# Davide RAVOTTI

## PERSONAL DATA

PLACE AND DATE OF BIRTH: Savigliano (CN), Italy | 02 August 1989

ADDRESS: School of Mathematical Sciences, Monash University

9 Rainforest Walk, Clayton Campus, Victoria 3800 Australia

NATIONALITY: Italian

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#### **EDUCATION**

2018 | Ph.D. degree at the University of Bristol (Bristol, UK).

Supervisor: prof. Corinna Ulcigrai.

Thesis title: Mixing via shearing in some parabolic flows. This thesis received a Faculty of Science Commendation.

2014 | Diploma di Licenza of the Scuola Superiore of the University of Udine

(Udine, Italy).

Final mark: 110/110 cum laude.

2013 | Master degree in Mathematics, University of Udine (Udine, Italy).

Thesis advisor: prof. Giovanni Panti.

Thesis title: Misiurewicz parameters for the quadratic family (in Italian).

Final mark: 110/110 cum laude.

2011 Bachelor degree in Mathematics, University of Udine (Udine, Italy).

Thesis advisor: prof. Giovanni Panti.

Thesis title: Generalized Farey enumerations (in Italian).

Final mark: 110/110 cum laude.

2008 | Scientific high school degree at Liceo Scientifico "G. Ancina" (Fossano,

Italy).

Final mark: 100/100.

## **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).

## **SEMINARS**

05 DE	c. 2019	Conference	"AustMS 2019"	(Melbourne,	Australia).
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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).

# PARTICIPATION IN SCHOOLS AND CONFERENCES

03-06 DEC. 2019	Conference "AustMS 2019" (Melbourne, Australia).
23 SEP04 OCT. 2019	Conference "Smooth and Homogeneous Dynamics" (Bangalore, In-
	dia).
01-05 JUL. 2019	Conference "Dynamics of Parabolic Flows" (Zürich, Switzerland).
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 Sys-
	tems" (Rome, Italy).
01-04 AUG. 2016	Conference "Young Researchers in Mathematics" (St. Andrews, UK).
27 Jun2 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 Jun3 Jul. 2015	Workshop "Group representations in Dynamics and Geometry" (Lu-
	miny, 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 Sys-
	tems" (Loughborough, UK).
4-14 Jun. 2014	ICTP-NLAGA School "Dynamical Systems and Ergodic Theory"
	(Mbour, Senegal).

# TEACHING AND OTHER ACTIVITIES

JUL. 2018	Tutor at the ICTP Summer School in Dynamics.		
2017/18	Tutor for the first year courses <i>Analysis 1</i> and <i>Foundations and Proof.</i>		
	Organiser of the Reading group in Representation Theory of Semisimple Lie		
	Groups.		
2016/17	Tutor for the first year courses <i>Analysis 1</i> and <i>Foundations and Proof.</i>		
	Tutor for the second year course <i>Introduction to Geometry</i> .		
	Organiser of the <i>Pure postgraduates seminars</i> .		
	Organiser of the ChaParDyn Reading group.		
2015/16	Tutor for the first year 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.		
2014/17	marker for the courses Ergodic Theory and Dynamical Systems and Angeora II.		

# SERVICE TO THE COMMUNITY

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

# LANGUAGE SKILLS

ITALIAN (native language). ENGLISH (fluent). FRENCH (intermediate). JAPANESE (basic).

## PUBLICATIONS AND PREPRINTS

- [7] D. Ravotti. Quantitative equidistribution of horocycle push-forwards of transverse arcs. Submitted, 2019 (arXiv:1910.03187).
- [6] A. Kanigowski, D. Ravotti. Polynomial 3-mixing for smooth time-changes of horocycle flows. Submitted, 2019 (previous version *arxiv:1909.08799*).
- [5] A. Avila, G. Forni, D. Ravotti, C. Ulcigrai. Mixing for smooth time-changes of general nilflows. Submitted, 2019 (arXiv:1905.11628).
- [4] D. Ravotti. Parabolic perturbations of unipotent flows on compact quotients of  $SL(3,\mathbb{R})$ . *Comm. Math. Phys.*, 371(1):331–351, 2019.
- 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:

D. Ravotti. Mixing via shearing in some parabolic flows. Ph.D. thesis (*Faculty of Science Commendation*), University of Bristol, 2019.

20 December 2019.