CURRICULUM VITAE: Andrés Ignacio Navas Flores

**Updated: January 2021**

**PERSONAL DATA**

* Birth: January 9th, 1976, Santiago de Chile (citizenship: Chilean).
* Email: [andres.navas@usach.cl](mailto:andres.navas@usach.cl)
* <http://mat.usach.cl/index.php/2012-12-19-12-50-19/academicos/75-andres-navas-flores>

**CURRENT POSITION**

- From January 2007: Professor, Departamento de Matemática y Ciencia de la Computación, Univ. de Santiago de Chile (2007-2014: associate professor; full professor from January 2015).

- October 2018 - February 2020: Professor at Universidad Nac. Autónoma de México, Cuernavaca.

**PREVIOUS EXPERIENCE**

**-** From March 2004 to December 2006: Assistant Professor at Universidad de Chile, Fac. de Ciencias.

- From 2007 to 2012: Adjoint Professor: Univ. de Chile (Facultad de Ciencias and Facultad de Ingeniería).

**EDUCATION**

* **Post-doctoral position at Inst. Hautes Études Scient. (IHES), France, October 2004 – September 2005.**
* Ph.D. in Mathematics, École Normale Supérieure de Lyon, France, December 2003.
* DEA in Pure Mathematics, Université Paris Sud (Orsay), France, November 2000.
* Master degree, Instituto Nacional de Matemática Pura e Aplicada IMPA, Brazil, August 1999.
* Bachelor degree, Universidad de Santiago de Chile, September 1999.

**HONORS and AWARDS**

* **Participation in Math Olympiads: Cono Sur / South America (1991; gold medal), Iberoamerican (1993 and 1994; gold medals).**
* **1999: Jorge Billeke award for undergraduate studies.**
* **2008: Prize to the best young researcher of the Faculty of Science, USACH.**
* **2009: USACH Prize to distinguished former students.**
* 2013: Prize of the Mathematical Council of the Americas (MCA) for outstanding research.
* 2013: Orden al Mérito Científico, USACH.
* 2016: Prize of the Unión Mat. de América Latina y El Caribe (UMALCA) for outstanding research.
* 2018: Invited speaker at the International Congress of Mathematicians (Rio de Janeiro).
* 2020: Premio a la Excelencia en Vinculación con el Medio, USACH.

**FELOWSHIPS and GRANTS**

* **1993: “Beca excelencia académica”, undergraduate scholarship, Facultad de Agronomía y Ciencias Forestales, Univ. de Chile.**
* **2000-2003: CROUS (France) and MIDEPLAN (Chile) fellowships for PhD studies.**
* **2004: William Hodge fellowship for a one-year position at IHES, British Council of Engineering.**
* **2005: DRI (internal) Project at University of Chile.**
* **2005-2006: Fundación Andes (individual grant for young scientists).**
* **2006: Fondecyt No. 1060829 (Main Researcher) and International Collaboration No. 7060237.**
* **2007-2009: Anillo Project “Low Dimensional Dynamics” (Main Researcher), CONICYT.**
* **2009-2011 MathAmsud Project DYSET (Main Researcher and Director of the Chilean team).**
* 2010-2011 Fondecyt No. 1100536 (Main Researcher).
* 2012-2015 Fondecyt No. 1120131 (Main Researcher).
* 2012-1015 Anillo 1103 “Center of Dynamical Systems and Related Fields” (Director), CONICYT.
* 2014: temporary CNRS position (January to March), invited by Anna Erschler to Univ. Orsay / IHP.
* 2015: International Network “Dynamical systems with mild hyperbolic behavior” (Director).
* 2015-2018: Anillo 1415 “Geometry at the Frontier” (Associated Researcher), CONICYT.
* 2016-2019: Fondecyt No. 1160541 (Main Researcher).
* 2017-2018: MathAmsud Project “Geometry, dynamics, and Anosov representations” (Main Researcher and Director of the Chilean team).
* 2018: VIME fund (USACH) for the “Chilean Mathematical Festival”.
* 2020: Explora project (dissemination) for the Chilean Math. Festival (Director).
* 2020-2021: Fondecyt No. 1200114 (Main Researcher).
* 2020-2022: ANR GROMEO (Foreign Associated Researcher).
* 2022-2023. Fondecyt No. 1220032 (Main Researcher).

