- [6] D. Ravotti. Quantitative equidistribution of horocycle push-forwards of transverse arcs. *Enseign. Math.*, 66(1-2):135–150, 2020.
- [5] A. Kanigowski, D. Ravotti. Polynomial 3-mixing for smooth time-changes of horocycle flows. *Discrete Contin. Dyn. Syst.*, 40(9):5347–5371, 2020.
- [4] D. Ravotti. Parabolic perturbations of unipotent flows on compact quotients of $SL(3, \mathbb{R})$. *Comm. Math. Phys.*, 371(1):331–351, 2019.
- [3] D. Ravotti. Mixing for suspension flows over skew-translations and time-changes of quasi-abelian filiform nilflows. *Ergod. Theory Dyn. Syst.*, 39(12):3407–3436, 2019.
- [2] D. Ravotti. Quantitative mixing for locally Hamiltonian flows with saddle loops on compact surfaces. *Ann. Henri Poincaré*, 18(12):3815–3861, 2017.
- [1] G. Panti, D. Ravotti. Measures induced by units. *J. Symb. Log.*, 78(3):886–910, 2013.

OTHERS:

- [a] D. Ravotti. Mixing via shearing in some parabolic flows. Ph.D. thesis (*Faculty of Science Commendation*), University of Bristol, 2018.

SEMINARS

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| 09 MAR. 2021 | UNSW Pure Math Seminar (online seminar). |
| 08 OCT. 2020 | Vienna Ergodic Seminar (online seminar). |
| 02 JUL. 2020 | Sydney Dynamics Group (online seminar). |
| 23 APR. 2020 | University of Maryland (online seminar). |
| 22 APR. 2020 | Monash University (online seminar). |
| 05 DEC. 2019 | Conference “AustMS 2019” (Melbourne, Australia). |
| 23 SEP. 2019 | Conference “Smooth and Homogeneous Dynamics” (Bangalore, India). |
| 01 JUL. 2019 | Conference “Dynamics of Parabolic Flows” (Zürich, Switzerland). |
| 27 MAR. 2019 | Monash University (Melbourne, Australia). |
| 05 DEC. 2018 | Scuola Normale Superiore (Pisa, Italy). |
| 03 SEP. 2018 | Conference “Dynamics Days Europe” (Loughborough, UK). |
| 16 JAN. 2018 | Queen Mary University (London, UK). |
| 02 NOV. 2017 | Scuola Normale Superiore (Pisa, Italy). |
| 17 OCT. 2017 | University of Warwick (Coventry, UK). |
| 12 OCT. 2017 | University of Manchester (Manchester, UK). |
| 24 AUG. 2017 | Conference “Dynamics in Number Theory and Geometry” (Kingston, Canada). |
| 06 JUN. 2017 | Workshop “Modern Trends in the Ergodic Theory of Dynamical Systems” (Rome, Italy). |
| 23 MAR. 2017 | University of Bristol (Bristol, UK). |
| 11 JAN. 2017 | One-day Workshop on Dynamical Systems, ICTP (Trieste, Italy). |
| 10 JAN. 2017 | University of Udine (Udine, Italy). |

TEACHING AND OTHER ACTIVITIES

AT MONASH UNIVERSITY:

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| 2020/21 | Co-lecturer and tutor for the course <i>Metric spaces, Banach spaces, Hilbert spaces</i> . |
| 2019/20 | Tutor at the <i>Mathematics Learning Center</i> . |

AT THE UNIVERISTY OF ZÜRICH:

2019/20 Tutor for the course *Dynamical Systems and Ergodic Theory*.

AT THE ICTP SUMMER SCHOOL IN DYNAMICS:

JUL. 2018 Lecturer and tutor at the *ICTP Summer School in Dynamics* (lecture recording is available online).

AT THE UNIVERISTY OF BRISTOL:

2017/18 Tutor for the courses *Analysis 1* and *Foundations and Proof*.
Organiser of the Reading group in *Representation Theory of Semisimple Lie Groups*.

2016/17 Tutor for the courses *Analysis 1*, *Foundations and Proof*, and *Introduction to Geometry*.

Organiser of the *Pure postgraduates seminars*.

Organiser of the *ChaParDyn Reading group*.

2015/16 Tutor for the courses *Analysis 1* and *Linear Algebra and Geometry*.

Organiser of the *Pure postgraduates seminars*.

Organiser of the Reading group in *Teichmüller Theory*.

2014/15 Marker for the courses *Ergodic Theory and Dynamical Systems* and *Algebra II*.

PARTICIPATION IN SCHOOLS AND CONFERENCES

03-06 DEC. 2019	Conference “AustMS 2019” (Melbourne, Australia).
23 SEP.-04 OCT. 2019	Conference “Smooth and Homogeneous Dynamics” (Bangalore, India).
01-05 JUL. 2019	Conference “Dynamics of Parabolic Flows” (Zürich, Switzerland).
21 DEC. 2018	“Giornata DinAmica” (Rome, Italy).
03-07 SEP. 2018	Conference “Dynamics Days Europe” (Loughborough, UK).
10-16 JUN. 2018	Conference “Ergodic aspects of modern dynamics” (Bedlewo, Poland).
19-23 MAR. 2018	Symposium “Teichmüller Dynamics” (Warwick, UK).
21-25 AUG. 2017	Conference “Dynamics in Number Theory and Geometry” (Kingston, Canada).
05-09 JUN. 2017	Workshop “Modern Trends in the Ergodic Theory of Dynamical Systems” (Rome, Italy).
01-04 AUG. 2016	Conference “Young Researchers in Mathematics” (St. Andrews, UK).
27 JUN.-2 JUL. 2016	Workshop “Analytical Methods in Classical and Quantum Dynamical Systems” (Pisa, Italy).
21-24 MAR. 2016	Conference “BMC” (Bristol, UK).
22-28 NOV. 2015	Simons semester workshop “Ergodic Theory of Dynamical Systems” (Bedlewo, Poland).
29 JUN.-3 JUL. 2015	Workshop “Group representations in Dynamics and Geometry” (Luminy, France).
22-25 JUN. 2015	Workshop “DinAmici – Italian people in Dynamics” (Corinaldo, Italy).
13-17 APR. 2015	LMS-CMI Research School “Statistical Properties of Dynamical Systems” (Loughborough, UK).
4-14 JUN. 2014	ICTP-NLAGA School “Dynamical Systems and Ergodic Theory” (Mbour, Senegal).

SERVICE TO THE COMMUNITY

Referee for: *Inventiones Mathematicae*, *Ergodic Theory and Dynamical Systems*, *Discrete and Continuous Dynamical Systems*.

Reviewer for MathSciNet.

LANGUAGE SKILLS

ITALIAN (native language).

ENGLISH (full professional proficiency).

FRENCH (intermediate).

SPANISH (basic).

JAPANESE (basic).