Curriculum Vitæ of Stefano Francaviglia

9th January 2018

Personal Informations

Name:	Stefano Francaviglia
Born in:	Pistoia (Italy), August 19, 1973
Nationality:	Italian
Address:	Dipartimento di Matematica Università di Bologna P.zza Porta S. Donato 5, 40126 Bologna, Italy
Phone:	Office: +39 051 2094468
e-mail:	stefano.francaviglia@unibo.it
web:	`http://www.dm.unibo.it/~francavi`
Languages known:	Catalan, English, French, Italian, Portuguese, Spanish
Research fields:	Geometry and Topology of low-dimensional manifolds. Geometric Group Theory. Dynamics.

Positions and Titles

2017 March. Qualification for Full Professor positions (Abilitazione Scientifica Nazionale).

2014 September, 15 - today. Associate Professor at the Dept. of Math. of the University of Bologna.

2008 Nov - 2014 Sept. Researcher Professor at the Dept. of Math. of the University of Bologna.

2007 Feb - 2008 Oct. Research fellow at the Dept. of Appl. Math. of the University of Pisa.

2005 Feb - 2007 Jan. *Marie Curie Intra European Fellowship* at the Dept. of Math. of the Universitat Autònoma de Barcelona.

2004 May, 21. PhD in Mathematics at the Scuola Normale Superiore of Pisa, approved *cum laude*[1]; Thesis: *Hyperbolicity equations for cusped 3-manifolds and volume-rigidity of representations*; advisor: Prof. Carlo Petronio (Dept. Appl. Math. Univ. Pisa).

2003 Jul - 2005 Feb. Research fellowship at the Dept. of App. Math. of the University of Pisa.

2003 Jan - June. Visiting student of the C.R.M. de Barcelona, as a participant of the European Project *Marie Curie training site*.

2002 March - June. Visiting student of the Universitat Autònoma de Barcelona, under the direction of Prof. Joan Porti (Univ. Aut. Barcelona), as a participant of the European Project *Complex Analysis and Analytic Geometry* (CHRXCT 980163).

1999 - 2001. PhD student at the Scuola Normale Superiore of Pisa.

1993 - 1998. Degree in Mathematics at the Dept. Math. of the University of Pisa, approved *cum laude*; Thesis: *Foliations on 3-manifolds*, advisor: Prof. Riccardo Benedetti (Dept. Math. Univ. Pisa).

Research projects and grants

2017-2021 *GHAIA (Geometric and Harmonic Analysis with Interdisciplinary Applications).* Type H2020-MSCA-RISE Action. (Network of research centres with staff exchange purposes, with University of Bologna as Primary pole.) Role: Coordinator. Principal Coordinator: Prof. Giovanna Citti (Univ. Bologna). Amount 1.782.000,00 Euros.

2011-2014 *Geometria e topologia delle varietà in bassa dimensione.* Type: FIRB (code RBFR10GHHH) Italian National Grant for Young Research Teams. Role: Researcher. National team-leader: Dr. Bruno Martelli (Univ. of Pisa). Amount 610.000 Euros.

2009-2010. *Geometria di gruppi e varietà.* Type: Azione integrata Italia-Spagna. Role: Researcher. Scientific advisors: Prof. Carlo Petronio (Univ. Pisa) and Prof. Joan Porti (UAB, Bellaterra, Sp). Amount: 22.560 Euros.

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[1] Jury: Prof. Giuseppe Tomassini (SNS Pisa) President; Prof. Riccardo Benedetti (Pisa Univ.), Prof. Paolo Lisca (Pisa Univ.), Prof. Wolfgang Metzler (Frankfurt Univ.), Prof. Bernard Perron (Univ. de Bourgogne), Prof. Carlo Petronio (Pisa Univ.), Prof. Bruno Zimmermann (Trieste Univ.).

Thesis referees: Prof. Jean-Pierre Otal (ENS Lyon), Prof. Carlo Petronio (Pisa Univ.), Prof. Joan Porti (UAB Barcelona).

02/2007 - 01/2008. *Geometry of Groups and Manifolds.* Type: Marie Curie Re-integration Grant. Role: Principal Researcher. Amount: 40.000 Euros.

01/2003 - 12/2003. *Flussi di metriche e convergenze di Varietà.* Type: INdAM Project. Role: Researcher. Principal researcher: Prof. Carlo Petronio. Amount: 12.000 Euros.

