

CURRICULUM VITAE

ALESSANDRA IOZZI

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I. Personal Data

BIRTHPLACE AND BIRTHDATE: Rome, Italy, 25 January 1959

CITIZENSHIPS: Italy, U.S.A.

MARITAL STATUS: Divorced, two children (1992, 1995)

LANGUAGES SPOKEN: Italian, English, French, German

EDUCATION

Ph.D. in Mathematics, 1989, University of Chicago, Chicago, IL, U.S.A. (1985–1989)

ADVISOR: Robert J. Zimmer

S.M. in Mathematics, 1985, University of Chicago, Chicago, IL, U.S.A. (1984/1985)

Honors Laurea, 1982, University of Rome, Rome, Italy (1978–1982)

ADVISOR: Massimo A. Picardello

PROFESSIONAL EXPERIENCE

Isaac Newton Institute, Cambridge, UK (Spring semester 2017): Professor and Organizer

Mathematical Sciences Research Institute, Berkeley, CA, U.S.A (Fall semester 2016): Research Professor

Mathematical Sciences Research Institute, Berkeley, CA, U.S.A (Spring semester 2015): Simons Research Professor

Institute for Advanced Study, Princeton, NJ, U.S.A. (Spring semester 2013): Member

Eidgenössische Technische Hochschule Zürich, Switzerland (Apr. 2008–today): Professor

Eidgenössische Technische Hochschule Zürich, Switzerland (Oct. 2006–Apr. 2008): Senior Scientist

Universität Basel, Basel, Switzerland (Oct. 2004–Sept. 2006): SFN Professor

Université de Strasbourg, France (2003–2006): Professor P.A.S.T.

Université de Strasbourg, France (Spring semester 2003): Visiting Professor

Université de Strasbourg, France (Spring semester 2002): Visiting Professor

Eidgenössische Technische Hochschule Zürich, Switzerland (Oct. 2004–today): Lehrbeauftragte (Graduate Colloquium)

Eidgenössische Technische Hochschule Zürich, Switzerland (Jan. 2002–Sept. 2004): Research Associate

FIM, Eidgenössische Technische Hochschule Zürich, Switzerland (Aug. 2000–Dec. 2001): Guest

University of Maryland, College Park, MD, U.S.A. (1992–2000): Assistant Professor

Institute for Advanced Study, Princeton, NJ, U.S.A. (1992/1993): Member

Mathematical Sciences Research Institute, Berkeley, CA, U.S.A. (1991/1992): Postdoctoral Fellow

University of Pennsylvania, Philadelphia, PA, U.S.A. (1989–1991): Lecturer (Postdoctoral position)

University of Chicago, Chicago, IL, U.S.A. (1986–1989): Lecturer

SELECTED INVITATIONS AT RESEARCH INSTITUTES (AT LEAST ONE WEEK)

Isaac Newton Institute, Cambridge, UK, Spring semester 2017

Mathematical Sciences Research Institute, Berkeley, CA, U.S.A., Fall semester 2016

Mathematical Sciences Research Institute, Berkeley, CA, U.S.A., Spring semester 2015

Centro Enrico De Giorgi, Pisa, Italy, June 2014

Institute Henri Poincaré, Paris, France, January–April 2014

Institute for Advanced Study, Princeton, NJ, U.S.A., Spring semester 2013

Centro de Investigacion en Matematicas, Guanajuato, Mexico, August 2012

Geometric Group Theory, Park City, U.S.A., July 2012

Mittag-Leffler Institute, Stockholm, Sweden, January–May 2012

Institute Henri Poincaré, Paris, France, February 2012

Centro de Investigacion en Matematicas, Guanajuato, Mexico, July-August 2008

Institut Joseph Fourier, Université de Grenoble, Grenoble, June 2004

Mathematisches Forschungsinstitut Oberwolfach, Germany, May 2004

Erwin Schrödinger Institute of Mathematical Physics, Vienna, Austria, August 2002