**ADMINISTRATION (beyond universities)**

* **President (2015-2018) and Secretary (2007-2009) of the Chilean Mathematical Society (SOMACHI).**
* **Member of the Scientific Committee for the Chilean Math. Olympiads (2006-2010).**
* **Responsible of the Dynamical Systems Seminar of Santiago (2006).**
* **Member of the ”Grupo de Estudio FONDECYT Matemáticas, CONICYT'' (2009-2011 and 2016-2017).**
* **Treasurer of the “Chilean Scientific Council” (2018).**
* **Columnist of the electronic newspaper *El Mostrador* (**<http://www.elmostrador.cl/autor/anavas/>**).**
* **Member of the Editorial Committee of *Algebraic and Geometric Topology.***
* **Member of the Editorial Committee of *SciComm Report.***
* **Member of the Committee of Human Rights of the American Mathematical Society (2017-2019).**
* **Referee for journals (among others): Alg. and Geom. Topology; Ann. Inst. Fourier; Ann. of Math.; Bull. Brazilian Math. Soc.; Bull. London Math. Society; Comm. Math. Helvetici; Comptes Rendus de l'Acad. des Sciences; Compositio Math.; Discrete and Continuous Dyn. Systems; Duke Math. Journal; L’Enseign. Math.; Erg. Theory and Dyn. Systems; Geom. and Funct. Analysis; Geom. Dedicata; Geometry and Topology; Groups, Geometry, and Dynamics; Invent. Math.; Israel J. of Math.; J. Amer. Math. Soc.; J. European Math. Soc.; J. Combinatorial Th.; J. Group theory; J. Modern Dynamics; IMRN; Math. Annalen; Math. and Comp. Modeling; Math. Research Letters; Moscow Math. Journal; Nagoya Math. Journal; Nonlinearity; Publ. Math. de l’IHES; Proc. AMS; Proc. Cambridge Phil. Soc.; Topology and its Applications.**
* **Referee of research projects DICYT (Chile), CONICYT (Chile), ANI (Uruguay), MINCYT (Argentina), AMS and NSF (USA), GIF (Germany-Israel), Killam Program (Canada).**
* **Member of the MCA Prize Committee for the MCA 2017 (Montréal).**
* **Member of the IMU Committee for the 2018 Leelavati Prize (ICM Rio de Janeiro).**
* **Member of the Permanent Committee of the *Festival de Matemáticas de Chile.***
* **President of the Scientific Committee of UMALCA and President of the Scientific Committee of the UMALCA Congress 2020 (Montevideo).**
* **Member of the Executive Committee of the Mathematical Council of the Americas (2020-2023).**

**LANGUAGES SPOKEN**

**Spanish (native language); French, English, Portuguese (fluent oral and written); Italian, Russian (basic).**

**RESEARCH LINES**

**Dynamical systems, group theory, geometry.**

**SCIENTIFIC PUBLICATIONS**

**Research books:**

1.- *Groups of circle diffeomorphisms* (2011). Chicago Lectures in Mathematics, University of Chicago Press (translated version of “Grupos de difeomorfismos del círculo”, published in Ensaios Matemáticos, Braz. Math. Soc, 2007, formerly published in Monografías del IMCA, Perú).

2.*- Groups, Orders, and Dynamics* (joint with B. Deroin and C. Rivas).American Math. Society (in process).

3.- *Magic Squares: a guided tour through their symmetries.* In progress.

**Publications and submissions to research journals:**

**1.- On the arc connectedness of Zd actions by diffeomorphisms on 1-manifolds (joint with H. Eynard-Bontemps). Submitted.**

**2.- On the dynamics of the unreported cases during the COVID-19 pandemics: the Chilean case (joint with G. Vergara). Submitted.**

**3.- On the automorphisms of Higman-Thompson groups Vn (joint with C. Bleak, P. Cameron, Y. Maissel and F. Olukoya). Submitted*.***

**4.- Three remarks**on**cocycles of Banach space isometries over a minimal dynamics (joint with G. Castro). Submitted*.***

**5.- On conjugates and the asymptotic distortion of 1-dimensional C1+bv diffeomorphisms. IMRN (to appear).**

**6.- On the projective derivative cocycle for circle diffeomorphisms (joint with M. Ponce). Math. Research Letters (to appear).**

**7.- Mather invariant, conjugates, and asymptotic distortion for diffeomorphisms of the interval (joint with H. Eynard-Bontemps). J*. Functional Analysis* (2021).**

**8.- (Un)distorted diffeomorphisms in different regularities. *Israel J. Math* (2021).**

**9.- Uniformly perfect, finitely generated simple left orderable groups (joint with J. Hyde, Y. Lodha and C. Rivas). *Erg. Theory and Dyn. Systems* (2021).**

10.- Pythagoras’ theorem via equilateral triangles. *Math. Magazine* (2020).

