

Curriculum vitae of Corinna Ulcigrai

Date of birth: January 3, 1980, Trieste (Italy)
Sex: Female
Personal: Married to Alexander Gorodnik, 2 children
Citizenship: Italian and British
Work Address: Institute für Mathematik, University of Zürich
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Academic Qualifications

2002 - 2007 *Princeton University, Department of Mathematics*
Degree: Ph.D. (June 2007)
Thesis Advisor Prof. Ya. G. Sinai (Abel Prize 2014)

1998 - 2002 *Scuola Normale Superiore and University of Pisa*
Degrees: Scuola Normale "Diploma" (70/70 *cum laude*, July 2002)
Laurea in Mathematics (110/110 *cum laude*, June 2002)
Thesis Advisor: Prof. S. Marmi (Scuola Normale Superiore).

Academic Positions

Aug 2018–to present *University of Zürich,*
Full Professor at the *Institute for Mathematics*

Aug 2015–July 2019 *University of Bristol,*
Professor in Pure Mathematics

Aug 2013–Jul 2015 *University of Bristol,*
Reader in Pure Mathematics

Aug 2007–Jul 2013 *University of Bristol,*
Lecturer and Research Fellow

Jan 2008–Apr 2008 *Institute for Advanced Studies, Princeton NJ, USA,*
Postdoctoral Member, Petronio Fellowship

Aug 2007–Dec 2007 *MSRI, Berkeley CA, USA*
Postdoctoral Member, MSRI Fellowship

Awards and Honors

- SNSF Consolidator Grant recipient (2022 call)
- International Congress of Mathematics invited Speaker, Dynamics Session, 2022
- Michael Brin Prize for Dynamical Systems 2020
- Elected Member of the Accademia Nazionale delle Scienze, detta dei XL (2020)
- Royal Society Wolfson Research Merit Award 2017
- Philip Leverhulme Prize 2014, awarded by the Leverhulme Trust
- Whitehead Prize 2013, awarded by the London Mathematical Society
- ERC Starting Grant holder, from January 2014

- European Mathematical Society Prize (2012), awarded at the 12th European Mathematical Congress
- RCUK Fellowship (UK Research Council) (2007-2012)
- 2007 Clay Liftoff Fellowship
- Centennial Fellowship from the Graduate School at Princeton University (2002-2007)

Grants

- SNSF Consolidator Grant (Swiss National Science Foundation ERC Consolidator replacement scheme) Consolidator Grant Principle Investigator
New Frontiers of Renormalization, January 2024 - December 2028.
- SNSF (Swiss National Science Foundation) Project Grant Principle Investigator
Ergodic and spectral properties of surface flows, September 2020 - August 2024.
- ERC (European Research Council) Starting Grant Principle Investigator
Chaos in parabolic dynamics: mixing, rigidity and spectra, January 2014 - December 2018.
- Philip Leverhulme Prize Research Fund holder, January 2016 - December 2018.
- EPSRC (UK Research Council) Grant EP/I019030/1 Principle Investigator,
Non generic Teichmüller dynamics, May 2011 - April 2013.
- RCUK Fellowship holder (UK Research Council),
Dynamics and Number Theory, August 2007- July 2012.

Publication List

- [1] Mixing for smooth time-changes of general nilflows,
joint work with A. Avila, G. Forni and D. Ravotti
Advances in Mathematics 385 (2021), Paper No. 107759 (65 pages)
- [2] Slow chaos in surface flows,
Bollettino Unione Matematica Italiana 14, 231-255 (2021)
- [3] Singularity of the spectrum for smooth area-preserving flows in genus two,
and translation surfaces well approximated by cylinders,
joint work with J. Chaika, K. Frączek and A. Kanigowski
Communications in Mathematical Physics 381 (2021), 1369-1407
- [4] On disjointness properties of some parabolic flows,
joint work with A. Kanigowski and M. Lemanczyk,
Inventiones Mathematicae 221 (2020), 1–111.
- [5] On Roth type conditions, duality and central Birkhoff sums for i.e.m.,
joint work with S. Marmi and J.-C. Yoccoz,
in *Some aspects of the theory of dynamical systems: a tribute to Jean-Christophe Yoccoz*,
Asterisque 416 (2020), Vol. 2, 65–132.
- [6] Persistent Hall rays for Lagrange spectra at cusps of Riemann surfaces,
joint work with M. Artigiani, L. Marchese,
Ergodic Theory and Dynamical Systems 40 (2020), no. 8, 2017–2072.