Erwin Schrödinger Institute of Mathematical Physics, Vienna, Austria, July 2001

Mathematisches Forschungsinstitut Oberwolfach, Germany, February 2001

Isaac Newton Institute, Cambridge, UK, January, March and May–June 2000

ETH, Zürich, Switzerland, November 1999

University of Bielefeld, Bielefeld, Germany, July 1999

Centro de Investigacion en Matematicas, Guanajuato, Mexico, August 1998

Centro de Investigacion en Matematicas, Guanajuato, Mexico, January 1998

Università di Roma, Tor Vergata, Roma, Italy, January and June 1997

Centro de Investigacion en Matematicas, Guanajuato, Mexico, June 1996

University of Chicago, May 1994

University of Chicago, May 1993

University of Warwick, July 1992

II. Research Activity

A. SCIENTIFIC WORK

I. ARTICLES PUBLISHED OR ACCEPTED FOR PUBLICATION

- [1] *Graphs and convolution operators*, in “Topics in Modern Analysis”, (1983), 187–208, I.N.d.A.M., Roma
(in collaboration with M. Picardello)
- [2] *Spherical functions on symmetric graphs*, Lecture Notes in Math. 992 (1983), 344–386, Springer Verlag,
Berlin (in collaboration with M. Picardello)
- [3] *Harmonic analysis on the free product of two cyclic groups*, Boll. Un. Mat. It. (6), 4-B (1985), 167–177
- [4] *A non-linear extension of the Borel Density Theorem: applications to invariance of geometric structures
and to smooth orbit equivalence*, Bull. Amer. Math. Soc. 23 (1990), 115–120
- [5] *Invariant geometric structures: a non-linear extension of the Borel Density Theorem*, Amer. J. Math.
114 (1992), 627–648
- [6] *Algebraic hulls and smooth orbit equivalence*, Trans. Amer. Math. Soc., 326 (1991), 371–384
- [7] *Equivariant maps and purely atomic spectrum*, J. Funct. An., 124 (1994), 211–227
- [8] *Algebraic hulls and the Følner property*, GAFA, 6-4 (1996), 666–688 (in collaboration with A. Nevo)
- [9] *Limit sets of isometry groups of exotic hyperbolic spaces*, Trans. Amer. Math. Soc., 351-4 (1999),
1507–1530, (in collaboration with K. Corlette)
- [10] *Boundary compactifications of $SL(2, \mathbf{R})$ and $SL(2, \mathbf{C})$* , Forum Math., 11-3 (1999), 385–397 (in collabo-
ration with J. Poritz)
- [11] *The moduli space of boundary compactifications of $SL(2, \mathbf{R})$* , Geom. Dedicata, 76 (1999), 65–79 (in
collaboration with J. Poritz)
- [12] *Cartan-decomposition subgroups of $SU(2, n)$* , J. Lie Theory, 11 (2001) 505–543 (in collaboration with
D. Witte)
- [13] *Bounded cohomology, boundary maps and rigidity of representations into $\text{Homeo}_+(S^1)$ and $SU(n, 1)$* ,
in “Rigidity in Dynamics and Geometry”, Cambridge 2000, Springer Verlag, 2002, pp. 237–260
- [14] *Boundary maps in bounded cohomology*, GAFA, 12 (2002), 281–292, (in collaboration with M. Burger)
- [15] *Surface group representations with maximal Toledo invariant*, C. R. Math. Acad. Sci. Paris, Ser.I 336
(2003), 387–390, (in collaboration with M. Burger and A. Wienhard)
- [16] *Tessellations of homogeneous spaces of classical groups of real rank two*, Geom. Dedicata, 103 (2004),

- 115–191 (in collaboration with D. Witte)
- [17] *A vanishing theorem for the tangential de Rham cohomology of foliations with an amenable fundamental groupoid*, *Geom. Dedicata*, 103 (2004), 205–223 (in collaboration with K. Corlette and L. Hernández)
- [18] *Bounded Kähler class rigidity of actions on hermitian symmetric spaces*, *Ann. Sci. École Norm. Sup.* (4) 37 (2004), no. 1, 77–103 (in collaboration with M. Burger)
- [19] *On the cohomology of foliations with amenable groupoid*, in “Random Walks and Geometry”, Vienna, 2001, de Gruyter, 2004, pp. 445–457
- [20] *Equivariant embeddings of trees into hyperbolic spaces*, *I.M.R.N.* 22 (2005), 1331–1369 (in collaboration with M. Burger and N. Monod)
- [21] *Maximal Representations of Surface Groups: Symplectic Anosov Structures*, *Pure Quarterly Journal of Pure Appl. Math. Q.*, Volume in memory of Armand Borel, 1 (2005), no. 3, 543–590 (in collaboration with M. Burger, F. Labourie and A. Wienhard)
- [22] *Hermitian symmetric spaces and Kähler rigidity*, *Transformation Groups*, 12 (2007), no. 1, 5–32 (in collaboration with M. Burger and A. Wienhard)
- [23] *A useful formula in bounded cohomology*, in “Géométrie à courbure négative ou nulle, groupes discrets et rigidité”, *Séminaires et Congrès*, 18 (2008), 245–294 (in collaboration with M. Burger)
- [24] *Bounded differential forms, generalized Milnor–Wood inequality and applications to rigidity theory*, *Geom. Dedicata* 125 (2007), no. 1, 1–23 (in collaboration with M. Burger)
- [25] *Bounds for cohomology classes*, in “Guido’s book of conjectures”, *Enseign. Math.*, Monographie no. 40 (2008), 56–59 (in collaboration with M. Burger, N. Monod and A. Wienhard)
- [26] *A measurable Cartan theorem and applications to deformation rigidity in complex hyperbolic geometry*, *Pure Appl. Math. Q.* 4 (2008), Volume in honor of G. Margulis 1, part 2, 181–202 (in collaboration with M. Burger)
- [27] *Surface group representations with maximal Toledo invariant*, *Annals of Math.*, no. 172(1) (2010), 517–566 (in collaboration with M. Burger and A. Wienhard)
- [28] *Tight homomorphisms and Hermitian symmetric spaces*, *Geom. Funct. Anal.*, 19(3) (2009), 678–721, (in collaboration with M. Burger and A. Wienhard)
- [29] *On relative Property (T)*, “Geometry, rigidity and group actions”, 375–395, *Chicago Lecture Notes in Math.*, University of Chicago Press, Chicago, IL, 2011

- [30] *Bounded cohomology and totally real subspaces in complex hyperbolic geometry*, Erg. Th. and Dyn. Sys., 32 (2012), 467–478, (in collaboration with M Burger)
- [31] *Higher Teichmüller theory: from $SL(2, \mathbf{R})$ to other Lie groups*, Handbook of Teichmüller theory, ed. A. Papadopoulos, 2014, vol. IV, 539–618 (in collaboration with M. Burger and A. Wienhard)
- [32] *A new family of representations of virtually free groups*, Math. Z., 274 (2013), no.1-2, 167–184 (in collaboration with M. G. Kuhn and T. Steger)
- [33] *A Dual Interpretation of the Gromov–Thurston Proof of Mostow Rigidity and Volume Rigidity for representations of Hyperbolic Lattices*, "Trends in Harmonic Analysis", M. A. Picardello (ed.) Springer INdAM Series 3, 2013, 47–76 (in collaboration with M. Bucher and M. Burger)
- [34] *Isometric embeddings in bounded cohomology*, J. Topology and Analysis, 6(1), 2014, 1–25 (in collaboration with M. Bucher, M. Burger, R. Frigerio, C. Pagliantini and M. B. Pozzetti)
- [35] *The median class and superrigidity of actions on $CAT(0)$ cube complexes*, J. Topology, 9 (2016) 349–400, doi: 10.1112/jtopol/jtu025 (in collaboration with I. Chatterji and T. Fernós, with an appendix by P. E. Caprace)
- [36] *On weakly maximal representations of surface groups*, J. Diff. Geom., 105(3) (2017), pp. 375-404 (in collaboration with G. Ben Simon, M. Burger, T. Hartnick and A. Wienhard)
- [37] *On order preserving and causal representations*, to appear in the J. London Math. Soc., 92(2), 2016, 525–544, doi: 10.1112/jlms/jdw048 (in collaboration with G. Ben Simon, M. Burger, T. Hartnick and A. Wienhard)
- [38] *Stability properties of multiplicative representations of the free group*, to appear in Trans. Amer. Math. Soc., arXiv:1204.0942, (in collaboration with M. G. Kuhn and T. Steger)
- [39] *The bounded Borel class and complex representations of 3-manifold groups*, arXiv:1421.3428, (in collaboration with M. Bucher and M. Burger), to appear in Duke Math. J.