Students

PhD

Gianluca Faraco. Thesis *The Geometry Awakens On the relationship between holonomy and hyperbolic structures* Univ. of Parma. (Defence scheduled in early 2018)

Alessio Savini. Thesis *Numerical invariants and rigidity for lattices in rank one Lie groups.* Univ. of Bologna. (Defence scheduled on May, 2018)

Lorenzo Ruffoni. Thesis *The geometry of branched complex projective structures on surfaces.* Defended *cum laude* 04/05/2017. Univ. of Bologna.

Master (Laurea Magistrale)

Davide Dobrilla. Thesis *Variazioni isoperiodiche di superfici di traslazione* defended in 2017/03/31. 110/110 *cum laude.* Univ. of Bologna.

Gianluca Faraco. Thesis *Struttura Kahler degli spazi di Teichmuller* defended in 2014/09/26. 110/110 *cum laude.* Univ. of Bologna.

Lorenzo Ruffoni. Thesis *Cube complexes and virtual fibering of 3-manifolds"* defended on 2013/07/19. 110/110 *cum laude.* Univ. of Bologna.

Simone Marzioni. Thesis *Pants homology for surfaces* defended on 2013/03/22. 110/110 *cum laude.* Univ. of Bologna.

Degree (Laurea Triennale)

Guido Marinoni. Thesis *Grafi e gruppi liberi* defended on 2016/12/16. 110/110 *cum laude.* Univ. of Bologna.

Simone Giulietti. Thesis *Teoria di Morse* defended in 2015/03/27. Univ. of Bologna.

Lorenzo Zuffi. Thesis *Gruppi di omotopia di ordine superiore* defended in 2014/09/26. 110/110 *cum laude*. Univ. of Bologna.

Filippo Miti. Thesis *Le varietà di Seifert* defended on 2014/09/26. 110/110 *cum laude*. Univ. of Bologna.

Alex Casella. Thesis *Triangolazioni ideali di complementari di nodi in S^3* defended on 2013/07/19. 110/110 *cum laude*. Univ. of Bologna. (now PhD student at Sydney.)

Davide Dobrilla. Thesis *Rivestimenti ramificati e prime-degree conjecture* defended on 2013/07/19. 99/110. Univ. of Bologna.

Teaching

2017-2018 "Geometry and Algebra", degree in Engineering (1st year courses.) "Topology", degree course in Mathematics. Univ. of Bologna.

2016-2017 "Geometry and Algebra", degree in Engineering (1st year courses.) "Mathematical methods", master course in Engineering, (in English). "Topology", degree course in Mathematics. Univ. of Bologna.

2015-2016 "Geometry and Algebra", degree in Engineering (1st year courses.) "Mathematical methods", master course in Engineering, (in English). "Riemannian Geometry", master course in Mathematics. Univ. of Bologna.

2014-2105 Four courses "Geometry and Algebra", degree in Engineering (1st year courses.) Univ. of Bologna.

2013-2104 Courses "Geometry 1" degree in Engineering, "Geometry 1" degree in mathematics. (1st year courses.) Univ. of Bologna.

2012-2013 Courses "Topologia" and "Geometria superiore" (2nd, and 5ft year of degree and specialistic degree in mathematics) and a course of general mathematics (degree in Informatics). Univ. of Bologna.

2011-2012 Courses "Geometry 1", "Geometry 2" and "Geometria superiore" (1st, 2nd, and 5ft year of degree and specialistic degree in mathematics) and a course of general mathematics (degree in Informatics for management). Univ. of Bologna.

2010-2011 Master course (5th year of specialistic degree in mathematics) of Riemannian Geometry. Univ. of Bologna.

2010-2011 Master course (4th year of specialistic degree in mathematics) of differential forms and co-homology. Univ. of Bologna.

2009-2010 Master course (5th year of specialistic degree in mathematics) of Riemannian Geometry. Univ. of Bologna.

2009-2010 Master course (4th year of specialistic degree in mathematics) of differential forms and co-homology. Univ. of Bologna.

2008-2009. Degree course of geometry (first year of degree in mathematics) Univ. of Bologna.

2008. Doctorate minicourse (7 lectures) of hyperbolic geometry at the UFF of Niterói (RJ, BR.)

2008. Complementary teaching activity at the Faculty of engeenering of te Univesity of Pisa (general mathematics.)

2004. Tutor of geometry at the Polo Universitario dell'Università di Pisa nella Casa Circondariale Don Bosco (Prison of Pisa.)