- [7] Cutting sequences on Bouw-Möller surfaces: an S-adic characterization.
joint work with D. Davis and I. Pasquinelli,
Annales scientifiques de l'École normale supérieure 52 (2019), no. 4, 927–1023.
- [8] Multiple mixing and parabolic divergence in smooth area-preserving flows
on higher genus surfaces, *joint work with* A. Kanigowski, J. Kulaga-Przymus,
Journal of the European Mathematical Society (JEMS) 21 (2019), no. 12, 3797–3855.
- [9] Mathematical billiards, chaos and "infinite" doughnuts: why mathematicians "play" billiards,
from polygons to the Ehrenfest model. (Italian, survey article),
Mat. Cult. Soc. Riv. Unione Mat. Ital. (I) 3 (2018), no. 1, 13–30.
- [10] A temporal Central Limit Theorem for real-valued cocycles over rotations.
joint work with M. Bromberg,
Annales de l'Institut Henri Poincaré (B) Probabilités et Statistiques 54 (2018), no. 4, 2304–2334.
- [11] Genericity on curves and applications: pseudo-integrable billiards,
Eaton lenses and gap distributions, *joint work with* K. Frączek and R. Shi,
Journal of Modern Dynamics, vol. 12 (2018), pp. 55–122
- [12] The Lagrange spectrum of some square-tiled surfaces.
joint work with P. Hubert, S. Lelièvre and L. Marchese,
Israel Journal of Mathematics 225 (2018), no. 2, 553–607.
- [13] The Lagrange spectrum of a Veech surface has a Hall ray.
joint work with M. Artigiani and L. Marchese,
Groups, Geometry and Dynamics, Vol. 10, no. 4 (2016), pp. 1287–1337
- [14] Lagrange Spectra in Teichmueller Dynamics via renormalization,
joint work with P. Hubert and L. Marchese,
Geometric and Functional Analysis, Vol. 25, no. 2 (2015), 180–255.
- [15] Diagonal changes for surfaces in hyperelliptic components,
joint work with V. Delecroix,
Geometriae Dedicata, Vol. 176 (2015), 117–174,
- [16] Ergodic directions for billiards in a strip with periodically located obstacles,
joint work with K. Frączek,
Communications in Mathematical Physics, Vol. 327, no. 2 (2014), 643–663.
- [17] Non-ergodic \mathbb{Z} -periodic billiards and infinite translation surfaces,
joint work with K. Frączek,
Inventiones Mathematicae, Vol. 197, no. 2 (2014), 241–298.
- [18] Shearing and Mixing in Parabolic Flows,
in Proceedings of the 6th European Congress in Mathematics
EMS Publishing House (2014), 691–705.
- [19] Ergodic properties of infinite extensions of area-preserving flows
joint work with K. Frączek,
Mathematische Annalen, Vol. 354 (2012), 1289–1367.
- [20] Time-Changes of Horocycle Flows,
joint work with G. Forni,
Journal of Modern Dynamics Vol. 6, no. 2 (2012), 251–273.

- [21] Mixing for time-changes of Heisenberg nilflows,
joint work with A. Avila and G. Forni,
Journal of Differential Geometry, Vol. 89, no. 3 (2011), 369–410
- [22] Absence of mixing in area-preserving flows on surfaces,
Annals of Mathematics, Vol. 173, no. 3 (2011), 1743–1778.
- [23] Beyond Sturmian sequences: coding linear trajectories in the regular octagon,
joint work with J. Smillie,
Proceedings of the London Mathematical Society Vol. 102, no. 2 (2011), 291–340.
- [24] Geodesic flow on the Teichmüller disk of the regular octagon, cutting sequences
and octagon continued fractions maps,
joint work with J. Smillie,
in *Dynamical numbers: interplay between dynamical systems and number theory*,
AMS Contemporary Mathematics, vol. 532 (2010), pp. 29-65.
- [25] Estimates from above of certain double trigonometric sums,
joint work with Ya. G. Sinai
Journal of Fixed Point Theory and Applications. Vol. 6, no. 1 (2009), 93 - 113.
- [26] Weak Mixing for Logarithmic Flows over Interval Exchange Transformations,
Journal of Modern Dynamics, Vol. 3, no. 1 (2009), 35–49.
- [27] A Limit Theorem for Birhoff sums of non-Integrable Functions over Rotations,
joint work with Ya. G. Sinai,
in *Probabilistic and Geometric Structures in Dynamics*,
Contemporary Mathematics Series, American Mathematical Society, (2008)
- [28] A Renewal-type Limit Theorem for Continued Fractions and the Gauss Map,
joint work with Ya. G. Sinai
Ergodic Theory and Dynamical Systems Vol.28, no. 2 (2008), 643–655.
- [29] Mixing for Suspension Flows over Interval Exchange Transformations,
Ergodic Theory and Dynamical Systems Vol.27, no. 3 (2007) 991–1035.
- [30] On Ergodic Properties of Flows on Surfaces.
Ph.D. Thesis, *Princeton University*, (2007)
- [31] A condition for Continuous Spectrum of an Interval Exchange Transformation,
joint work with A. Bufetov and Ya. G. Sinai,
American Mathematical Society Translations Vol. 217 (2006), 23-35.
- [32] Weak Mixing in Interval Exchange Transformations of Periodic Type,
joint work with Ya. G. Sinai
Letters in Mathematical Physics, Vol. 74, no. 2 (2005), 111-133.