II. PREPRINTS

- [40] *Integrality of volumes of representations*, arXiv: 1407.0562, (in collaboration with M. Bucher and M. Burger), submitted
- [41] *Characterising actions on trees yielding non-trivial quasimorphisms*, arXiv:1412.7852, (in collaboration with C. Pagliantini and A. Sisto), submitted

- [42] *A structure theorem for geodesic currents and length spectrum compactifications*, arXiv:1710.07060,
(in collaboration with M. Burger, A. Parreau and M. B. Pozzetti)
- [43] *Isometric properties of relative bounded cohomology*, arXiv:1205.1022, (in collaboration with
M. Bucher, M. Burger, R. Frigerio, C. Pagliantini and M. B. Pozzetti)
- [44] *Weakly maximal representations of surface groups*, preprint announcement, arXiv:1112.0449
(in collaboration with G. Ben Simon, M. Burger, T. Hartnick and A. Wienhard)
- [45] *Bounded cohomology and representation varieties of lattices in $PSU(1, n)$* , preprint announcement,
2000, 9 pages, <http://www.math.ethz.ch/~iozzi/ann-def.pdf> (in collaboration with M. Burger)
- [46] *Bounded cohomology and deformation rigidity in complex hyperbolic geometry*, preprint, 56 pages,
<http://www.math.ethz.ch/~iozzi/deform.pdf>, (in collaboration with M. Burger)

III. RESEARCH ARTICLES IN PREPARATION

- [1]_p *Positive crossratios, barycenters, trees and applications to maximal representations*, (in collaboration
with M. Burger, A. Parreau and M. B. Pozzetti)
- [2]_p *The real spectrum compactification of the variety of maximal representations*, (in collaboration with
M. Burger, A. Parreau and M. B. Pozzetti)
- [3]_p *Visibility in $CAT(0)$ cube complexes*, (in collaboration with D. Guralnik and M. Hagen)
- [4]_p *ℓ^2 -stability and homomorphisms into the mapping class group*, preprint in preliminary version
(in collaboration with M. Burger)
- [5]_p *Quantitative relative property (T)* , preprint in preliminary version
- [6]_p *Disintegration of C^* -free groups*, (in collaboration with G. Arzhantseva)
- [7]_p *Maximal representations and Anosov structures*, preprint in preliminary version (in collaboration with
M. Burger and A. Wienhard)
- [8]_p *Rotation numbers and geometry of commutators*, preprint in preliminary version

IV. BOOKS

- [1] *Rigidity in Dynamics and Geometry*, Proceedings of the Programme at the Newton Institute, Cambridge
UK, March 2000, editors M. Burger and A. Iozzi, Springer Verlag, 2002

V. BOOKS IN PREPARATION

- [1] *Lectures on bounded cohomology*, based on the notes of a graduate course at ETH, 2002/03 and 2003/04

VI. TECHNICAL REPORTS

- [1] *Limit sets of isometry groups of exotic hyperbolic spaces*, Abstracts from the Workshop on Dynamical Systems and Related Topics, University of Maryland–Penn State Conference, 1994,
- [2] *Embeddings of SL_2 and their moduli space*, Abstracts from the Workshop on Dynamical Systems and Related Topics, University of Maryland–Penn State Conference, 1997,
- [3] *Applications of bounded cohomology to rigidity and to foliations*, Topological methods in group theory, Oberwolfach, Germany, 28 Jan. – 3 Feb. 2001
- [4] *Bounded cohomology, maximal representations, rotation numbers and quasimorphisms*, Geometric group theory, hyperbolic dynamics, and symplectic geometry, Oberwolfach, Germany, 23 Jul. – 29 Jul. 2006

B. HONORS AND DISTINCTIONS

Simons Professorship, M.S.R.I., Spring 2015

Member of the Robert Bosch Stiftung

Plenary speaker at the European Women in Mathematics 17th General Meeting, Cortona, Italy, September 2015

“Distinguished Women in Mathematics Lecture Series”, University of Texas at Austin

Kovalevskaja Lecture, February 2018

C. GRANTS AND FELLOWSHIPS

Isaac Newton Institute Simons Research Professorship, “Non-positive curvature group actions and cohomology”, January–June 2017

Isaac Newton Institute membership, “Non-positive curvature group actions and cohomology”, January–June 2017

SNF (Swiss NSF) grant 200020_169106, 01-10-2016/30.09.2019 (approx. 700'000 \$)

M.S.R.I. Research professorship, “Geometric Group Theory”, August–December 2016

M.S.R.I. Simons Visiting Professorship, “Dynamics on Moduli Spaces of Geometric Structures”, January–June 2015

