

# MATILDE N. LALÍN

## PERSONAL INFORMATION

Citizenship	Argentina and Canada	Address	Département de mathématiques et de statistique Université de Montréal
Born	Buenos Aires, Argentina		CP 6128, succ. Centre-ville
Email	mlalin@dms.umontreal.ca		Montréal, QC H3C 3J7, Canada
Homepage	<a href="http://www.dms.umontreal.ca/~mlalin">http://www.dms.umontreal.ca/~mlalin</a>	Office	Pavillon André-Aisenstadt 5145
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## EDUCATION

2001-2005 Ph.D., Department of Mathematics, University of Texas at Austin  
(Advisor: F. Rodríguez-Villegas)

Fall 2001 Visiting Graduate Student, Department of Mathematics, Harvard University

2000-2001 Graduate Student, Department of Mathematics, Princeton University

1996-1999 Licenciada en Ciencias Matemáticas, Universidad de Buenos Aires, Argentina

## POSITIONS

Since June 2012 Associate Professor, Département de mathématiques et de statistique,  
Université de Montréal, Montréal, Canada

2010-2012 Assistant Professor (tenure-track), Département de mathématiques et de statistique,  
Université de Montréal, Montréal, Canada

2007-2010 Assistant Professor (tenure-track), Department of Mathematical and Statistical Sciences,  
University of Alberta, Edmonton, Canada

May-July 2007 Guest, Max-Planck-Institut für Mathematik, Bonn, Germany

2006-2007 Postdoctoral Fellow, Pacific Institute for the Mathematical Sciences  
and University of British Columbia, Vancouver, Canada

July-August 2006 Guest, Max-Planck-Institut für Mathematik, Bonn, Germany

May-July 2006 Visitor, Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France

April-May 2006 Member, Mathematical Sciences Research Institute, Berkeley, USA

2005-2006 Member, Institute for Advanced Study, Princeton, USA

## FELLOWSHIPS AND SIMILAR POSITIONS

2006-2007 Postdoctoral Fellowship, Pacific Institute for the Mathematical Sciences

2005 Liftoff Fellowship, Clay Mathematics Institute (postponed until 2006)

Spring 2004 Graduate Research Assistantship, Department of Mathematics, University of Texas at Austin

2001-2003, Fall 2004 Harrington Fellowship, University of Texas at Austin

2000-2001 Graduate Fellowship, Department of Mathematics, Princeton University

1998-1999 Fondo para el Mejoramiento de la Calidad Educativa (FOMECA), Argentina

Summer 1997 Instituto de Matemática Pura e Aplicada (IMPA), Rio de Janeiro, Brazil

## OTHER HONORS

2004-05 Frank Gerth III Dissertation Award, Department of Mathematics, University of Texas at Austin

Nominee for the 2005-06 Outstanding Dissertation Award, Graduate School, University of Texas at Austin

## RESEARCH FUNDING

- Discovery Grant, Natural Sciences and Engineering Research Council of Canada (NSERC)

- (CAD\$ 23,000 per year), 2013-2021 (extended due to appointment to the Mathematics and Statistics Evaluation Group)
- (CAD\$ 18,000 per year), 2008-2013
- Projet de recherche en équipe (PI: A. Granville, co-PIs: C. David and M. Lalín), Fonds de recherche du Québec – Nature et technologies (FRQNT) (CAD\$ 40,000 per year), 2012-2015
- Établissement de nouveaux chercheurs, Fonds de recherche du Québec – Nature et technologies (FRQNT) (CAD\$ 20,000 per year), 2011-2013
- Start-up grants
  - Faculté des arts et des sciences, Université de Montréal (CAD\$ 10,000 total), 2010-2013
  - Faculty of Sciences, University of Alberta (CAD\$ 50,000 total), 2007-2010
- Conference grants
  - Number Theory Foundation (US\$ 5,000), joint with C. David and M. Manes. For the BIRS Workshop “Women in Numbers 2”, Banff, Alberta, Canada, November 2011
  - Microsoft Research (US\$ 10,000), joint with C. David and M. Manes. For the BIRS Workshop “Women in Numbers 2”, Banff, Alberta, Canada, November 2011
  - Within a Collaborative Research Group in Number Theory from PIMS, (CAD\$ 15,000) joint with C. David and M. Manes. For the BIRS Workshop “Women in Numbers 2”, Banff, Alberta, Canada, November 2011
  - PIMS (CAD\$ 11,500), joint with J. D. Lewis and X. Chen. For “Regulators and Heights in Algebraic Geometry”, University of Alberta, April 2008
- Travel grants
  - SQuaREs (PI: C. David, co-PIs: A. Bucur, B. Feigon, M. Lalín), American Institute of Mathematics, 2012-2017