Prepublications

- [33] A priori bounds for GIETs, affine shadows and rigidity of foliations in genus 2,
joint work with S. Ghazouani, *Preprint arXiv:2106.03529* (96 pages)

- [34] On the asymptotic growth of Birkhoff integrals for locally Hamiltonian flows, and ergodicity of their extensions,
joint work with K. Frączek, Preprint arXiv:2112.05939 (59 pages)
- [36] Dynamics and 'arithmetics' of higher genus surface flows,
(Proceedings of the International Congress of Mathematicians 2022),
Preprint arXiv:2207.06404 (23 pages)
- [37] Affine IETs with a singular conjugacy to an IET,
joint work with F. Trujillo, Preprint arXiv:2210.14202 (23 pages)
- [38] Ergodicity of explicit logarithmic cocycles over IETs and ergodicity of their extensions,
joint work with P. Berk and F. Trujillo Preprint arXiv:2210.16343 (19 pages)

Research supervision (graduate students and postdoctoral research assistant)

- Phd Supervisor of *Yuriy Tamarkin*, Phd Expected in 2026
- Phd Supervisor of *Guido Marinoni*, Phd Expected in 2024
- Phd Supervisor of *Mauro Artigiani*, Phd Defence April 2016,
(*at present*: Assistant Professor at the University of Los Andes)
- Phd (and 6 months Postdoctoral) Supervisor of *Davide Ravotti*, Phd Defence June 2018
(postdoc in Zuerich Sep 2018 to Feb 2019)
(*at present*: Junior Position at the University of Vienna)
- Posdoctoral supervisor of Dr *Jonguk Yang* (Sep 2022-present)
(Phd from U. of Toronto, Canada)
- Posdoctoral supervisor of Dr *Hao Wu* (Sep 2022-present)
(Phd from Jussieu, Paris, France)
- Posdoctoral supervisor of Dr *Frank Trujillo* (Sep 2020-present)
(Phd from Jussieu, Paris, France)
- Posdoctoral supervisor of Dr *Prezemeslaw Berk* (Feb 2018-Aug 2018, Sep 2020-present)
(Phd from Torun, Poland)
- Posdoctoral supervisor of Dr *Ofir David* (Sep 2018-Aug 2019)
(Phd from Technion, Haifa, Israel)
- Posdoctoral supervisor of Dr *Liviana Palmisano*, (Sep 2016 to Aug 2017)
(*at present*: lecturer at Durham University)
- Posdoctoral supervisor of Dr *Anton Solomko* (Sep 2014 to Aug 2016)
(Phd from Institute for Low Temperature Physics and Engineering, Ukraine)
after: Postdoctoral Position at Centro De Giorgi, Pisa, Italy
- Posdoctoral supervisor of Dr *Michael Bromberg* (Nov 2015-Jul 2019)
(Phd from Tel Aviv University, Israel, *after*: permanent position at AI Research Lab)

Editorial Responsibilities

- Member of the Editorial Board of *Inventiones Mathematicae* (from Sep 2022 to present);
- Member of the Editorial Board of *Journal of Modern Dynamics* (from Nov 2017 to present);
- Member of the Editorial Board of *Geometriae Dedicata* (from Sep 2018 to Dec 2021);
- Member of the Editorial Board of the *Lecture Notes of the Unione Matematica Italiana*, edited by Springer (from Jan 2013 to present)
- Member of the Editorial Advisory Board of the *Bullettin of the Unione Matematica Italiana*, (from Oct 2019 to present)
- Member of the Editorial Advisory Board of the London Mathematical Society publications:
 - *Bullettin of the London Mathematical Society*,
 - *Journal of the London Mathematical Society*,
 - *Proceedings of the London Mathematical Society*,
 - *Transactions of the London Mathematical Society*;
 (from Jan 2014 to Dec 2018)

Board membership

- Member of the Advisory Board of Science Lab UZH and Science Exploratorium UZH (from 2021)
- Member of the Scientific Committee of the Mathematisches Forschungsinstitut Oberwolfach (from 2021) (MFO Wissenschaftliche Kommission, organ of the Gesellschaft für Mathematische Forschung)
- Member of EMS/EWM Scientific Panel (European Mathematical Society/European Women in Mathematics joint panel)
- International member of the *Scientific Advisory Committee* of the Institute for Theoretical Studies (ITS) of ETH Zürich (ITS) (from Sep 2019)
- Member of the board of the Zürich Graduate School in Mathematics (from Sep 2018)
- Member of the Equal Opportunity Committee of SwissMAP (Mathematics of Physics Swiss National Centre of Competence in Research) (from Sep 2018)
- International member of the Scuola Normale Superiore of Pisa "*Collegio docenti*" (PhD studies board) for the PhD program ("*corso di perfezionamento*") in Mathematics (from Jan 2019)

Conferences, Meetings and Schools Organization

- Combinatorics, Dynamics and Geometry on Moduli Spaces, CIRM, Marseille, FRANCE (2022)
- Conference *100 anni dell'Unione Matematica Italiana e 800 anni dell'Università di Padova*, Scientific committee member, *Palazzo Bo, University of Padova, ITALY* (May 2022, *upcoming*)
- CIME Summer School "*Modern Aspects of Dynamical Systems*" organizer, (joint with Claudio Bonanno and Alfonso Sorrentino), *International Mathematical Summer Centre (CIME) Cetraro, ITALY* (July 2021)