ERC (Uri Bader and Nicolas Monod), Department of mathematics of the University of Bologna, PRIN, Lehrstuhlkredit Emmanuel Kowalski, Department of mathematics ETHZ, Zürich Graduate School of Mathematics, Swiss Mathematical Society, Foundation Compositio, GNSAGA, National Science Foundations: funds to organise the workshop “Manifolds and Groups”, Ventotene, Italy, 7–12 September 2015 (approx. 140'000 Euro)

SNF (Swiss NSF) grant 200020_144373, 01-10-2012/30.09.2016 (approx. 800'000 \$)

Forschungsinstitut für Mathematik ETH, Zürich Graduate School of Mathematics, ERC (Uri Bader and Nicolas Monod), EGG Chair EPFL, Department of mathematics of Milano Bicocca, GNAMPA, PRIN: funds to organise the workshop “Analytic and geometric group theory”, Ventotene, Italy, 9–14 September 2013 (approx. 70'000 Euro)

SNF (Swiss NSF) grant 200021.127016, 01-10-2009/30.09.2012 (approx. 220'000 \$)

Institute for Advanced Study, Princeton, NJ, U.S.A. Fall term 2005–2006, March 2006

SNF, EUCOR Basel, EUCOR Strasbourg, EUCOR Karlsruhe, I.R.M.A. Strasbourg, Université de Strasbourg, Service des Relations Internationales, Universität Basel: funds to organize the conference “Bounded Cohomology, Harmonic Maps and Higgs bundles”, Strasbourg and Basel, 14–19 March 2005

Assistant Professor Fellowship, SNF (Swiss NSF), 10-01-2004/30-09-2008 (approx. 1'500'000 \$)

Mathematisches Forschungsinstitut Oberwolfach, Research in Pairs, 2 weeks in March 2003

“Marie Heim-Voegtlin” Fellowship, SNF (Swiss NSF), 01-01-2003/30-09-2003 (approx. 90'000 \$)

ETH Research Project, 01-01-2002/31-12-2002 (approx. 80'000 \$)

Mathematisches Forschungsinstitut Oberwolfach, Research in Pairs, 2 weeks in February 2001 and February 2002,

Research grant to participate to the “Ergodic theory, number theory and geometric rigidity” special semester, Newton Institute, Cambridge, UK, January–June 2000

National Science Foundation grant DMS90-01959, U.S.A., 1990/92

AMS travel grant to attend the ICM-90 in Kyoto, Japan

C.N.R. (Italian NSF) fellowship, 10-01-1987/06-30-1989

M.P.I. (Italian Ministry of Public Instruction) fellowship, 1984/87

University of Chicago Fellowship, 1984/89

Fulbright fellowship, 1984

University fellowship, University of Rome, Italy, 1984

I.N.d.A.M. fellowship, Rome, Italy, 11-01-1982/10-31-1984

C.N.R. (Italian NSF) fellowship, 11-01-1981/10-31-1982

D . SELECTED INVITED TALKS

I. MINICOURSES

- “Surface group representations and projective structures”, ICTS, Bangalore, December 2018
- V Young Geometric Group Theory (minicourse), Karlsruher Institut für Technologie, February 2016
- CIMAT, Mérida, Mexico, Inaugural Conference, September 2015
- “Discrete group actions in geometry and topology”, Borel Seminar 2014, Les Diablerets, Switzerland, July 2014
- “Examples of groups”, Ohio State University, Columbus, OH, U.S.A., May-June 2010
- CIMAT, Guanajuato, Mexico, August 2008
- “Examples of groups”, Columbus, OH, U.S.A., June 2008
- “Non-Positively Curved Geometries, Discrete Groups and Rigidity”, Université de Grenoble, Grenoble, France, June 2004
- “Shimura Varieties, Lattices and Symmetric Spaces”, Monte Verità, Ascona, Switzerland, May 200

II. DISTINGUISHED LECTURES

- Kovalevskaja Lecture, Bielefeld, Germany, April 2018
- EWM 17th General meeting, (plenary lecture), Cortona, Italy, September 2015
- “Distinguished Women in Mathematics Lecture Series”, University of Texas at Austin, Austin, TX, U.S.A., April 2015

III. CONFERENCES

- “Groups in Madrid”, Universidad Autonoma de Madrid, Madrid, Spain, November 2018
- “Growth in Topology and Number Theory”, HCM, Bonn, Germany, July 2018
- “Topologie”, Oberwolfach, Germany, July 2018
- “Nonpositively Curved Groups on the Mediterranean”, Nahsholim, Israel, May 2018
- “Topological and Homological Methods in Group Theory”, Bielefeld, Germany, April 2018
- “Geometry of Groups and 3-manifolds: State of the Art and Perspectives”, Luminy, France, February 2018
- “CURVE-2017”, University of Maryland, College Park, MD, U.S.A., August 2017
- “Geometric and Asymptotic Group Theory with Applications”, University of the Basque Country, Bilbao, Spain, July 2017
- “Geometric Structures in Group Theory”, Oberwolfach, Germany, June 2017
- “Groups and Geometry in the South East”, University of Oxford, May 2017
- “Approximation, deformation, quasification”, Isaac Newton Institute, May 2017