1999-2003. Degree courses of Analysis, Geometry and Algebra, as assistant teacher of: Prof. Marco Forti (Dept. App. Math, Univ. of Pisa), Prof. Sebastiano Francaviglia (Dept. App. Math, Univ. of Pisa), Prof. Mariano Giaquinta (Scuola Normale Superiore, Pisa), Prof. Carlo Mantagazza (Scuola Normale Superiore, Pisa), Prof. Carlo Petronio (Dept. App. Math, Univ. of Pisa.)

2001. Collaboration to stages for undergraduate students organized by U.M.I. for the project "Italian Math Olympic games".

Short stays in research centers

14/06/2015 - 18/07/2015 Guest at FRUMAM Marseille.

25/05/2104 - 21/06/2014 CRM De Giorgi (PISA)

01/07/2013 - 18/11/2013 FRUMAM Marseille.

11/11/2012 - 23/11/2012 CRM Barcelona.

2012, 6-18/08 UFRJ (Rio de Janeiro, BR)

2012, 4-31/04 IHP (Paris, FR)

2011, 15-19/11 Universitè Paris Sud (Orsay, FR)

31/10/2010 - 01/03/2011. UFF (Niterói, Rio de Janeiro, BR)

06/09/2009 - 28/02/2010. UFF (Niterói, Rio de Janeiro, BR)

2009, 08-14/03. Southampton University (UK)

2009, 03/02-03/03. UFF (Niterói, Rio de Janeiro, BR)

2008, 01-31/08. UFF (Niterói, Rio de Janeiro, BR)

2008, 08-21/06. Guest — research in pairs — at the C.R.M. de Barcelona (Spain)

2008, 25/02-25/03. Laboratoire Emile Picard, Université de Toulouse (France)

2008, 07-30/01. IMPA (Rio de Janeiro, BR) and UFF (Niterói, BR)

2007, 21/11-12/12. Dept. of Math. of UAB (Spain)

2007, 15-25/10. Dept. of Math. of UAB (Spain)

2007, 26/07-03/08. Dept. of Math. of UAB (Spain)

2007, 25/06-05/07. Dept. of Math. of UAB (Spain)

2007, 02-13/05. Dept. of Math. of UAB (Spain)

2007, 26/03-12/04. Dept. of Math. of UAB (Spain)

2007, 11-22/03. Laboratoire Emile Picard, Université de Toulouse (France)

2007, 04/02-03/03. CIRM of Luminy (Marseille, France)

2006, 31/10-05/11. Dept. of Math. Univ. of Utah (Salt Lake City, Utah, USA)

2006, 23-30/10. Dept. of Math. of The Univ. of Texas at Austin (Texas, USA)

2006, 09-22/10. The Ohio State University (Columbus, OH, USA)

2006, 18-28/04. Institut Fourier, Université de Grenoble (FR)

2005, 02-07/05. Laboratoire Emile Picard, Université de Toulouse (FR)

2005, 06-13/03. ETH of Zurich (CH)

2004, 10/03-01/04. Dept of Math. Universitat Autònoma de Barcelona (SP)

2004, 28/01-01/02. Dept. of Math. of UQAM (Montreal, Quebec)

2004, 16-28/01. Courant Institute of Mathematical Sciences (New York, USA)

Conferences

Organized

2017 11-16/09 *Moduli spaces* (Ventotene, LT Italy)

2016 29/08-2/09 *Special session "Geometric Topology and Dynamics", first joint meeting Brazi-Italy in mathematics* (IMPA, Rio de Janeiro)

2015 7-12/09 *Manifolds and Groups* (Ventotene, LT Italy)

Active participations

2016 29/08-2/09 *Special session "Geometric Topology and Dynamics", first joint meeting Brazi-Italy in mathematics* (IMPA, Rio de Janeiro) **Speaker**.