**11.- Groups with infinitely many ends acting analytically on the circle (joint with S. Álvarez, D. Filimonov, V. Kleptsyn, D. Malicet, C. Meniño and M. Triestino). *J. of Topology* (2019).**

**12.- Group acting on 1-manifolds: a list of very concrete open questions. *Proceedings of the ICM, Rio de Janeiro* (2018).**

**13.- Wandering domains for diffeomorphisms of the k-torus: a remark on a theorem of Norton and Sullivan.** Ann. Fenn. Acad. Math**. (2018).**

**14.- On the ergodic theory of free-group actions by real-analytic circle diffeomorphisms (joint with B. Deroin and V. Kleptsyn). *Inventiones Math*. (2018).**

**15.- Non-rectifiable Delone sets in SOL and other solvable groups (joint with T. Dymarz). *Indiana M. J.* (2018).**

**16.- On the sharp regularity for arbitrary actions of nilpotent groups on the interval: the case of N4 (joint with E. Jorquera and C. Rivas). *Erg. Theory and Dyn. Systems* (2018).**

17.- **Rigidity for C1 actions on the interval arising from hyperbolicity I: solvable groups (joint with C. Bonatti, I. Monteverde and C. Rivas). *Math Z* (2017).**

**18.- A paradigm for codimension one foliations (joint with B. Deroin, D. Filimonov and V. Kleptsyn).**Advances Studies in Pure Math.**(2017).**

19.- Open problems and conjectures related to the Theory of Mathematical Quasicrystals (survey by F. Adiceam; with the collaboration of D. Damanik, F. Gähler, U. Grimm, A. Haynes, A. Julien, A. Navas, L. Sadun, and B. Weiss). *Arnold Math. Journal* (2016).

**20.- Une remarque à propos de l’équivalence bilipschitzienne entre des ensembles de Delone. (A remark concerning bi-Lipschitz equivalence of Delone sets). *CRAS* (2016).**

**21.- Some examples of non-rectifiable, repetitive Delone sets (joint with M. I. Cortez).**Geom. and Top. **(2016).**

22.- A geometric path from zero Lyapunov exponents to rotation cocycles (joint with J. Bochi*). Erg. Theory and Dyn. Systems* (2015).

23.- Groups, orders and laws. *Groups, Geom., and Dyn.* (2014).

24.- Almost reduction and perturbation of matrix cocycles (joint with J. Bochi). *Ann. I. H. Poincaré* (2014).

25.- Sharp regularity of certain nilpotent group actions onthe interval (joint with G. Castro and E. Jorquera). *Math. Annalen* (2014).

26.- Sur les rapprochements par conjugaison en dimension 1 et classe C1. *Compositio Math*. (2014).

27.- On bounded cocycles of isometries over a minimal dynamics(joint with D. Coronel and M. Ponce). *Journal of Modern Dynamics* (2013).

28.- Symmetric random walks on Homeo+(R) (joint with B. Deroin, V. Kleptsyn and K. Parwani). *Annals of Probability* (2013).

29.- On centralizers of interval diffeomorphisms in critical (intermediate) regularity. Journal d'Analyse Mathématique(2013).

30.- On the invariant distributions of C2 circle diffeomorphisms with irrational rotation number (joint with M. Triestino). *Math Z.* (2013).

31.- A Livsic type theorem for germs of analytic diffeomorphisms (joint with M. Ponce). *Nonlinearity* (2013).

32.- An L1-ergodic theorem with values in a nonpositively curved space via a canonical barycenter map. *Erg. Theory and Dyn. Systems* (2013).

33.- An example concerning the Theory of Levels for codimension-1 foliations. *Proc. of the first French-Uruguayan joint mathematical meeting* (2012).

34.- On the dynamics of non-reducible cylindrical vortices(joint with D. Coronel and M. Ponce). *Journal of the London Math. Soc*. (2012).

35.- Nielsen-Thurston orderings and the space of braid orderings (joint with B. Wiest*). Bull. London Math. Society* (2011).

36.- A remarkable family of left-orderable groups: central extensions of Hecke groups*. J. Algebra* (2011).

37.- On the dynamics of left orderable groups. *Ann. de l'Institut Fourier (Grenoble)* (2010).