“Asymptotic geometry of groups and spaces”, Universität Heidelberg, February 2017
 “Winter of Disconnectedness”, University of Newcastle, Australia, July-August 2016
 ”Geometry and computation on graphs and complexes”, University of Newcastle, UK, June 2016
 “Non-positive curvature and infinite dimension”, Nancy, France, August 2015
 ”CURVE-2015”, Université de Paris VI, Paris, France, June 2015
 “Connection for women: Dynamics on moduli spaces of geometric structures”, M.S.R.I., Berkeley, CA, U.S.A., January 2015
 Joint meeting of the Northern British Geometric Group Theory (NBGGT) and the Algebra and Representation Theory in the North (ARTIN), Glasgow, UK, November 2014
 “The 10th William Rowan Hamilton Geometry and Topology Workshop”, Dublin, Ireland, August 2014
 “Geometry on groups and spaces”, (plenary lecture), KAIST, Daejeon, Korea, August 2014
 “Teichmüller theory and surfaces in 3-manifolds, Pisa, Italy, June 2014
 GEAR Retreat, University of Maryland, College Park, MD, U.S.A., March 2014
 “Geometric group theory”, Karlsruher Institut für Technologie, Karlsruhe, Germany, October 2013
 “Exotic geometric structures, ICERM, Brown University, Providence, RI, U.S.A., September 2013
 “Hot topic: surface subgroups and cube complexes”, M.S.R.I., Berkeley, U.S.A., March 2013
 ”Cohomological methods in geometric groups theory”, BIRS, Banff, Canada, November 2012
 IV Latin American Conference on Lie Groups and Geometry, CIMAT, Guanajuato, Mexico, August 2012
 “Geometric Group Theory Summer School”, Park City Mathematical Institute, Park City, UT, U.S.A., July 2012
 “Moduli spaces of representations”, Institute Henri Poincaré, Paris, February 2012
 Institute Mittag-Leffler, Djursholm, Sweden, January 2012
 “Geometric group theory”, Haifa, Israel, June 2011
 “XXXI conference in harmonic analysis”, Rome, Italy, June 2011
 “Representations of surface groups and Higgs bundles”, Oxford, UK, March 2011
 “Weihnachtworkshop”, Karlsruhe Universität, Karlsruhe, Germany, December 2010
 “Geometric group theory”, Goa, India, August, 2010
 “Geometric Group Theory, Hyperbolic Dynamics and Symplectic Geometry”, Oberwolfach, July 2010
 “Homogeneous Dynamics and Number Theory”, Oberwolfach, July 2010
 “Character Varieties in the Geometry and Topology of Low-dimensional Manifolds”, Banff, Canada,

April 2010

- “Geometric structures in 2 and 3 dimensions”, Autrans, January 2010
- XXVIII Conference in Harmonic Analysis, Perugia, Italy, May 2008
- “Journée de Géométrie”, Université Louis Pasteur, Strasbourg, France, October 2006
- “International conference and Instructional workshop on discrete groups”, Beijing, August 2006
- “Geometric group theory, hyperbolic dynamics, and symplectic geometry”, Oberwolfach, July 2006
- “Christmas Workshop”, Karlsruhe Universität, Karlsruhe, Germany, December 2005
- “From topology to arithmetic: in memory of Armand Borel”, ETH, Zürich, Switzerland, June 2005
- “Workshop on Higgs bundles and surface group representations”, Consejo Superior de Investigaciones Científicas, Madrid, Spain, June 2005
- “Geometry and cohomology in group theory”, University of Durham, Durham, UK, July 2003
- “Ergodic properties of geometric group actions”, Schloss Ringberg, Germany, June 2003
- “International Conference on GROUP THEORY: combinatorial, geometric, and dynamical aspects of infinite groups”, Gaeta, Italy, June 2003
- “Aspects of foliations theory in geometry, topology and physics”, ESI, Vienna, Austria, August 2002
- “Géométrie et dynamiques de groupes”, CIRM, Luminy, France, July 2002
- “Asymptotic topology, foliations and dynamical systems”, München, Germany, July 2002
- “Advances in Rigidity”, FIM, ETH Zentrum, Switzerland, June 2002
- “Actions sur les variétés de petite dimension”, Les Diablerets, Switzerland, March 2002
- “Random walks and geometry”, ESI, Vienna, Austria, July 2001
- “Borel Seminar”, Bern, Switzerland, May 2001
- “Rigidity in Dynamics and Geometry” Conference, Cambridge, UK, March 2000
- “Maryland–PennState regional Conference on Dynamical Systems and Related Topics”, State College, PA, U.S.A., October 1997
- Rigidity Conference, ESI, Vienna, Austria, February 1997
- “Maryland–PennState regional Conference on Dynamical Systems and Related Topics”, College Park, MD, U.S.A., March 1994
- I.S.I. Guccia - Conference in Discrete Groups and Ergodic Theory, Palermo, Italy, December 1990
- UCLA, Summer Research Institute, Los Angeles, CA, U.S.A., July 1990
- V Rigidity Conference, Northwestern University, Chicago, IL, U.S.A., March 1990
- IV Rigidity Conference, University of Colorado, Boulder, CO, U.S.A., May 1989

XII Congresso U.M.I., Torino, Italy, September 1987

“Geometrie degli spazi di Banach e questioni connesse”, Milano, Italy, October 1983

“Conference in Harmonic Analysis”, St. Louis, MO, U.S.A., September 1983

XII Congresso U.M.I., Perugia, Italy, September 1983

IV Convegno Nazionale di Analisi Armonica, Roma, Italy, January 1983

IV. COLLOQUIA AND SEMINARS

Séminaire “Groupes et géométrie, Université de Genève, April 2018

Colloquium, Universität Münster, Germany, June 2016

Geometry seminar, Università di Roma “La Sapienza, March 2016

Topology seminar, University of Oxford, November 2015

Geometry seminar, University of Texas at Austin, Austin, TX, U.S.A., April 2015

Colloquium, Universität Bern, Bern, Switzerland, December 2013

Geometry seminar, Princeton University, Princeton, NJ, U.S.A., May 2013

Geometry seminar, Universität Heidelberg, Heidelberg, Germany, December 2012

Geometry seminar, University of Jyväskylä, Jyväskylä, Finland, October 2012

Colloquium, Université de Neuchâtel, Neuchâtel, Suisse, Octobre 2012

“Guillermo Torres” Topology and Geometry Seminar, UNAM, Mexico City, Mexico, August 2012