## RESPONSIBILITIES FOR STUDENTS AND PDF’S

- Ph.D. Students
  - Frank Ramamonjisoa (NSERC Graduate Scholarship), Université de Montréal, May 2017 - present.
  - Gang Wu, Université de Montréal, September 2016 - present.
- Master’s Students
  - Subham Roy, Université de Montréal, September 2017 - present
  - Antoine Giard (NSERC Graduate Scholarship), Université de Montréal, May 2017 - present
  - Gabriel Beauchamp Houde, Université de Montréal, May 2014 - August 2016. Thesis title: “Study of the number of irreducible polynomials over finite fields with certain constraints over the coefficients”
  - Nicolas Bouchard, Université de Montréal, June 2012 - October 2014. Thesis title: “Evaluation of the regulator over a modular curve and particular values”

- Olivier Larocque, Université de Montréal, September 2011 - September 2014. Thesis title: “Enumeration of monic irreducible polynomials over finite fields with different coefficient constraints”
- Jean-Sébastien Lechasseur (FRQNT Scholarship of 2nd cycle), Université de Montréal, May 2011 - September 2012. Thesis title: “Higher Mahler measure of certain rational functions”
- Zahraa Issa, Université de Montréal, September 2010 - August 2012. Thesis title: “A generalization of a theorem of Boyd and Lawton”
- Postdoctoral Fellows
  - Xianchang Meng (Co-supervised with C. David, D. Koukoulopoulos, and M. Radziwill), Université de Montréal, September 2017 - August 2018.
  - Sumit Giri (Co-supervised with C. David and D. Koukoulopoulos), Université de Montréal, October 2015 - August 2016.
  - Detchat Samart, Université de Montréal, January - June 2015.
  - Mathew Rogers, Université de Montréal, July 2011 - July 2013.
  - Ethan Smith (Co-supervised with C. David and A. Granville), Université de Montréal and Concordia University, June 2010 - July 2012.
  - Kaneenika Sinha (PIMS Postdoctoral Fellow), University of Alberta, July 2008 - June 2010.
- Undergraduate Summer Students
  - Tushant Mittal (Mitacs Globalink Undergraduate Research Internship), Université de Montréal, Summer 2017. Project title: “The Mahler measure of elliptic curves”
  - Yousef Mokrani, Université de Montréal, Summer 2017. Project title: “Adaptation of Monsky matrices to non- $\theta$ -congruent numbers with  $\theta = \frac{\pi}{3}$  and  $\theta = \frac{2\pi}{3}$ ” (honor thesis equivalent)
  - Alexis Leroux-Lapierre (NSERC Undergraduate Student Research Award), Université de Montréal, Summer 2017. Project title: “Notes on elliptic curves” (honor thesis equivalent)
  - Sivasankar Nair (Mitacs Globalink Undergraduate Research Internship), Université de Montréal, Summer 2016. Project title: “Elliptic curves and congruent numbers”
  - Frank Ramamonjisoa (NSERC Undergraduate Student Research Award), Université de Montréal, Summer 2016. Project title: “Applications of the arithmetic of elliptic curves”
  - Antoine Giard (ISM Undergraduate Research Supervised by Postdoctoral Fellows, Co-supervised with D. Samart), Université de Montréal, Summer 2015. Project title: “Generalized Mahler measure: bounds and other properties”
  - Alexis Langlois-Rémillard (NSERC Undergraduate Student Research Award), Université de Montréal, Summer 2015. Project title: “Higher Mahler measure: bounds and other properties”
  - Michael Laplante, Université de Montréal, Summer 2014. Project title: “The Riemann hypothesis over function fields”
  - Joëlle Matte (NSERC Undergraduate Student Research Award), Université de Montréal, Summer 2014. Project title: “The Riemann hypothesis over function fields”