38.- A finitely generated, locally indicable group with no faithful action by C1 diffeomorphisms of the interval. *Geom. and Top.* (2010).

39.- Describing all bi-orderings on Thompson's group F (joint with C. Rivas). *Groups, Geom., and Dyn.* (2010).

40.- A new characterization of Conrad's property for group orderings, with applications (joint with C. Rivas, with an Appendix by A. Clay). *Algebraic and Geometric Topology* (2009).

41.- On the question of ergodicity for minimal group actions on the circle (joint with B. Deroin and V. Kleptsyn). *Moscow Math. Journal* (2009).

42.- A Denjoy type theorem for commuting circle diffeomorphisms having different Hölder differentiability class (joint with V. Kleptsyn). *Moscow Math. Journal* (2008).

43.- A non hyperbolic Bowen-Mañé type phenomenon (joint with E. Muñoz, E. Pujals and C. Vásquez). *Discrete and Continuous Dyn. Systems* (2008).

44.- Growth of groups and diffeomorphisms of the interval. *GAFA* (2008).

45.- Sur la dynamique unidimensionelle en régularité intermédiaire (joint with B. Deroin and V. Kleptsyn). *Acta Mathematica* (2007).

**46.- On uniformly quasisymmetric groups of circle diffeomorphisms.**Ann. Fenn. Acad. Math.**(2006).**

**47.- Reduction of cocycles and groups of diffeomorphisms of the circle. *Bull. Belg. Math. Soc. S. Stevin* (2006).**

**48.- Quelques nouveaux phénomènes de rang 1 pour les groupes de difféomorphismes du cercle.**Comment. Math. Helvetici**(2005).**

**49.- Sur les groupes de difféomorphismes du cercle engendrés par des éléments proches des rotations.**L'Enseign. Math.**(2004).**

**50.- Quelques groupes moyennables de difféomorphismes de l'intervalle.** Bol. Soc Mat. Mexicana**(2004).**

**51.- Groupes résolubles de difféomorphismes de l'intervalle, du cercle et de la droite.**Bull. Braz. Math. Soc.**(2004).**

**52.- On Schrödinger-Boussinesq equations (junto a F. Linares).**Adv. Diff. Equations**(2004).**

**53.- Actions de groupes de Kazhdan sur le cercle.**Ann. Scient. École Normale Sup.**(2002).**

**54.- Groupes de Neretin et propriété (T) de Kazhdan.**CRAS**(2002).**

**55.- C0 continuity of the Fröbenius-Perron semigroup (joint with S. Plaza).**Int. J. Math. & Math. Sciences**(2002).**

**56.- On the volumetric entropy in the noncompact case.**Proyecciones**(2002).**

**57.- Operador de Perron-Fröbenius y medidas invariantes para aplicaciones del intervalo (joint with G. Iommi and S. Plaza).**Monografías del IMCA**(1999).**

**DISSEMINATION OF MATHEMATICS**

**Books:**

**1.-** *Un viaje a las ideas. 33 historias matemáticas asombrosas.* Editorial Planeta.

2.- *Lecciones de matemáticas para el recreo.* Editorial Planeta.

3.- Pi: una historia infinita. Editorial Planeta (in progress).

4.- *Nuevas lecciones de matemáticas para el recreo*. Editorial USACH (in progress).

5.- *Magic squares: a guided tour throughout their symmetries* (in progress).

**Websites:**

**1.-** [Facebook channel](https://www.facebook.com/unviajealasideas/) **“Un Viaje a las Ideas”.**

**2.-** [Youtube channel](https://www.youtube.com/channel/UC4dX-e0YeCCsGGBgxtwgxIw?view_as=subscriber)**.**

**3.- ”Images des Mathématiques'' (**<http://images.math.cnrs.fr>**): responsible for the French-Spanish translation, editor of the section “Ressources Pédagogiques” and responsible of the Spanish** [Facebook channel](https://www.facebook.com/Paisajes-Matem%C3%A1ticos-2124779251131619/) **“Paisajes Matemáticos”.**

**Publications (articles not included in books):**

**1.- La ciencia como actividad social. Diario** *El Mercurio.*

2.- Medalla Fields para matemático Artur Avila. *Diario electrónico El Mostrador.*