Séminaire “Géométrie et topologie”, Université de Strasbourg, Strasbourg, France, May 2012

“Geometry and Analysis on Group” seminar, Universität Wien, Vienna, Austria, March 2012

CUNY, Graduate Center, New York, NY, U.S.A., November 2011

Séminaires groupes et géométrie, Geneva, Switzerland, May 2011

Colloquium, Durham, UK, November 2010

Université de Strasbourg, Strasbourg, France, October 2008

Séminaire “Groupes et géométrie, Université de Genève, Genève, Switzerland, December 2007

Università di Milano, Bicocca, Milano, Italy, July 2007 (two talks)

École Polytechnique, Palaiseau, France, May 2006

EPFL, Lausanne, Switzerland, April 2006

Université de Strasbourg, Strasbourg, France, March 2006

Baruch College, New York, NY, U.S.A., October 2005

Columbia University, New York, NY, U.S.A., February 2005

CUNY, Graduate Center, New York, NY, U.S.A., February 2005

ETH, Geometry Seminar, Zürich, Switzerland, January 2005

Université de Fribourg, Fribourg, Switzerland, January 2005

Universität Wien Seminar, Wien, Austria, March 2004

Universität Wien Colloquium, Wien, Austria, March 2004

Universität Bern Colloquium, Bern, Switzerland, November 2003

Universität Basel, Basel, Switzerland, June 2003

Université de Paris Sud, Orsay, France, May 2003

Université de Strasbourg, Strasbourg, France, March 2003

Université de Strasbourg, Strasbourg, France, December 2001

Yale University, New Haven, CT, U.S.A., October 2001

Université d'Avignon, Avignon, France, April 2001

Université de Strasbourg, Strasbourg, France, April 2001

Oklahoma State University Colloquium, Stillwater, OK, U.S.A., October 2000

Université de Strasbourg, Strasbourg, France, May 2000

Université de Neuchatel, Neuchatel, Switzerland, March 2000

University of Manchester, Manchester, UK, January 2000

ETH, Zürich, Switzerland, November 1999 (two talks)

Université de Lausanne, Lausanne, Switzerland, November 1989

Université de Neuchatel, Neuchatel, Switzerland, November 1998

Università di Roma, Tor Vergata, Roma, Italy, March 1998

Università di Napoli, Napoli, Italy, March 1998

CIMAT, Guanajuato, Mexico, January 1998

Università di Roma, Tor Vergata, Roma, Italy, June 1997

CIMAT, Guanajuato, Mexico, June 1996

CUNY, Graduate Center, New York, NY, U.S.A., November 1994

University of Chicago, Chicago, IL, U.S.A., May 1994

University of Pennsylvania, Philadelphia, PA, U.S.A., December 1993

University of Minnesota, Minneapolis, MN, U.S.A., May 1993

University of Maryland, College Park, MD, U.S.A., March 1992

University of Oregon Colloquium, Eugene, OR, U.S.A., March 1992

University of Iowa, Iowa City, IA, U.S.A., February 1992

University of Tennessee at Knoxville, Knoxville, TN, U.S.A., February 1992

Ohio State University, Columbus, OH, U.S.A., February 1991

CUNY, Graduate Center, New York, NY, U.S.A., November 1990

Bryn Mawr Colloquium, Bryn Mawr, PA, U.S.A., April 1990

Tufts University, Boston, MA, U.S.A., February 1989

III. Advising and Teaching

A. ADVISING

- I. PH. D. STUDENTS: (8) Lisa Ricci, ETH, from July 2018
- (7) Yannick Krifka, ETH, from February 2016
 - (6) Claire Burrin, ETH 2016, then Hill Assistant Professor at Rutgers University at New Brunswick
 - (5) Beatrice Pozzetti, ETH, 2014, now postdoc at Warwick University, then from April 2017 Junior Professor at the Universität Heidelberg
 - (4) Pascal Rolli, ETH, 2014
 - (3) Tobias Strubel, ETH, 2011, (co-advised with M. Burger)
 - (2) Tobias Hartnick, ETH, 2010, now Assistant Professor at Technion, Haifa
 - (1) Florence Newberger, Ph.D. 1998, University of Maryland, now Associate Professor at California State University, (co-advised with D. Rudolph)

II. POSTDOCS: (9) Matthew Cordes, Ph.D. 2016 (current)

- (8) Nir Lazarovic, Ph.D. 2015 (now Lecturer at the Technion, Haifa)
- (7) Robert Kucharczyk, Ph.D. 2015 (now Postdoc at the Universität Bonn)
- (6) Mentor Stafa, Ph.D. 2013 (now Professor at Tulane University)
- (5) Alessandro Sisto, Ph.D. 2012 (now Assistant Professor at ETH)
- (4) Cristina Pagliantini, Ph.D. 2011
- (3) Gabriele Link, Ph.D. 2002 (now Lecturer at Karlsruhe Institut für Technologie)
- (2) Stefan Wenger, Ph.D. 2003 (now Full Professor at the Université de Fribourg)
- (1) Anna Wienhard, Ph.D. 2004 (now Full Professor at the Universität Heidelberg and at CalTech)

II. BACHELOR AND MASTER STUDENTS: Mario Huber, Gian Hail, Manuel Cavegn, Christian Sbardella, Sarah Tischhauser, Pascal Rolli (ETH Medal for the best Master thesis), Claire Burrin, Manuel Herzog, Carlos Alberto de la Cruz Mengual, Robin Leroy, Nicolaus Heuer, Jakob Dambon, Patrick Hnilicka, Patrick Link, Lluís Usó i Cubertorer, Philip Föhn