- Vincent Girard (NSERC Undergraduate Student Research Award, Co-supervised with D. Koukoulopoulos), Université de Montréal, Summer 2013. Project title: “Elliptic curves and congruent numbers”
  - Miguel Caubet Fernández (NSERC Undergraduate Student Research Award), Université de Montréal, Summer 2012. Project title: “An introduction to binary quadratic forms”
  - Francis Rodrigue (ISM Undergraduate Research Supervised by Postdoctoral Fellows, Co-supervised with M. Rogers), Université de Montréal, Summer 2012. Project title: “An exploration of Bernoulli numbers and Bernoulli polynomials”
  - Jean-François Viens (Co-supervised with O. Cornea), Université de Montréal, Summer 2012. Project title: “Quadratic forms and Intersection form”
  - Nicolas Bouchard (ISM Undergraduate Research Supervised by Postdoctoral Fellows, Co-supervised with E. Smith), Université de Montréal, Summer 2011. Project title: “Congruent numbers and elliptic curves and functions” (honor thesis equivalent)
  - Nicolas Simard (NSERC Undergraduate Student Research Award), Université de Montréal, Summer 2011. Project title: “Complex multiplication” (honor thesis equivalent)
  - Andrew Cenkner (NSERC Undergraduate Student Research Award), University of Alberta, Summer 2008. Project title: “Distributions of Gaussian primes and primes in other Euclidean domains”
- Ph.D. Dissertation Committee
    - Marzieh Mehdizadeh, Université de Montréal, July 2017. Committee chair.
    - Oleksiy Klurman, Université de Montréal, July 2017. Committee member.
    - Jason Polak, McGill University, March 2016. External committee member.
    - Dimitri Dias, Université de Montréal, November 2015. Committee chair.
    - Yara Elias, McGill University, April 2015. External committee member.
    - Luca Candelori, McGill University, May 2014. External committee member.
    - Daniel Fiorilli, Université de Montréal, August 2011. Committee chair.
  - Ph.D. Candidacy Exam Committee
    - Crystel Bujold, Université de Montréal, November 2015. Committee chair.
    - Oleksiy Klurman, Université de Montréal, August 2015. Committee chair.
    - Jose Manuel Rodríguez Caballero, Université de Montréal, October 2013. Committee chair.
    - Marzieh Mehdizadeh, Université de Montréal, September 2013. Committee chair.
    - Dimitri Dias, Université de Montréal, May 2012. Committee chair.
    - Kevin Henriot, Université de Montréal, December 2011. Committee chair.
    - Jauffret Colin, Université de Montréal, August 2011. Committee member.
    - Andrey Novoseltsev, University of Alberta, March 2009. Committee member.
    - Serhan Tuncer, University of Alberta, September 2008. Committee member.
  - Master’s thesis Committee
    - Antoine Comeau-Lapointe, Université de Montréal, August 2016, Committee chair.

- Jose Manuel Rodríguez Caballero, Université de Montréal, May 2015, Committee chair.
- François Amalega Bitondo, Université de Montréal, September 2014, Committee chair.
- Crystel Bujold, Université de Montréal, January 2014. Committee chair.
- Antoine Poirier, Université de Montréal, February 2012. Committee chair.
- Marc-André Lacase, Université de Montréal, December 2011. Committee chair.
- Other Students
  - François Amalega Bitondo, PhD Student (general advisor) Université de Montréal, October 2014 - June 2016.
  - Jean-Sébastien Lechasseur, PhD Student (general advisor) Université de Montréal, September 2012 - October 2014.
  - Geneviève Perren, Visiting PhD Student (from University of Fribourg, Switzerland), University of Alberta, Summer 2008.
  - Shravya Yeragani, Undergraduate Student (general advisor), University of Alberta, April 2008 - February 2009.

## PUBLICATIONS

- *Joint with Vincent Girard and Sivasankar C. Nair*, Families of non- $\theta$ -congruent numbers with arbitrarily many prime factors. To appear in *Colloq. Math.*
- *Joint with Frank Ramamonjisoa*, The Mahler measure of a Weierstrass form. *Int. J. Number Theory* **13**, (2017), no. 8, 2195 – 2214.
- *Joint with Detchat Samart and Wadim Zudilin*, Further explorations of Boyd’s conjectures and a conductor 21 elliptic curve. *J. Lond. Math. Soc. (2)* **93** (2016), no. 2, 341 – 360.
- *Joint with Alina Bucur, Chantal David, and Brooke Feigon*, Statistics for ordinary Artin–Schreier covers and other  $p$ -rank strata. *Trans. Amer. Math. Soc.* **368** (2016), 2371 – 2413.
- *Joint with Alina Bucur, Chantal David, Brooke Feigon, Nathan Kaplan, Ekin Ozman, and Melanie Matchett Wood*, The distribution of  $\mathbb{F}_q$ -points on cyclic  $\ell$ -covers of genus  $g$ . *Int. Math. Res. Not. IMRN* 2016, no. 14, 4297 – 4340.
- A new method for obtaining polylogarithmic Mahler measure formulas. *Res. Number Theory* **2** (2016), Art. 17, 16 pp.
- *Joint with Olivier Larocque*, The number of irreducible polynomials with first two prescribed coefficients over a finite field. *Rocky Mountain J. Math.* **46** (2016), no. 5, 1587 – 1618.
- *Joint with Jean-Sébastien Lechasseur*, Higher Mahler measure of an  $n$ -variable family. *Acta Arith.* **174** (2016), no. 1, 1 – 30.
- Mahler measure and elliptic curve  $L$ -functions at  $s = 3$ . *J. Reine Angew. Math.* **709** (2015), 201 – 218.
- *Joint with Francis Rodrigue and Mathew Rogers*, Secant-Zeta Functions. *J. Math. Anal. Appl.* **409** (2014), no. 1, 197 – 204.