- ICTP *Workshop on Dynamical Systems*,
organizer (joint with S. Luzzatto, J. de Simoi and M. Viana)
International Centre for Theoretical Physics (ICTP), Trieste, ITALY (October 2021, *postponed, tba*)
- Workshop "Dynamics of Parabolic Flows: recent advances and new perspectives" organizer,
(joint with G. Forni, K. Fraczek and B. Weiss),
(funded by my ERC Starting Grant ChaParDyn)
University of Zürich, SWITZERLAND, July 2019 (*upcoming*)
- Workshop on Dynamics and Moduli Spaces of Translation Surfaces, organizer
(jointly with M. Bainbrige, J. Chaika, A. Wright)
Fields Institute for Research in Mathematical Sciences, Toronto, CANADA (October 2018)
- ICTP *Summer School in Dynamical Systems* (2 weeks),
Director (joint with A. Wilkinson and J. Rodriguez-Hertz) and course lecturer,
International Centre for Theoretical Physics, Trieste, ITALY (July 2018)
- LMS Meeting in Honour of Maryam Mirzakhani organizer (joint with J. Smillie),
(day meeting to commemorate the work of Professor Maryam Mirzakhani (1977 -2017))
University of Warwick, UK (22 March 2018)
- Teichmueller dynamics workshop organizer (joint with J. Smillie and A. Zorich), (1 week within the
2017-18 EPSRC Symposium on Geometry, Topology and Dynamics in Low Dimensions,
University of Warwick, UK (19-23 March 2018)
- Women in mathematics: opportunities for the future Organizing Committee,
(event to encourage strong female students to consider a PhD in Mathematics, 50 final year female
undergraduate from across the UK attending),
University of Bristol, UK (Nov 2016 and Nov 2017)
- One Day Ergodic Theory Meeting, Satellite to the British Mathematics Colloquium,
University of Bristol, UK (March 2016)
- British Mathematics Colloquium Ergodic Theory Special Session,
University of Bristol, UK (March 2016)
- EPSRC Symposium: Recent advances in modern dynamics,
University of Warwick, UK (December 2011)
- London Mathematical Society Prospects in Mathematics 2011,
University of Bristol, UK, (December 2011)
- One Day Ergodic Theory Meeting, *University of Bristol*, UK (June 2010)

Seminar Series and Panels Organization

- Co-started as organizer the *Zürich Ergodic Theory and Dynamical Systems Seminar Series*,
joint between the University of Zürich and ETH Zürich, (organizer from Sep 2018);
<https://www.math.uzh.ch/index.php?id=1426&key1=0&key2=1280&key3=584&semId=40>

- Co-started as organizer the *ZGSM Forum*, series of Panel Discussions on career development topics for faculty, PhD students and Postdocs in the *Zürich Graduate School in Mathematics*, (from Sep 2019) <https://zgsm.math.uzh.ch/index.php?id=forum>
- Co-started and Organizer for the Academic Years 2008-2012 of the *Ergodic Theory and Dynamical Systems Seminar Series* at the University of Bristol;

Mini-courses and lecture series invitation (only accepted)

- Hadamard Lecture Series (12h),
Fondations Hadamard, Paris, FRANCE (Jun 2022, *upcoming*)
- IHES Graduate Course "Chaotic properties of flows on surfaces" (8h)
Institute des Hautes Etudes Scientifiques (IHES), Paris, FRANCE (Jan-Feb 2018)
- ICTP Summer School in Dynamical Systems course
"Renormalization in entropy zero dynamics" (10h),
International Centre for Theoretical Physics (ICTP), Trieste, ITALY (July 2018)
- GnFM Summer School course "Mathematical billiards: ergodicity and renormalization, from polygons to the Ehrenfest model" (6h),
XLII GnFM Summer School in Mathematical Physics, Ravello, ITALY (Sep 2017)
- FIM mini-course *Polygonal billiards, Teichmueller dynamics* (6h)
Institute for Mathematical Research (FIM), ETH Zurich, CH (Fall semester 2012).

Selected Longterm Invitations to International Programs and Research Visits

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|--------------|---|
| Jan-Feb 2018 | IHES (Institute des Hautes Etudes Scientifiques), Paris, FRANCE (2 weeks to teach a IHES mini-course) |
| Spring 2015 | MSRI (Mathematical Science Research Institute), Berkeley, CA, USA (5 weeks) Program <i>Geometric and Arithmetic Aspects of Homogeneous Dynamics</i> Invited Member |
| Jun 2014 | Newton Institute, Cambridge, UK, Invited Participant of the Research Program |
| Spring 2015 | MSRI (Mathematical Science Research Institute), Berkeley, CA, USA (5 weeks) Program <i>Geometric and Arithmetic Aspects of Homogeneous Dynamics</i> Invited Member |
| Jun 2014 | Newton Institute, Cambridge, UK, Invited Participant of the Research Program <i>Interactions between Dynamics of Group Actions and Number Theory</i> (1 month) |
| Fall 2013 | IAS (Israel Institute for Advanced Studies), Hebrew University, Jerusalem, ISRAEL Invited Member of the <i>Arithmetic and Dynamics</i> Research Group (4 months) |
| Sep 2012 | ETH Zurich, SWITZERLAND (4 months) |
| Sep 2011 | <i>Professeur Invité</i> at Université of Paris-Sud Orsay, FRANCE, (1 month) |
| Apr 2011 | University of Maryland, USA, (3 weeks) |
| Sep 2010 | Nicolaus Copernicus University, Torun, POLAND, (1 month) |