2016 21-23/01 *Varietà reali e complesse* (SNS, Pisa) **Invited speaker**

2014 30/06 - 4/07 *First Joint International Meeting of the italian and spanish mathematical societies* (Bilbao, E) **Invited speaker**

2014, 9-13/06 *Workshop Teichmller theory and surfaces in 3-manifolds* (CRM De Giorgi, Pisa, It) **invited speaker**

2013 1-18 July *The geometry of Outer Space* (FRUMAM, Marseille, FR) **invited speaker**

2013 24-28 June *Low-dimensional Topology and Geometry in Toulouse* (UPS Touluse, FR) **Speaker**

2012 19-24 November *Automorphisms of free groups* (CRM Barcelona, E) **Speaker**

2011, February 21 - 25 *TopDin 2011. Workshop em Topologia e Dinâmica* (UFF, Niteroi, BR.) **Invited Speaker.**

2011, Jan-Feb *Grupo de Trabalho "Espaço de Teichmüller e metrica de Weil-Petersson"* (UFF, Niterói, BR) **Speaker.**

2010, January 18 - 22 *TopDin 2010. Workshop em Topologia e Dinâmica* (UFF, Niteroi, BR.) **Invited Speaker.**

2008, June 1 - 7. *UltraMath 2008, Applications of Ultrafilters and Ultraproducts in Mathematics* (Pisa, IT.) **Speaker.**

2007, March 7 - 13. *Représentations de groupes de surfaces et géomeétrie en dimension 3* (Toulouse, Fr.) **Invited Speaker.**

2007, February 12 - 16. *Géométrie des groupes, semaine 2: Outre espace et espace de Teichmüller* (C.I.R.M. Lumniy, Fr.) **Invited Speaker.**

2006, June 6 - 9. *Atelier: Automorphismes et Substitutions* (Marseille, FR.) **Invited Speaker**.

2006, May 22 - June 2. *Knots, Groups and 3-manifolds in Marseille* (Marseille, FR.) **Speaker**.

2005, March 14 - 19. *Conference on bounded cohomology, harmonic maps and Higgs bundles* (Strabourg, FR and Basel, CH.) **Main Speaker**.

2004, September 27 - October 1. *Progressi Recenti in Geometria Reale e Complessa* (Levico Terme, Trento IT.) **Speaker**.

Other participations

2017 11-16/09 *Moduli spaces* (Ventotene, LT Italy)

2017 4-10/06 *Geometric topology in Cortona* (Palazzone SNS, Cortona, I)

2015 13-17/07 *Impacts de la gomtrie des groupes* (CIRM, Luminy)

2015 6-10/07 *Dynamics and Geometry in the Teichmuller Space* (CIRM, Luminy)

2014 26/05 - 20/06 *Intensive period on Teichmller theory and surfaces in 3-manifolds* (CRM De Giorgi, Pisa, IT)

2013 9-16 September *Analytic and Geometric Group Theory* (Ventotene, It)

2013 3-7 June *Geometric Topology in Cortona* (Cortona, It)

2013 28 February - 03 March *Workshop "Varietà reali e complesse: geometria, topologia e analisi numerica* (SNS, Pisa, It)

2012 12-16 November *Automorphisms of free groups* CRM Barcelona (SP)

2012 2 - 6 April *Laminations et Dynamique symbolique* (CIRM, Luminy, FR.)

2012 26 - 30 March *Workshop on Immersed surfaces in 3-manifolds* (IHP program Geometry and analysis of surface group representations January-March 2012, Paris FR)

2012 5-9 March *Surface groups in Paris* (IHP program Geometry and analysis of surface group representations January-March 2012, Paris FR)

2012 6 - 10 February *Workshop on Moduli spaces of representations* (IHP program Geometry and analysis of surface group representations January-March 2012, Paris FR)

2011 28 June - 1 July *Recent advances in Geometric Group Theory* (Univ. of Southampton, UK)

2010 2-7 August *Geometry topology and dynamics in negative curvature* (Raman Research Institute, Bangalore, India)

2010 5-9 July *Quantum geometry and topology* (C.I.R.M., Luminy, FR)

2010 28 June - 3 July *Teichmüller Theory and its Interactions in Mathematics and Physics* (C.R.M. Bellaterra, SP)

2010 21-25 giugno *Vogtmann fest* (C.I.R.M. Luminy, FR)

2009 1-5 June *Des groupes de tresses aux espaces de Teichmuller* (CIRM Luminy, FR)