**3.- Un partido que no podemos perder (si lo jugamos con la buena pelota). *Chile científico.***

**4.- Por qué Notre Dame, la catedral áurea, es tan apreciada por muchos matemáticos. *El Mostrador.***

**5.- La Unidad de Todas las Cosas: la novela matemática de este verano. *El Mostrador.***

**6.- Matemáticas y coronavirus: el momento de actuar con fuerza es ahora. *El Mostrador.***

**7.- El día en que Bernoulli y d’Alembert se pelearon por el modelo matemático de una pandemia. *El Mostrador.***

**8.- El día en que profesores del extranjero vinieron a enseñar a Chile. *El Mostrador.***

**9.- Dooble: el juego de salón que esconde un tesoro matemático (joint with N. Geyssel and M. Moreno). EtilMercurio.**

**10.- Cubriendo el plano con polígonos. *Universo.math*, México.**

11.- **Una fórmula maravillosa (joint with J. Larenas).** *Revista del Profesor de Matemática****.***

12.- **Pequeña fórmula, dos grandes problemas.***Revista del Profesor de Matemática.*

13.- **Para ahorrarse unos cálculos.** *Revista del Profesor de Matemática.*

14.- **Sobre desigualdades e identidades algebraicas.** *Revista Joven Matemático.*

**15.- Algunas consideraciones geométricas sobre el diseño de la bandera de la Independencia de Chile.**Revista Bicentenario**(2015).**

**16.- The amazing story of a forgotten golden flag. Submitted.**

17.- Una curiosidad desconocida del número áureo. *Diario El País*, España.

18.- **Un cas d'inconscience (?). *Images des Mathématiques.***

19.- **Un voyage sympa : des problèmes de maths dans le métro. *Images des Mathématiques.***

**20.- Des carrés magiques en cadeaux. *Images des Mathématiques.***

**21.- Une erreur géométrique dans la Ligue des Champions. *Images des Mathématiques.***

**22.- Encore une prevue du théorème de Pythagore. *Images des Mathématiques.***

**23.- La quadrature du triangle. *Images des Mathématiques.***

**24.- Un drapeau en or perdu dans l’histoire. *Images des Mathématiques.***

**25.- Comment multiplier sans connaître les tables de multiplication (joint with J. Levrault). *Images des Mathématiques*.**

**26.- Comment multiplier en ne connaissant que la table de 2 (joint with J. Levrault). *Images des Mathématiques.***

**27.- Un petit théorème de distanciation physique. *Images des Mathématiques*.**

**28.- Un autre théorème de distanciation physique. *Images des Mathématiques.***

**29.*-* Le carré magique de Khajuraho est un hypercube. *Images des Mathématiques.***

**30.- Encore des maths dans un ballon de foot. *Images des Mathématiques.***

**31.- L’abeille et la chenille (joint with. X. Colipan and M. J. Moreno). *Images des Mathématiques.***

**MORE REFERENCES**

* **google scholar:** <https://scholar.google.cl/citations?user=b7fflboAAAAJ&hl=es>
* **mathscinet:** <https://mathscinet.ams.org/mathscinet/search/author.html?mrauthid=696638>

**TRAINING AND TUTORSHIP OF STUDENTS.**

* **Carlos Gómez, USACH (2006), undergraduate.**
* **Leslie Jiménez, U. de Chile (2006-2008), Master.**
* **Eduardo Jorquera, U. de Chile (2006-2009), PhD.**
* **Cristóbal Rivas, Univ. de Chile (2008-2010), PhD.**
* **Gonzalo Castro, USACH (2011-2013), PhD.**
* **Alejandro García, USACH (2018), Master.**
* **Rodolfo Viera, USACH (2016-2020), PhD.**
* **Leonardo Dinamarca, USACH, PhD thesis expected for 2022.**
* **Post-docs advised:** Álvaro Castañeda, Mickael Crampon, Mahdi Teymuri Garakani, Mathieu Calvez, Mahsa Allahbahkshi, Jonathan Conejeros.