- Jul 2010 Hausdorff Institute, GERMANY, *Geometry and Dynamics of Teichmüller Spaces* (1 month)
- Apr 2010 Institute Mittag-Leffler, SWEDEN, Program *Dynamics and PDEs* (1 month)
- Jul 2009 Max Planck Institute in Bonn, GERMANY, Program *Dynamical Numbers* (1 month)
- Apr 2009 Institute for Advanced Studies, Princeton, NJ USA, (1 month)
- Feb 2009 *Professeur Invité* at CTP Luminy, FRANCE, (1 month)
- Jan 2008 Cornell University, NY, USA, (1 month)
- Fall 2007 MSRI Berkeley, CA USA, *Topics in Teichmüller Theory and Kleinian groups* (4 months)
- May 2007 Centro di Ricerca Matematica Ennio de Giorgi, Pisa, ITALY,
Research Program *Dynamical Systems and Number Theory* (1 month)
- June 2003 Caltech (California Institute of Technology), CA, USA, (1 month)

Selected Invitations to Speak at International Conferences (only accepted)

- Plenary speaker, *33rd Brazilian Mathematical Colloquium*,
IMPA, Rio de Janeiro, BRAZIL, August 2021
- Invited speaker, *XII Expanding Dynamics: Creative Online Ventures in Dynamics* (online), May 2021
- Invited speaker, special program *Renormalization and Universality in Conformal Geometry, Dynamics, Random Processes, and Field Theory* weekly seminar,
Simons Center for Geometry and Physics, Mar 2021
- Plenary speaker, *Workshop on Dynamical Systems and related topics*,
University of Maryland, College Park (MD), USA Apr 2021
- Keynote speaker, *Journée Georges de Rham 2020*, University of Geneva, Switzerland, Sep 2020
- Plenary speaker, *Dynamics Days Digital 2020*,
online edition of *Dynamics Days Europe*, Aug 2020
- Plenary speaker, *63rd Annual Meeting of the Australian Mathematical Society*,
Monash University, Clayton Campus, Melbourne, Victoria, AUSTRALIA Dec 2019
- Invited speaker, *Dynamics, Geometry and Combinatorics* conference,
Dynamics with Structures Semester,
Bernoulli Center, Geneva, Switzerland, Oct 2019
- Plenary speaker, *XXI Congress of the Italian Mathematical Union (UMI)*,
Pavia, ITALY Sep 2019
- Invited speaker, *2020 Vision for Dynamics (a conference in memory of Anatole Katok)*,
Banach Centre, Bedlewo, POLAND, Aug 2019
- Invited speaker, *Equidistribution, Invariant Measures and Applications -*,
(a tribute to the Legacy of Marina Ratner), IIAS, Jerusalem, ISRAEL May 2019
- Invited speaker, *Dynamics of Group Actions* (in honor of Yves Benoist),
Cetraro, ITALY, May 2018
- Plenary speaker, *GoMath: Women in Mathematics Symposium*,
ETH Zürich, SWITZERLAND, Mar 2018
- Invited speaker, *Les Journées de Dynamiques 2018 de Paris 6 et Paris 7*, Paris, FRANCE, Dec 2018
- Invited speaker, *From Order to Chaos*,
Centro di Ricerca Matematica Ennio de Giorgi, Pisa, ITALY 2016

- Plenary speaker, *Ergodic aspects of modern dynamics*,
Bedlewo, POLAND, Jun 2018
- Invited speaker, *North British Geometric Group Theory Meeting*,
University of Durham, UK, Oct 2017
- Invited speaker, *Clay Research Workshop on Ergodic Theory: Numbers, Fractals, and Geometry*,
University of Oxford, Oxford, UK, Sep 2017
- Invited speaker, *Dynamical Systems Conference*, MFO Oberwolfach, GERMANY 9-15 July 2017
- Invited speaker, *Modern Trends in the Ergodic Theory of Dynamical Systems*, DinAmicI V Workshop,
INdAM, Roma, ITALY, Jun 2017
- Invited speaker, *A conference in memory of Jean-Christophe Yoccoz*,
Collège de France, Paris, FRANCE, May-Jun 2017
- Invited speaker, *Teichmüller Space. Polygonal Billiard, Interval Exchanges*,
CIRM, Marseille, FRANCE 2017*
- Invited speaker, *Les Journées de Dynamiques 2016 de Paris 6 et Paris 7*, Paris FRANCE 2016*
- Invited speaker, *Analytical Methods in Classical and Quantum Dynamical Systems*,
Centro di Ricerca Matematica Ennio de Giorgi, Pisa, ITALY 2016
- Invited speaker, *Workshop on Geometric Group Theory and Low dimensional Topology*,
ICTP, Trieste, ITALY 2016
- Invited speaker, *Renormalization in Dynamics*, Centro de Giorgi, Pisa, ITALY 2016
- Plenary speaker, *Dynamical Systems Conference*, ICTP, Trieste, ITALY, 2015
- Invited speaker, *Dynamics and Geometry in the Teichmüller Space*, CIRM, Luminy, FRANCE 2015
- Keynote speaker, *INdAM DAY 2015* (Italian National Institute for Advanced Mathematics),
Bologna, ITALY 2015
- Invited speaker, *Dynamics and Numbers*, Max Planck Institute, Bonn, GERMANY, 2014
- Plenary speaker, *Groups and Numbers*, Newton Institute, Cambridge, RI, UK, 2014
- Morning speaker, *British Mathematics Colloquium 2014*, Queen Mary Univ. London, UK 2014
- Invited speaker, *PAD: Probabilty, Analysis and Dynamics*, University of Bristol 2014
- Invited speaker, *Geometric Structures in Low Dimensional Dynamics*, Institute for Computational
and Experimental Research in Mathematics (ICERM), Providence, RI, USA 2013
- Invited speaker, *Homogeneous Dynamics, Unipotent Flows and Applications*,
Israel Institute for Advanced Studies, Jerusalem, ISRAEL 2013
- Keynote speaker, *Women in Mathematics Day*, Newton Institute, Cambridge, UK 2013
- Invited speaker, *Continued Fractions, IETs and Applications to Geometry*,
Centro di Ricerca Matematica Ennio De Giorgi, Pisa, ITALY 2013
- Invited speaker, *Dynamical Systems*, Mathematisches Forshungsinstitut Oberwolfach, GERMANY 2013
- Invited speaker, *Probability and Numbers*, TU Delft 2013
- Invited Speaker, (Prize Winner Talk) *6th European Congress in Mathematics*, Krakow, POLAND 2012
- Invited speaker, *Workshop on infinite ergodic theory*, University of Surrey, Guildford, UK 2012