- Joint with Marie-José Bertin, Amy Feaver, Jenny Fuselier, and Michelle Manes, Mahler measure of some singular  $K3$ -surfaces. *Proceedings of WIN2—Women in Numbers 2 CRM Proceedings and Lecture Notes* 149 – 169, Contemp. Math., 606, Amer. Math. Soc., Providence, RI, 2013. (refereed)
- Joint with Marie-José Bertin, Mahler measure of multivariable polynomials. *Proceedings of WIN2—Women in Numbers 2 CRM Proceedings and Lecture Notes* 125 – 147, Contemp. Math., 606, Amer. Math. Soc., Providence, RI, 2013. (refereed)
- Equations for Mahler measure and isogenies. *Proceedings of the “Cuartas jornadas de teoría de números” J. Théor. Nombres Bordeaux* **25** (2013), no. 2, 387 – 399.
- Joint with Zahraa Issa, A generalization of a theorem of Boyd and Lawton. *Canad. Math. Bull.* **56** (2013), no. 4, 759 – 768.
- Joint with Chris J. Smyth, Unimodularity of zeros of self-inversive polynomials. *Acta Math. Hungar.* **138** (2013), no. 1–2, 85 – 101. Addendum, *Acta Math. Hungar.* **147** (2015), no. 1, 255 – 257.
- Joint with Mathew D. Rogers, Variations of the Ramanujan polynomials and remarks on  $\zeta(2j+1)/\pi^{2j+1}$ . *Funct. Approx. Comment. Math.* **48** (2013), part 1, 91 – 111.
- Joint with Alina Bucur, Chantal David, Brooke Feigon, and Kaneenika Sinha, Distribution of zeta zeroes of Artin–Schreier curves. *Math. Res. Lett.* **19** (2012), no. 6, 1329 – 1356.
- Joint with Kaneenika Sinha, Higher Mahler measure for cyclotomic polynomials and Lehmer’s question. *Ramanujan J.* **26** (2011), no. 2, 257 – 294.
- Joint with Alina Bucur, Chantal David, and Brooke Feigon, Biased statistics for traces of cyclic  $p$ -fold covers over finite fields. WIN—Women in Numbers, Fields Institute Communications, vol. 60, Amer. Math. Soc., Providence, RI, 2011, pp. 121 – 143. (refereed)
- Joint with Alina Bucur, Chantal David, and Brooke Feigon, Fluctuations in the number of points on smooth plane curves over finite fields. *J. Number Theory* **130** (2010), no. 11, 2528 – 2541.
- Joint with Alina Bucur, Chantal David, and Brooke Feigon, Statistics for traces of cyclic trigonal curves over finite fields. *Int. Math. Res. Not. IMRN* 2010, no. 5, 932 – 967.
- On a conjecture by Boyd. *Int. J. Number Theory* **6**, (2010), no. 3, 705 – 711.
- Joint with Oliver T. Dasbach, Mahler measure under variations of the base group. *Forum Math.* **21** (2009), no. 4, 621 – 637.
- Joint with N. Kurokawa and H. Ochiai, Higher Mahler measure and zeta functions. *Acta Arith.* **135** (2008), no. 3, 269 – 297.
- Joint with Oliver T. Dasbach, On the recurrence of coefficients in the Lück–Fuglede–Kadison determinant. *Proceedings of the “Segundas Jornadas de Teoría de Números.”* 119 – 134 Bib. Rev. Mat. Iberoam. *Rev. Mat. Iberoamericana*, Madrid, 2008. (refereed)
- Mahler measures and computations with regulators. *J. Number Theory* **128** (2008), no. 5, 1231 – 1271.