**SOME VISITING POSITIONS** **(selected)**

**Univ. Neuchâtel (November 2003 and January 2004), University of Tokyo (December 2005), Inst. de Mat. Pura e Aplicada IMPA (January - February 2006), CALTECH (April 2006), Univ. of Lille (June 2007), UNAM México (September 2007 and 2018-2019), Univ. Paris XI (Orsay) (February 2010), Univ. of Cambridge (July 2010), Univ. Orléans (October 2010), Univ. Sao Paulo (January 2011), Teheran Inst. Math. (February 2012 and February 2017), Mittag-Leffler Inst. (March 2012), Indep. Univ. Moscow (September 2012), Univ. Bourgogne (January 2013), Institut H. Poincaré (temporal CNRS position; January-March 2014), PUC-Rio (January 2015).**

**PARTICIPATION (with talks) IN INTERNATIONAL CONGRESSES (selected since 2007)**

**- Int. Conference on Dynamics and Foliations, Independent Univ. of Moscow (January 2007).**

**- Rencontre de Systèmes Dynamiques, Univ. of Lille (July 2007).**

**- Encuentro anual SOMACHI (plenary talk ; November 2007).**

**- Colloque Diablerets “Dynamics of group actions”, Les Diablerets, Switzerland (March 2008).**

**- Minicourse (with É. Ghys) at Int. School and Conference on Dynam. Systems, ICTP Trieste (July 2008).**

**- Special session on “Orderings in logic and topology'', AMS Annual Meeting, Washington (January 2009).**

**- Rencontre ''Actions Isométriques'', Orléans, France (June 2009).**

**- Des groupes de tresses aux espaces de Teichmüller, Luminy, Marseille, France (July 2009).**

**- Minicourse at the “Latinoamerican Congress of Mathematicians'' (UMALCA), USACH (August 2009).**

**- Tresses in Pau, Univ. de Pau, France (September 2009).**

**- Minicourse at the “Annual meeting of the Uruguayan Math. Society'', Montevideo (December 2009).**

**- Bicentennial Workshop on Dnamical Systems, San Pedro de Atacama, Chile (July 2010).**

**- Rencontre ''Autour la propriété (T)'', Univ. d'Orléans (May 2010).**

**- Plenary talk for the first joint-meeting between the American and the Chilean Math. Soc. (December 2010).**

**- Minicourse for “Around property (T)'', Hebrew Univ. Jerusalem (January 2011).**

**- Conference “Trends in Dynamics'', Univ. of Northwestern (April 2011).**

**- Beyond Uniform Hyperbolicity, Luminy, Marseille, France, (June 2011).**

**- Conference “Groups in action at Harz'”, organized by the Univ. of Göettingen (July 2011).**

**- Conference “Ordered groups and topology'', Banff Int. Research Station (January 2012).**

**- Minicourse at the conference “Topology and Dynamics'', Teheran, Iran (February 2012).**

**- Special Semester “Geometric and analytic aspects of group theory'', Mittag Leffler Inst. (March 2012).**

- Int. Conference on Dynamical Systems. ICTP, Trieste, Italy (June 2012).

- Congreso UMALCA (sessions of Dynamical Systems and Group Theory), Córdoba, Argentina (August 2012).

- Special Semester on Dyn. Systems, Indep. Univ. Moscow (September 2012).

- Rigidity School, Univ. Tokyo (January 2013).

- European young researchers meeting in group theory, TECHNION, Israel (January 2013).

- Groups and Dynamics: honoring R. Grigorchuk’s anniversary, Les Diablerets, Switzerland (March 2013).

- Beyond Uniform Hiperbolicity, Bedlewo, Poland (June 2013).

- Anniv. Conf. of Dale Rolfsen “Low Dimensional Topology and orderable groups”, Marseille (July 2013).

**- Thermodynamical Formalism and Applications, PUC, Santiago (July 2013).**

**- Int. Conf. of Dynamics, UNAM, Cuernavaca (September 2013).**

**- Math. Congress of the Americas, Guanajuato, Mexico (September 2013).** **- Geometry and Foliations, Tokyo (September 2013).**