2009 February 9 - 13. *Topologia e Dinâmica* (UFF, Niteroi, BR)

2009 February 4 - 19. *Grupo de Trabalho Uniformização para Folheações por Curvas* (UFF, Niteroi, BR)

2008 July 7-12. CIME course *Holomorphic Dynamical Systems* (Cetraro, Cosenza, IT)

2007 November 12-16. *Topics in Teichmuller Theory and Kleinian Groups* (MSRI, Berkeley, CA, USA)

2007 November 05-09. *Topics in Geometric Group Theory* (MSRI, Berkeley, CA, USA)

2007 July 16-20. *Hyperbolic structures on 3-manifolds and large scale geometry of Teichmüller space* (Warwick, UK)

2007 July 13-14. *David Epstein 70th Birthday Celebration* (Warwick, UK)

2007 July 9-12. *3-manifold geometry and topology* (Warwick, UK)

2007 May 20-26. *Braids and their ramifications* (Cortona, It)

2007 May 4-5. *Second Barcelona Weekend in Group Theory* (Barcelona, Sp.)

2007 February 26 - March 2. *Géométrie des groupes, semaine 4: Aspects combinatoires, algorithmiques et cryptographiques* (C.I.R.M. Lumniy, Marseille FR)

2007 February 19-23. *Géométrie des groupes, semaine 3: Aspects d'hyperbolicité, groupes de convergence* (C.I.R.M. Lumniy, Marseille FR)

2007 February 5-9. *Géométrie des groupes, semaine 1: Marches aléatoires sur les groupes* (C.I.R.M. Lumniy, Marseille FR)

2006 October 27-29. *Texas Geometry and Topology Conference* (Houston, Texas, USA)

2006 September 4-8. *Groups in Geometry and Topology* (Malaga, ES)

2006 August 22-30. *ICM Madrid 2006* (Madrid, ES)

2006 March 13-17. *Workshop on 3-manifolds after Perelman* (Edinburgh, UK)

2005 December 7-9. *Trois juournées de topologie à Orsay* (Orsay, FR)

2005 June 6-24. *Summer school and Conference on Geometry and Topology of 3-Manifolds* (Trieste, IT)

2005 April 8-9. *XI Encuentro de Topología* (Puerto de la Cruz, SP)

2005 February 23-26. *Workshop on 3-manifolds and complexity* (Cortona, IT)

2004 August 9-11. *Workshop on Three-Dimensional Geometry and Topology* (Oxford, UK)

2004 July 12-15. *Premier congrès Canada-France des sciences mathématiques* (Toulouse, FR)

2004 June 14 - July 2. *Non-positively curved geometries, discrete groups and rigidities* (Grenoble, FR)

2004 March 12-13. *XI Encuentro de Topología* (Barcelona, SP)

2003 August 3-8. *Spaces of Kleinian Groups and Hyperbolic 3-Manifolds* (Cambridge, UK)

2003 May 1-3. *X Encuentro de Topología* (Bilbao, SP)

2002 September 12-20. *Advanced Course on Geometric 3-Manifolds* (Barcelona, SP)

2002 June 19-22. *Braids in Cortona* (Cortona, IT)

2002 June 15-17. *The Topology of 3-manifolds* (Pisa, IT)

2002 June 12-16. *First Joint Meeting AMS-UMI* (Pisa, IT)

2001 June 3-9. *Perspectives in Low Dimensional Geometry* (Cortona, IT)

2000 May 29 - June 9. *Foliations: Geometry and Dynamics* (Warsaw, POL)

1999 June 25 - July 9. *Invariants de noeuds et de varietes de dimension 3* (Grenoble, FR)

1999 June 21-24. *Topologie en petite et grande dimension* (Orsay, FR)

1999 June 16-19. *The Joint Conference of the 5th Barcelona Logic Meeting and the 6th Kurt Gödel Colloquium* (Barcelona)

Talks given

2016, August 1 "The theory of train tracks and the conjugacy problem for automorphisms of free groups" (Special session "Geometric Topology and Dynamics" First joint Meeting SBM-UMI, Rio de Janeiro)

2016, February 4 "On the topology of moduli spaces of branched projective structures" (Mathematisches Institut, Heidelberg, D)

2016, January 4 "Dinamica della foliazione isoperiodica dello spazio dei moduli delle superfici di traslazione" (Invited talk at the Workshop "Varietà reali e complesse", SNS, Pisa)

2015, June 19 "Espaces des modules des surfaces projectives ramifies." (FRUMAM, Marseille)

2014, July 1. "Moduli spaces of branched projective structures" (Invited talk at the converence "First joint international meeting of the italian and spanish mathematical societies" Bilbao, E)