- Plenary speaker, *15th European Women in Mathematics Meeting*, Barcelona, SPAIN 2011
- Invited speaker, *Hamilton Geometry and Topology Workshop*, Dublin, IRELAND 2011
- Invited speaker, *Aspects of hyperbolicity in geometry, topology and dynamics*,
University of Warwick, UK 2011
- Invited speaker, *EPSRC Symposium Workshop on Ergodic Theory and Number Theory*,
University of Warwick, UK 2011
- Invited speaker, *Billiards, Flat Surfaces, and Dynamics on Moduli Spaces*,
Mathematisches Forschungsinstitut Oberwolfach (MFO) Oberwolfach, GERMANY 2011
- Plenary speaker, *Spring Dynamics Workshop*, University of Maryland, USA 2011
- Invited speaker, *Ergodic Theory Workshop*, University of North Carolina, Chapel Hill, USA 2011
- Plenary speaker, *Indam Meeting Hyperbolic Dynamical Systems in the Sciences*, Corinaldo, ITALY 2010
- Invited speaker, *Non-uniform hyperbolicity and IETs*, Institute Mittag-Leffler, SWEDEN 2010
- Invited speaker, *School on Periodic Approximations in Dynamics*,
Centro di Ricerca Matematica de Giorgi, Pisa, ITALY 2010
- Invited speaker, *Dynamical Numbers*, Max Planck Institute, Bonn, GERMANY 2009
- Plenary speaker, *Dynamical Systems and Related Topics*, University of Maryland, MD, USA 2009
- Invited speaker, *Dynamical Numbers*, Max Planck Institute, Bonn, GERMANY, 2009
- Invited speaker, *Probabilistic Aspects of Skew-Product Dynamics*, University of Manchester, UK 2008
- Invited speaker, *Dynamics in Teichmueller space*, Roscoff, FRANCE 2008
- Invited speaker, *Ergodic Theory and Geometry*, University of Manchester, UK 2008
- Invited speaker, *Workshop on Shrinking Targets*,
Clay Mathematical Institute, Cambridge, USA 2007
- Invited speaker, *Topics in Teichmueller Theory, Kleinian Groups*,
Mathematical Sciences Research Institute (MSRI), Berkeley, CA, USA 2007
- Invited Session Speaker, *Dynamical systems Special Session, AMS National Meeting*,
(*American Mathematical Society*) Nashville, TN, USA 2007
- Invited speaker, *Dynamical Systems and Number Theory*,
Centro di Ricerca Matematica de Giorgi, Pisa, ITALY 2007
- Invited speaker, *Connection for Women Workshop Teichmueller Theory et al*, MSRI, Berkeley, 2007
- Invited speaker, *Clay Mathematics Institute 2007 Summer School on Homogeneous Flows, Moduli
Spaces and Arithmetic*, Centro di Ricerca Matematica de Giorgi, Pisa, ITALY 2007
- Invited Session Speaker, *Canadian Math. Society Winter Meeting*, Toronto, CANADA 2006
- Invited Session Speaker, *Dynamical Systems Special Session, Mathematics and its Applications*
Joint Meeting of the Société Mathématique de France and
Unione Matematica Italiana, Torino, ITALY 2006
- Invited Session Speaker, *Spring 2006 Dynamics Workshop*, University of Maryland, USA, March 2006

Selected Invited Colloquia and Seminar Talks

- *In Europe*, Colloquia Invitations:

Tel Aviv University, ISRAEL *Mathematics Colloquium*;
 Université Neuchâtel *Mathematics Colloquium* (Colloques du mardi), Neuchâtel, SWITZERLAND;
 Cambridge University, Cambridge, UK, *Pure Mathematics Colloquium*;
 University of Padova, Trieste, ITALY, *Colloquia Patavina*;
 International School for Advanced Studies (SISSA), Trieste, ITALY, *Colloquium*;
 University of Basel, SWITZERLAND *Perlen Colloquium*;
 Heidelberg University, GERMANY, *Mathematisches Kolloquium*;
 University of Birmingham, *Colloquium*;
 University of Bristol, *Colloquium*;
 Durham University, *Pure Mathematics Colloquium*;
 Southampton University, *Colloquium*,
 Università di Pisa, ITALY, *Colloquium*;
 University of Leicester, *Colloquium*;