**- Workshop in Low-Dimensional Dynamics, IMPA (November 2013).**

**- Holomorphic and symbolic dynamics, Univ. Toulouse 1 (January 2014).**

**- Workshop on the extended family of R. Thompson's groups, Univ. St Andrews (April 2014).**

**- VII Encuentro Nacional de Álgebra, Córdoba, Argentina (July 2014).**

**- Orderable Groups, Cajón del Maipo, Chile (September 2014).**

**- Encuentro Anual SOMACHI, plenary talk (December 2014).**

**- School on orbit equivalence and related fields, Santiago (December 2014).**

**- Workshop on Symbolic Dynamics on Finitely Presented Groups, Santiago (December 2014).**

**- School on Information and Randomness, Puerto Varas, Chile (December 2014).**

**- Chile - New Zealand Workshop on Dynamical Systems, Valparaíso, Chile (January 2015).**

**- Geometric Group Theory on the Gulf conference (G^3), Texas (March 2015).**

**- Conference on Dynamical Systems at ICTP (July 2015).**

**- Nonpositive curvature and infinite dimension, Univ. Nancy (August 2015).**

**- Encuentro anual Unión Matemática Argentina (August 2015).**

**- Mathematical quasicrystals, Oberwolfach (September 2015).**

**- Geometric Topology Fair 2016, South Korea (July 2016).**

**- Congreso UMALCA, Barranquilla, Colombia (July 2016).**

**- Anniversary Conference Inst. Matemáticas de Cuernavaca, UNAM (January 2017).**

**- Groups of Dynamical Origin, UNAM (February 2017).**

**- Math. Congress of the Americas (special session of “Computation on groups”), Montréal (July 2017).**  
**- Operator Algebras, Fields Institute, Toronto (July 2017).**

**- XX Congreso de la Sociedad Boliviana de Matemáticas, La Paz, Bolivia (November 2017).**

**- Groups of Dynamical Origin 2, UNAM (January 2018).**

**- Workshop on groups, geometry, and dynamics, U. de la República, Montevideo (July 2018).**

**- ICM 2018, Section 9 Dynamical Systems and Ordinary Differential Equations, Rio de Janeiro (August 2018).**

- Workshop on dynamics honoring Patrice le Calvez birthday, Montevideo (December 2018).

- Workshop on group actions on 1-manifolds, Montevideo (March 2019).

- **Ordered groups and rigidity in dynamics and topology, Oaxaca (June 2019).**

**- MSRI summer school on Geometric Group, Oaxaca (July 2019).**

**- Mexican Math. Soc. annual meeting, session on dissemination of mathematics, Monterrey (September 2019).**

**- Iberoamerican Congress of Geometry, Morelia (June 2020).**

**- New trends in ergodic theory, PUC Chile (July 2020).**  
- Rigidity and regularity of diffeomorphism groups, KIAS Korea (July 2020).

- Virtual thematic workshop in Math. Sciences “Dynamical Systems”, TWAS (September 2020).

- C. Bonatti’s borthday conference, CIRM (June 2021).

- Escuela EMALCA, México (December 2021).

- School on group theory, random walks and analysis. U. Texas (March 2022)

- Pacific RIM Mathematical Association Congress 2022, PIMS (Vancouver, plenary talk)

**ORAL PRESENTATIONS AT INTERNATIONAL SEMINARS (selected since 2007)**

**ENS Lyon (2010, 2013, 2021), Hebrew Univ. Jerusalem (2009), UNAM México (2007, 2018, 2019, 2020), Univ. of Bourgogne, Dijon (2011, 2013), Univ. British Columbia (2008), Univ. de Caen (2008), Univ. of Chicago (2009, 2011), Univ. of Geneva (2011), Univ. of Illinois at Chicago (2009, 2011), Univ. of Linköping (2012), Univ. of Northwestern (2011), Univ. d'Orsay Paris XI (2008, 2009, 2010, 2013), Univ. Paris VII (2010, 2014), Univ. Paris XIII (2007), Univ. de Rennes (2008), Univ. Orléans (2010), Univ. of Sao Paulo (2011), Univ. of Texas at College Station (2011), Indep. Univ.Moscow (2012), Univ. de Strassbourg (2014), Collège de France (2014), Univ. de Neuchâtel (2014), St Andrews University (2016), U. de la República (2018), Univ. de Buenos Aires (2018), UT Austin (2020), KIAS (2020), Stony-Brook (2021).**