B. ADVISING (other than research direction)

- I. UNDERGRADUATE: (i) *Advise-5er*: University of Maryland, 1996–97, 1997–98 and 1998–99, 5 students each year
- (ii) *Math major advisor*: University of Maryland, 1996/97 and 1997/98, approximately 7–10 students each semester

II. GRADUATE: *Graduate Student Advisor*, University of Maryland

C. TEACHING

GRADUATE COURSES:

Lie Groups I	ETH, Fall 2011 and Fall 2017; University of Pennsylvania, Fall 1990
Lie Groups II	ETH Spring 2012; University of Pennsylvania, Spring 1991
Symmetric spaces	ETH, Spring 2018
Introduction to Lie Groups	Universität Basel, Fall 2005 and Spring 2006
Lattices in SL_n	Universität Basel, Spring 2005
Lattices and Bounded Cohomology	Universität Basel, Fall 2004
Bounded Continuous Cohomology: a New Tool in Geometry and Group Theory (Rigidity of Group Actions on the Circle)	ETH, Summer 2004
Bounded cohomology I	ETH, Winter 2002
Bounded cohomology II	ETH, Summer 2003
Dynamical Systems	University of Maryland, Fall 1998
Foundations of Topology	University of Maryland, Fall 1997
Functional Analysis	University of Maryland, Fall 1995
Ergodic Theory and Lie Group Actions	University of Maryland, Fall 1994

STUDENT SEMINARS:

Symmetric spaces of non-compact type	ETH, Fall 2018
Geometric group theory	ETH, Spring 2014
Geometric group theory	ETH, Fall 2014
Geometric group theory	ETH, Fall 2013
Trees, lattices and simple groups	ETH, Fall 2012
Special cube complexes	ETH, Spring 2012
p -adic analysis compared to real	ETH, Fall 2011
Application of Bounded Cohomology	ETH, Winter 2006

UPPER LEVEL UNDERGRADUATE COURSES:

Multilinear algebra and applications (MATL)	ETH Spring 2014 and Spring 2017
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Measure and Integration	ETH, Spring 2008
Introduction to Lie Groups	ETH, Spring 2007
Introduction to Bounded Continuous Cohomology	ETH, Winter 2006
Algèbre et Analyse	Université de Strasbourg, Spring 2002
Number Theory	University of Maryland, Spring 1995 and Spring 2000
Probability and Statistics	University of Maryland, Fall 1999
Linear Algebra for Math Majors	University of Maryland, Spring 1998
Algebraic Structures	University of Maryland, Fall 1997
Complex Variables for Scientists and Engineers	University of Maryland, Spring 1997
Differential Geometry of Curves and Surfaces	University of Maryland, Fall 1996
Linear Algebra for Scientists and Engineers	University of Maryland, Spring 1996
Complex Analysis	University of Pennsylvania, Fall 1989

HONOR COURSES:

Concepts and Applications of Advanced Mathematics for non-Scientists	University of Maryland, Fall 1998 and Spring 2000
Honor section of Ordinary Differential Equations (implemented with <i>Mathematica</i>)	University of Maryland, Spring 1998
Honor section of Multivariable Calculus (implemented with <i>Mathematica</i>)	University of Maryland, Spring 1996 and Fall 1996

LOWER LEVEL UNDERGRADUATE COURSES:

Analysis I (ITET)	ETH, Fall 2014
Analysis I and II (ITET)	Fall 2015/Spring 2016 and Fall 2018/Spring 2019
Analysis III (MAVT, MATL)	ETH, Fall 2018, 2015, 2014, 2013 and 2012
Analysis I and II (INFK)	ETH, Fall 2010/Spring 2011
Analysis III (ITET)	ETH, Fall 2009, Fall 2008 and Fall 2007
Complex Analysis (ITET)	ETH, Spring 2010, Spring 2009 and 2008
Analysis (Course and exercise sessions)	Université de Strasbourg, Fall 2005
Analysis in Several Variables (Course and exercise sessions)	Université de Strasbourg, Spring 2004
Sequences and Series for Life Scientists	Université de Strasbourg, Spring 2003

Analysis in Several Variables (Exercise sessions)	Université de Strasbourg, Spring 2003
Ordinary Differential Equations (implemented with <i>Mathematica</i>)	University of Maryland, Spring 1999, Fall 1994 and Fall 1993
Multivariable Calculus (implemented with <i>Mathematica</i>)	University of Maryland, Fall 1999, Spring 1994 Spring 1998 and Spring 1996
Precalculus (with graphic calculators)	University of Maryland, Summer 1996
Multivariable Calculus and Applications II	University of Pennsylvania, Spring 1991 and Spring 1990
Multivariable Calculus and Applications I	University of Pennsylvania, Fall 1989
Calculus	University of Chicago, 1985–89

IV. Services

COMMITTEES

Hiring Committee Université Blaise Pascal, Clermont-Ferrand, France (Comité de Sélection, Sec. 25), 2017

Hiring Committee Université de la Bourgogne, Dijon, France (Comité de Sélection, Sec. 25), 2017

Hiring Committee Université de Paris-Est, Créteil, France (Comité de Sélection, Sec. 25), 2016

Hiring Committee Université de Montpellier, Montpellier, France (Comité de Sélection, Sec. 25), 2016

Hiring Committee Université de Toulouse, Toulouse, France (Comité de Sélection, Sec. 25), 2015

Hiring Committee Université de Tours, Tours, France (Comité de Sélection, Sec. 25), 2015

Evaluation Committee, Insitute de Mathématiques de Bordeaux, Bordeaux, France, 2015

Hiring Committee Université de Strasbourg, Strasbourg, France (Commission de Spécialistes, Sec. 25), 2014

Hiring Committee Université de Orléans, Orléans, France (Commission de Spécialistes, Sec. 25), 2012