2014, June 13. "Moduli spaces of (branched) projective structures" (Invited talk at the workshop "Teichmller theory and surfaces in 3-manifolds" CRM De Giorgi, Pisa)

2013, July 4. "Metric properties of Outer Space" (Invited talk at the workshop "The Geometry of Outer Space" July 2013 FRUMAM Marseille. Fr)

2013, June 24. "Branched Projective structure with (quasi)-Fuchsian holonomy" (Talk at the conference "Low-dimensional Topology and Geometry in Toulouse 24th-28th of June 2013")

2012, November 20. "The pressure metric on Outer Space" (Invited talk in the Research program on Automorphism of Free Groups: Algorithms, Geometry and Dynamics, at the CRM of Barcelona, E)

2012, August 16. "Norma de Gromov e complexidade asintotica de variedades" (UFRJ, Rio de Janeiro)

2012, July 5. "Strutture proiettive ramificate su superfici" (Univ. of Pavia)

2011, June 1. "Strutture proiettive ramificate su superfici" (Univ. of Pisa)

2011, May 27. "Curvatura negativa su spazi metrici" (Talk series "Topics in mathematics", Univ. of Bologna)

2011, May 4. "Il teorema di Royden per l'outer space" (La Sapienza, Roma)

2011, February 21. "Triangulaçoes, norma de Gromov e conjetura de Ehrenpreis" (invited talk at the conference "TopDin 2011. Workshop em topologia e dinamica", UFF, Niterói, RJ Brasil)

2010, July 1. "The Royden theorem for outer space" (UAB, Barcelona, SP)

2010, May 5. "L'outer space di un gruppo libero" (Univ. of Pisa)

2010, February 4. "Rigidez e deformaçõeis de variedades hiperbólicas" (UFBA, Salvador de Bahia, BA, BR)

2010, January 21. "Isomorphisms of good spaces and good spaces for groups" (invited talk at the conference "TopDin 2010. Workshop de topologia e dinamica", UFF, Niterói, RJ BR)

2009, November 19. "Hyperbolic volume of representations and Fuchsian groups" (DMat UFPE, Recife, PE, BR)

2009, October 23. "Deformations of hyperbolic manifolds in higher dimensional hyperbolic spaces" (Seminario de Topologia UFF-PUc, Niterói, RJ, BR)

2009, May 11. "Le group d'isométries de l'Outre Espace d'un groupe libre." (Séminaire d'Algèbre, Dynamique et Topologie — Univ. Marseille, Fr.)

2009, March 13. "Asymptotic cones for CAT(0)-spaces. Flats and geometric rank." (University of Southampton, UK)

2008, June 7. "Asymptotic cones of metric spaces and related topics" (talk at the conference "Ultramath 2008, Applications of Ultrafilters and Ultraproducts in Mathematics"; Pisa, It)

2008, May 7. "Azioni di gruppi su oggetti iperbolici" (Univ. di Bologna, It)

2008, April 11. "Proprietées métriques de l'Outre-espace" (Seminaire Darboux, Montpellier, Fr)

2008, February 26. "Rigidité des noeuds de deux ponts dans $SO(4,1)$" (Laboratoire Emile Picard, Université Paul Sabatier, Toulouse, FR)

2008, February 19. "Rigidità di complementari di nodi a due ponti in $\mathbb{H}^4$" (Univ. of Pisa)

2008, January 28. "Asymptotic cones of non-positively curved manifolds: From ultra-flats to flats" (UFF, Niterói, BR)

2008, January 18. "Metric properties of Outer Space" (UFF, Niterói, BR)

2008, January 15. "Representations of fundamental groups of hyperbolic manifolds" (IMPA, Rio de Janeiro, BR)

2007, October 24. "the Weil-Petersson metric on Outer Space" (C.R.M. Barcelona)

2007, March 26. "A metric on Outer space." (C.R.M. Barcelona)

2007, March 12. "From ultralfats to flats, a characterisation of symmetric spaces via their asymptotic cones." Invited talk at the workshop "Représentations de groupes de surfaces et géométrie en dimension 3" (Toulouse, Fr.)

2007, February 13. "A distance on Outer space." Invited talk at the conference *Outerspace and Teichmüller space* (Luminy, Marseille, Fr.)