- *Online Seminars Series:*

BISTRO Seminar (Billiards and Surfaces à la Teichmüller and Riemann, Online)
 UWA Analysis Seminars series, University of Western Australia (online)

- *In the USA, Seminar Talks and Colloquia selecta [Invitations marked with * could not be accepted]*

Michigan Center for Applied and Interdisciplinary Mathematics, U. of Michigan, MCAIM *Colloquium*;
 University of California, Berkeley, *Department of Mathematics Colloquium*;
 University of Maryland, *Dynamical Systems Seminar*;
 Princeton University, *Ergodic Theory and Statistical Mechanics Seminar*;
 Northwestern University, *Dynamical Systems Seminar**;
 Cornell University, *Geometry and Topology Seminar*;
 University of Oregon, *Colloquium**;
 Rice University, *Ergodic Theory Seminar*;
 University of Michigan, *Geometry Seminar*;
 Yale University, *Dynamics of Group Actions Seminar*;
 University of Chicago, *Dynamics and Global Analysis Seminar*;

- *In Europe, Invited Seminar Series Talks:*

University of Oxford, *Geometry seminar*;
 Technion, Haifa, ISRAEL; *Geometry and Topology Seminar*;
 Tel Aviv University, ISRAEL *Horowitz Seminar on Probability, Ergodic Theory and Dyna. Systems*;
 University of Loughborough, *Dynamics and geometry seminar*;
 Imperial College, *London Analysis and Probability Seminar*;
 Imperial College, *DynamIC Seminar*;
 MAGIC Universities Network (live video-conferencing), *AG dynamics seminar*;
 Durham University, *Pure Mathematics Colloquium*;
 University of Warwick, *Geometry and Topology seminar*;
 University of Bristol, *Dynamical Systems and Ergodic Theory Seminar*;

University of Manchester, *Ergodic Theory and Dynamical Systems Seminar*;
 Queen Mary University *Dynamical systems seminar*;
 University of Surrey, *Dynamical Systems Seminar*;
 Nicolaus Copernicus University, Torun, POLAND, *Ergodic Theory Seminar*;
 Warwick University, UK, *Ergodic Theory and Dynamical Systems Seminar*;
 ETH Zurich (Eidgenössische Technische Hochschule Zürich), SWITZERLAND, *Geometry Seminar*;
 Université de Paris-Sud Orsay, FRANCE, *Geometry Seminar*;
 University of Rennes, FRANCE, *Groupe de Travail Ergodique et Dynamique*;
 The Hebrew University of Jerusalem, ISRAEL, *Dynamics and Probability Seminar*;
 Nicolaus Copernicus University, Torun, POLAND, *Ergodic Theory Seminar*;
 University of Cambridge, *Differential Geometry and Topology Seminar*;
 Institut de Mathématique de Marseille, Marseille, FRANCE, *Teichmueller Seminar*;
 Institut de Mathématique de Marseille, Marseille, FRANCE, *Seminaire Rauzy*
 Scuola Normale Superiore, ITALY, *Dynamical Systems Seminar*;
 Institute Fourier, Grenoble, FRANCE, *Groupe de Travail en Physics Mathématique*;

Selected Public Engagement and Outreach

- Inaugural lecture (prolusione) *I meccanismi matematici del caos lento*, as a new member of the Italian Accademia Nazionale delle Scienze, detta dei XL, Inauguration of the 239^o Academic Year of the XL Academy, (Oct 2021)
- invited lecturer for an Archimedean Talks, for the Cambridge Mathematics Students Society, UK (February 2021)
- Keynote speaker of the event *Faces of Geometry II edition, from Agnesi to Mirzakhani* Politecnico di Milano, Milano, ITALY (Oct 2020) (with a mixed audience of mathematicians, architects and high school teachers)
- Dialoghi Matematici: *Maryam Mirzakhani* (speaker with Alessio Figalli and Roberto Natalini) Auditorium Parco della Musica, Roma, ITALY (Mar 2020, *cancelled*)
- Public lecture "*Biliardi, Farfalle e Caos* for the opening of the 2019/20 Academic Year, Collegio Fonda, University of Trieste, Trieste, ITALY (Oct 2019)
- Inaugural lecture *Billiards, butterflies and mathematical (slow) chaos*, University of Zürich, 7 October 2019
- Public lecture *Billiards, flat surfaces and the magic wand theorem - a tribute to Maryam Mirzakhani*, Accademia dei Lincei, Roma ITALY (May 2019)
- Public engagement survey article "*Mathematical billiards, chaos and "infinite" doughnuts: why mathematicians "play" billiards, from polygons to the Ehrenfest model.*" (in Italian), for the Italian *Matematica nella Cultura e Società*, a Italian Mathematical Union Publication (2018)
- Committee member for the 2017 *Guido Castelnuovo Prize for public engagement in Mathematics* awarded by the Italian Mathematical Union.
- Public lecture *Billiards, Pretzels and Chaos*, University of Bristol, 30 November 2016