Member of several Ph.D. Thesis Committees, University of Maryland, Université de Strasbourg, Université de Mulhouse (Président de la commission), Chalmers University (Faculty opponent) and Université de Paris Sud, 1994–2015

Hiring Committee, Professor, ETH, 2006/07, 2011/12 and 2016/17

Hiring Committee Assistant Professor, ETH, 2006/07, 2010/11 and 2015/16

Hiring Committee Postdocs, ETH, since 2010

Master Admission Committee, ETH, from 2007 to present

Doktoratausschuss, ETH, from 2015 to present

Nachdiplomkommission, ETH, from 2015 to present

Zürich Colloquium Committe, ETH, since 2015 to present

Raumplanungskommission, ETH, since 2011

Bibliotekskommission, ETH, since 2015

Maturandentage, ETH, 2009 and 2010

Expertin for Maturaprüfungen, Switzerland, since 2013

Coorganizer of the preparation for the evaluation of the Graduiertekolleg, Humbolt University in Berlin, September/October 2006

Member of Graduate Admissions/Financial Aid/Recruiting Committee, University of Maryland, 1996/97 and 1997/98

Member of the Resource Group for the Graduate Education Task Force, University of Maryland, 1996

Member of the Arbitrary and Capricious Grading Review Committee, University of Maryland, 1995/1996 and 1996/97

Member of several M.A. Thesis Committees, University of Maryland

Member of several Oral Committees, University of Maryland

Hiring Committees, University of Maryland, 1994-1998, ETH, 2006/07

Salary Committee, University of Maryland, 1994, 1996

Policy Committee, University of Maryland, 1993/94, 1994/95

SEMINARS, CONFERENCES, WORKSHOPS AND OUTREACH ACTIVITIES ORGANIZED

Scientific Committee, LabourieFest, Université de Nice, Nice, 2021

Committee for the Bernays Lecture ETH, since 2015

BurgerFest, FIM, ETH Zürich, Switzerland, 29 June – 3 July 2020

Scientific committee CharneyFest, CIRM, Luminy, France, 1 – 5 June 2020

Workshop “Quasi-isometries”, Ventotene, Italy, 9–14 September 2019

“goMATH, Frauen machen Mathematik”, ETH, Switzerland, 11 – 22 March 2019

“Topology and dynamics in the Swiss Alps”, Les Diablerets, Switzerland, 2-7 december 2018

Workshop “Moduli spaces”, Ventotene, Italy, 11-16 September 2017

Scientific committee VI Young Geometric Group Theory meeting, Southampton University, Spring 2017

Workshop “Group actions and cohomology in non-positive curvature”, Newton Institute, June 2017

Special semester “Non-Positive Curvature Group Actions and Cohomology”, Newton Institute, Cambridge, UK, January–June 2017

Workshop “Groups acting on $CAT(0)$ spaces”, M.S.R.I., Fall 2016

Workshop “Manifolds and groups”, Ventotene, Italy, 7–12 september 2015

Introductory Workshop: “Dynamics on Moduli Spaces of Geometric Structures”, M.S.R.I., January 2015

Workshop “Analytic and Geometry Group Theory”, Ventotene, Italy, 9-14 September 2013

Studienwoche, ETH, 2009 and 2011

Math Circle, two sessions, one at junior high and one at high school level, 2007/2011

Workshop “Isoperimetric inequalities in Lie groups”, University of Basel, 30–31 March 2005

Conference “Bounded Cohomology, Harmonic Maps and Higgs Bundles”, Strasbourg and Basel, 14–19 March 2005.

Special session “Automorphism groups of geometric structures” at the American Mathematical Society Eastern Section meeting, College Park, MD, April 1997

Showing of the movie “The Shape of Space” by Jeff Weeks: attendance of over 1000 people, from high school students to faculty members, University of Maryland at College Park, 1997

LOCAL SEMINARS ORGANIZED

Reading seminar “Geometric group theory”, ETH, Fall 2013, Spring 2014 and Fall 2015

Reading seminar “Trees, lattices and simple groups”, ETH, Fall 2012

Reading seminar “Special cube complexes and the virtual Haken conjecture”, ETH, Spring 2012

Reading Seminar “The mathematics of LEGO”, ETH, Winter 2010

Geometry Seminar, ETH, since Spring 2008

Algebra and Topology Seminar, ETH, since Fall 2007

Reading Seminar “Selberg trace formula”, ETH, Fall 2007

Reading Seminar “Patterson–Sullivan theory”, ETH, Summer 2007

Reading Seminar Basel–Zürich, “Higher Teichmüller theories”, ETH, Winter 2006

“Graduate colloquium (Zürich Graduate School in Mathematics)”, ETH, 2003-today

“Graduate students colloquium (Graduate School in Arithmetic and Geometry)”, ETH, 2002/03

Reading seminar “Symplectic group theory”, ETH, Winter 2002

Reading Seminar “Introduction to arithmetic groups”, ETH, Winter 2001

Geometry/Topology Seminar, University of Maryland, Spring 1994, 1994/95, 1995/96

Colloquium, University of Pennsylvania, 1990/91

OTHER SCIENTIFIC ACTIVITIES

Member of the Swedish Vetenskapsrådet

Inner Board Member on the Irish Research Council Postdoctoral International Assessment Board

Reviewer for several grants (including National Science Foundation, U.S.A., ISF Israel, DFG Germany, ANR France)

Reviewer for Zentralblatt für Mathematik

Referee for several scientific journals (among which *Inventiones Math.*, *Geom. Funct. Anal.*, *Geom. & Top.*, *Duke Math. Jour.*, *Math. Ann.*, *J. Funct. An.*, *J. Fourier An. and Appl.*, *Trans. AMS*, *Monatsh.*, *Adv. Geom.*, *J. Lie Theory*, *Transf. Groups*, *Anal. & Geom. in Metric Spaces*, etc.)