2006, November 1. "Length of automorphisms of free groups." Department of Mathematics University of Utah (Salt LAke City, UT, USA)

2006, October 27. "Generic stretching factor of automorphisms of free groups." Department of Mathematics, The University of Texas at Austin (Austin, TX, USA)

2006, October 11. "Geodesic currents on free groups" Department of Mathematics, The Ohio State University (Columbus, OH, USA)

2006, June 9. "Compacité des automorphismes de longueur borneé" (Talk at the *Atelier: Automorphismes et Substitutions*, Marseille, FR)

2006, May 22. "Length compactness for automorphisms of free groups" (Talk at the conference *Knots, Groups and 3-manifolds in Marseille*, Marseille, FR)

2006, April 27. "Courants géodśiques sur groupes libres" Institut Fourier, Université de Grenoble (FR)

2005, May 3. "Existence and uniqueness of measurable Cannon-Thurston maps" Lab. Emile Picard, Unicersité Paul Sabatier (Toulouse, FR)

2005, April 15. Talk at the Seminar of Geometry of the Dept. of Math. of the Univ. de Barcelona (UB Barcelona, SP).

2005, March 19. "Volume of representations and rigidity" (Talk at the *Conference on bounded cohomology, harmonic maps and Higgs bundles*, Strabourg, FR and Basel, CH)

2004, September 30. "Rigidità di rappresentazioni Fuchsiane" (Talk at the conference *Progressi Recenti in Geometria Reale e Complessa*, Levico Terme, IT)

2004, May 4. "Discrete groups, harmonic measures and equivariant maps II" Dept. of Math. Univ. of Pisa (IT)

2004, April 28. "Discrete groups, harmonic measures and equivariant maps I" Dept. of Math. Univ. of Pisa (IT)

2004, March, 19. "Medidas equivariantes para representaciones de grupos fundamentales de 3-variedades" UAB, Barcelona (SP)

2004, January, 29. "Constructing natural maps for representations" Dept. of Math. UQAM Montreal (Quebec)

2003, November, 4 "Volume of representations and rigidity." Dept of Math. of Univ. of Pisa (IT)

2003, October, 28. "Volume of representations of fundamental groups of cusped 3-manifolds" Dept. of Math. of Univ. of Pisa (IT)

2003, June, 16. "Hyperbolic volume of representations of fundamen,tal groups of 3-manifolds" CRM, Barcelona (SP)

2003, January, 8. "Algebraic and Geometric solutions of compatibility and completeness equations" Dept. of Math. of Univ. of Pisa (IT)

Administration

Since 2013 Member of the PhD committee of the department of Mathematics of the Univ. of Bologna.

Other activities

- Referee for international journals.

- Reviewer for Mathematical Reviews.

Publications

All the publications are available in electronic format on the web-page
`http://www.dm.unibo.it/˜francavi`

1. Stefano Francaviglia and Alessio Savini. Volume rigidity at ideal points of the character variety of hyperbolic 3-manifolds. Preprint arXiv:1706.07347.

2. Stefano Francaviglia and Armando Martino. On the connectivity of level sets of automorphisms of free groups, with applications to decision problems. Preprint arXiv:1703.09945.

3. Gabriel Calsamiglia, Bertrand Deroin, Stefano Francaviglia A transfer principle: from periods to isoperiodic foliations. Preprint arXiv:1511.07635.

4. Stefano Francaviglia and Armando Martino. Stretching factors, metrics and train tracks for free products. *Illinois Journal of Mathematics* 59(4) 2015, 859-899.

5. Gabriel Calsamiglia, Bertrand Deroin, Stefano Francaviglia. Branched projective structures with Fuchsian holonomy. *Geometry and Topology* 18(1) 2014, 379-446.

6. Gabriel Calsamiglia, Bertrand Deroin, Stefano Francaviglia. The oriented graph of multi-graftings in the Fuchsian case. *Publicacions Matemàtiques* 58(1) 2014, 31-46.

7. Mathieu Carette, Stefano Francaviglia, Ilya Kapovich, and Armando Martino. Corridendum to: Spectral rigidity of automorphic orbits in free groups. *Alebraic and Geometric Topology* 14(5) 2014, 3081-3088.

8. Stefano Francaviglia, Roberto Frigerio, and Bruno Martelli. Stable complexity and simplicial volume of manifolds. *J. of Topology* 5(4) 2012, 977-1010.

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