

Davide RAVOTTI

PERSONAL DATA

PLACE AND DATE OF BIRTH: Savigliano (CN), Italy | 02 August 1989
ADDRESS: Faculty of Mathematics, Universität Wien
9 Oskar Morgenstern-Platz 1, 1090 Wien Austria
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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

JUN. 2021-PRESENT	Postdoctoral Assistant, Universität Wien (Wien, Austria).
MAR. 2019-MAY 2021	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:

- [10] D. Ravotti. Asymptotics and limit theorems for horocycle ergodic integrals à la Ratner (with an appendix by Emilio Corso). Submitted, 2021 ([arxiv:2107.02090](https://arxiv.org/abs/2107.02090)).

PUBLISHED/ACCEPTED:

- [9] P. Giulietti, A. Hammerlindl, D. Ravotti. Quantitative global-local mixing for accessible skew products. *Ann. Henri Poincaré*, to appear ([arXiv:2006.06539](https://arxiv.org/abs/2006.06539)).

- [8] D. Ravotti. Polynomial mixing for time-changes of unipotent flows. *Ann. Sc. Norm. Super. Pisa Cl. Sci. (5)*, to appear ([arXiv:2011.11213](#)).
- [7] A. Avila, G. Forni, D. Ravotti, C. Ulcigrai. Mixing for smooth time-changes of general nilflows. *Adv. Math.*, to appear ([arXiv: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

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:

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

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).