- Interviewed for two articles for the Plus Magazine for the popularization of mathematics, *Chaos on the billiard table* and *Playing Billiard on Doughnuts* (by Marianne Freiberger, May 2014) (<http://plus.maths.org/content/chaos-billiard-table>, <http://plus.maths.org/content/billiards-donuts>)
The first is being translated for the Italian magazine Xla Tangente.
- The above two articles have been published in the Volume in *The Best Writing on Mathematics 2015*, published by Princeton University Press and edited by Mircea Pitici
<http://press.princeton.edu/titles/10558.html>
- A 30-minutes *radio interview* for the Italian national radio program RadioScienza (aired on the channel RaiRadio3 on 11, July 2012)
- An *interview for the public engagement website MaddMaths!* of the Italian Society for Applied and Industrial Mathematics SIMAI and the Italian Mathematical Union UMI. The interview also appeared in the newsletter Madd-Letter n.28, Sep-Oct 2012. <http://maddmaths.simai.eu/>
- A *Research Highlight* in the University of Bristol webpage.
<http://www.maths.bris.ac.uk/research/highlights/ergodicity/>
- An interview for the *Newsletter* of the *European Women in Mathematics Association*, published in Oct-Nov 2012.
- public talk in the series *Mathematics in Culture and Society* University of Trieste, ITALY, ;

Promotion of Women in Mathematics (some examples)

- Member of the Since 2021, I am a member of the EMS/EWM Scientific Panel: the panel, consisting of twelve leading women mathematicians, is an independent panel established jointly by the European Mathematical Society (EMS) and the association European Women in Mathematics. <https://womenandmath.wordpress.com/emsewm-scientific-committee/> The panels remit is to provide advice to the EMS and EWM on scientific questions involving women and mathematics. It advises on scientific topics and speakers for events aimed at emphasizing womens scientific contributions, such as those organised separately or jointly by EWM and the EMS. It may also be consulted about women speakers for other mathematical meetings or scientific activities, and other similar matters.
- Starter and organizer a weekly *Women in Mathematics lunch* at the University of Zürich, a networking opportunity, from PhD students to professors (from Sep 2018)
- Key note speaker of the E-event for the May12 Women in Mathematics day *Celebrating Women in Math at Universidade Federal do Rio de Janeiro* (Brasil), 2020
- Panel speaker of *Scienza al femminile 2020: essere donna e essere scienziato* (being a female scientists: open discussion between a group of female scientists and students of the secondary school of first and second degree) 31 Jan 2020 *upcoming*)
- *Coffee Lecture with Prof. Dr. Corinna Ulcigrai*, Discussions on gender equality and equity organized by the Phimale Association, ETHZ, 8yh May 2019
- Australian Mathematical Society Meeeting Women in Mathematics Dinner (December 2019);
- *Women in STEM: the advice I would give now to my younger self*, Women lunch invited speaker, Institute for Computational Science lunch, University of Zürich, 2nd May 2019
- Plenary speaker and Forum Panelist, GoMath Women in Mathematics Symposium, ETH Zürich (March 2018)

- Exhibition profile at Portraits of women scientists (one of the 8 women mathematicians represented with a portrait and a quote), exhibition at ETH Zürich (Mar 2018), now available online: <https://math.ethz.ch/news-and-events/events/gomath/gomath-2019/exhibition/portraits-women-scientists.html>
- Member of the Equal Opportunity Committee of SwissMAP (from Sep 2018) (The Mathematics of Physics National Centre of Competence in Research), a swiss national network in Mathematics and Physics)
- Member of the Equality and Diversity Committee at the School of Mathematics, Bristol University (from Jan 2014)
- Member of the *EWM Standing Committee* of the European Women in Mathematics Association (Sep 2011-Sep 2015)
- Contributor to the School of Mathematics of the University of Bristol Athena SWAN Award Bronze and Silver submission (a recognition to Departments who promote Diversity); the Bronze was awarded to the School in 2015, the application for Silver was just submitted.
- Organizer of the *Women in Mathematics: Opportunities for the Future* event at the University of Bristol, to encourage more female undergraduates from across the UK to consider a Phd in Mathematics (November 2016 and November 2017; the last one had 50 female last year undergraduate participants from across the UK)
- *Mentoring* for female junior members of staff and female undergraduate students, via the Women in Mathematics weekly lunches and the gatherings for first year and for 3rd and 4th year female students in Mathematics (which I organized in 2011-12).
- Support to women in academia during *Maternity leave* and upon their return to work to *balance research and family commitments*, by writing a Math specific *Maternity package* and via mentoring (drawing also personal experience, I had two Maternity leaves, in 2012 and 2015);
- Invited talks at events such as the *LMS Women in Mathematics Day* (Newton Institute, 2013) and *LMS Prospects in Mathematics* (Edinburgh, 2011) and organizers of the LMS Prospects in Mathematics (in 2011) which had 5 out of 10 female speakers, to offer *role models to younger generations of women*.

Other Service to the Community

- Served in many *Hiring Committees* (for the Max Planck Society, University of Bristol, University of Zürich and ETH Zürich among other institutions);
- Invited member of the EPSRC Peer Review College (UK Research Council) (Sep 2012-2018)
- Served as *Rapporteur/Committee member* for Phd Examinations (in France, UK, Switzerland);
- *Scientific Referee* for various journals, including Annals of Mathematics, Inventiones, Journal of the American Mathematical Society, Annales de l'Ecole Normale Supérieure, Geometriae Dedicatae, GAFA, Annales de l'Institut Fourier, Journal of Modern Dynamics, Ergodic Theory and Dynamical Systems, Non-linearity.