**SCIENTIFIC AND ORGANIZING COMMITTEE (selected since 2007).**

**- “VI International School on Dynamical Systems'': USACH (July 2007).**

**- “LVI Colloquium of Dynamical Systems'': USACH (July 2007).**

**- “Probabilistic and dynamical aspects of semi-group actions'': USACH (January 2008).**

**- “Dynamics in Dimension Two'': Pucón, Chile (April 2009).**

**-“Bicentennial Workshop on Dynamical Systems'': San Pedro de Atacama, Chile (June 2010).**

**- “LVII Colloquium of Dynamical Systems'': celebrating V. Guíñez’ anniversary: Valparaíso (November 2010).**

**- “Groups and Dynamics'': U. de Chile (December 2010).**

**- Special session “Group actions'', first AMS-Somachi joint meeting: Pucón (December 2010).**

**- Special session “Foliations and dynamics'', first AMS-Somachi joint meeting: Pucón (December 2010).**

**- “LIX Colloquium of Dynamical Systems'', remembering the work of S. Plaza: USACH (November 2011).**

**- “LX Colloquium of Dyn. Systems'', celebrating R. Bamón’s anniversary: Pucón (November 2011).**

**- “AGRA: Aritmética, grupos y análisis”: USACH (April 2012).**

**- “Encuentro anual SOMACHI”: Olmué (November 2012).**

**- “Dynamics of Isometric Cocycles”: Cajón del Maipo, Chile (May 2013).**

**- “Int. School on Dynamical Systems”: San Pedro de Atacama, Chile (July 2013).**

**- Special session “Dyn. Systems and Erg. Theory”, MCA Congress: Guanajuato (September 2013).**

**- “Encuentro annual SOMACHI”: Olmué (November 2013).**

**- “Orderable Groups”: Cajón del Maipo, Chile (September 2014).**

**- “Encuentro anual SOMACHI”: Quinamávida (December 2014).**

**- “Geometries in Action”, celebrating the anniversary of É. Ghys: Lyon (July 2015).**

**- XVIII International Congress of Mathematical Physics: Santiago (July 2015).**

**- “Beyond Uniform Hyperbolicty”: Olmué, Chile (September 2015).**

- “Encuentro anual SOMACHI”: Pucón (November 2015).

- “Segundo Campamento de Matemáticas”: Santiago (March 2016).

- “Workshop for young researchers: group acting on manifolds”: Teresópolis, Brasil (June 2016).

**- “Latinoamerican Congress of Algebra”: Buenos Aires (July 2016).**

**- “Congreso Matemática Capricornio COMCA”: Univ. Antofagasta (July 2016)**.

**- Primer encuentro conjunto SOMACHI-UMA “SUMA 2016”: Valparaíso (December 2016).**

**- Festival de Matemáticas de Valparaíso (17th December 2016).**

**- Coloquio LXII de Sistemas Dinámicos: el legado de Jorge Billeke (June 2017)**

**- Festival de Matemática de Vicuña (7th July 2017)**

**- Math. Congress of the Americas, Special session on Operator Groups: Montréal (July 2017).**

**- “School on Dyn. Systems, Séminaire des Math. Supérieures”: Montréal (July 2017)**.

- Special Session “Dynamical Systems” at the third PRIMA Conference: Oaxaca (August 2017).

- Festival de Matemática de San Antonio, Chile (8th September 2017).

- Conference on Dy. Systems celebrating the 60th anniversary of Rafael Labarca: Santiago (September 2017).

**- A Matemática está em tudo: Festival de Matemática de Maceió, Brasil (October 2017).**

**- Encuentro Anual SOMACHI (November 2017).**

**- Festival de Matemática de Talca (4th November 2017).**

**- Festival de Matemática de Valdivia (28th April 2018).**

**- Festival de Matemática de Chiloé (5th October 2018).**

**- Encuentro Anual SOMACHI (December 2018).**

**- Groups of Dynamical Origin, UNAM (January 2019).**

**- Groups of Dynamical Origin, UNAM Cuernavaca (January 2020).**

**- Primer Festivirtual de Matemáticas (August 2020).**

- X young Geometric Group Theory, Newcastle, (April 2021).

- Groups, Geometry, and Dynamics Conference, Dehli, India (July 2021).

**- UMALCA, Congress Uruguay; president of the Scientific Committee (September 2021).**

**- Big mapping class groups and diffeomorphisms groups, CIRM, France (October 2022).**

**- GAGTA (Vienna 2023).**

**SOME PRESENTATIONS AT CULTURAL EVENTS AND PLACES (SELECTED)**

**- Museo Histórico Nacional, Santiago (May 2015).**

**- Campamento CAMAT, Santiago (April 2016).**

**- Campamento MateA for girls, Santiago (January 2017).**

**- Festival Cambalache, Santiago (January 2018 and January 2019).**

**- Festival Puerto de Ideas, Antofagasta (April 2018).**

- Feria Internacional del Libro, Guadalajara (November 2018).

- Festival Matemático, Palacio de Chapultepec, Ciudad de México (April 2019).

- Café Científico, Casa de la Cultura UNAM de Morelia (January 2020).

- Museo UNAM HOY (exposition “Matemáticas Visibles”), Ciudad de México (February 2020).

- Permanent commentator at the Radio USACH program All You Need is LAB (2020-2021).

- Festival Nacional da Matemática, Rio de Janeiro (September 2022).