- *Joint with Mathew D. Rogers*, Functional equations for Mahler measures of genus-one curves. *Algebra Number Theory* **1** (2007), no. 1, 87 – 117.
- An algebraic integration for Mahler measure. *Duke Math. J.* **138** (2007), no. 3, 391 – 422.
- *Joint with Carlos A. D’Andrea*, On the Mahler measure of resultants in small dimensions. *J. Pure Appl. Algebra* **209** (2007), no. 2, 393 – 410.
- Mahler measure of some  $n$ -variable polynomial families. *J. Number Theory* **116** (2006), no. 1, 102 – 139.
- On certain combination of colored multizeta values. *J. Ramanujan Math. Soc.* **21** (2006), no. 1, 115 – 127.
- Mahler measure and volumes in hyperbolic space. *Geom. Dedicata* **107** (2004), 211 – 234.
- Some examples of Mahler measures as multiple polylogarithms. *J. Number Theory* **103** (2003), no. 1, 85 – 108.

#### SUBMITTED WORK / WORK IN PROGRESS

- *Joint with Tushant Mittal*, The Mahler measure for arbitrary tori. Submitted, August 2017.
- *Joint with Alina Bucur, Alina Cojocaru, and Lillian Pierce*, Geometric generalizations of the square sieve and applications to cyclic covers. In progress.

#### NON-REFEREED PUBLICATIONS

- Higher Mahler measure as a Massey product in Deligne Cohomology. Low-dimensional Topology and Number Theory. Abstracts from the workshop held August 15-August 21, 2010. Organized by Paul E. Gunnells, Walter Neumann, Adam S. Sikora and Don Zagier. Oberwolfach Reports. Vol. 7, no. 3. *Oberwolfach Rep.* **7** (2010), no. 3, 2101 – 2163.

#### THESES

- Some relations of Mahler measure with hyperbolic volumes and special values of  $L$ -functions, Doctoral Dissertation, *University of Texas at Austin*. (August 2005).
- Introducción a las Curvas Elípticas (Spanish for: Introduction to Elliptic Curves), Tesis de Licenciatura, *Universidad de Buenos Aires*. (December 1999).

#### TEACHING EXPERIENCE

- 2010- Assoc./Assist. Prof., Département de mathématiques et de statistique, Université de Montréal  
 Courses: Algebraic Number Theory, Galois Theory, Number Theory, Complex Analysis, Group Theory, Discrete Mathematics, Calculus 2, Elliptic Curves and Modular Forms
- 2007-2010 Assist. Prof., Department of Mathematical and Statistical Sciences, University of Alberta  
 Courses: Elementary Number Theory, Introduction to Elliptic Curves, Algebraic Number Theory  
 Introduction to Ring Theory
- First Term 2007 Instructor, Department of Mathematics, University of British Columbia  
 Course: Integral Calculus with Applications to Life Sciences
- Spring 2005 Graduate Teaching Assistant, Department of Mathematics, University of Texas at Austin  
 Courses: Advanced Calculus for applications I (First course in Differential Equations), Matrices and Matrix calculations
- 1998-2000 Teaching Assistant, Departamento de Matemáticas, Universidad de Buenos Aires, Argentina  
 Courses: Analysis II, Algebra I, Advanced Calculus, Complex Analysis, Algebra III
- 1996-2000 Trainer in Mathematical Olympiads, Escuela Técnica ORT, Buenos Aires, Argentina

### PROFESSIONAL SOCIETIES

Canadian Mathematical Society  
 American Mathematical Society  
 Mathematical Association of America  
 Association for Women in Mathematics  
 Unión Matemática Argentina

### INVITED WORKSHOP/CONFERENCE TALKS

- A polynomial sieve in a geometric setting. Scientific Session on Analytic Number Theory. 2016 CMS Winter Meeting, Niagara Falls, Ontario, Canada, December 2016.
- The distribution of points on families of curves over finite fields. Thematic Session on Finite Fields. XXI Coloquio Latinoamericano de Álgebra, Buenos Aires, Argentina, July 2016.
- The Mahler measure of a Weierstrass form. Thematic Session on Number Theory. XXI Coloquio Latinoamericano de Álgebra, Buenos Aires, Argentina, July 2016.
- Polylogarithms and multizeta values in Mahler measure. Scientific Session on Analytic number theory and Diophantine equations. 2016 CMS Summer Meeting, Edmonton, Alberta, Canada, June 2016.
- The distribution of points on cyclic  $\ell$ -covers of genus  $g$ . Invited Special Session. Canadian Number Theory Association XIV Meeting, University of Calgary, Calgary, Alberta, Canada, June 2016.
- Polylogarithms and multizeta values in Mahler measure and its generalizations. Workshop on Polylogarithms, Multizeta Values, and Mahler measures. Tohoku University, Sendai, Japan, March 2016.
- Special values of elliptic curve  $L$ -functions arising from Mahler measure. A conference in Number Theory celebrating the 65th birthday of R. Balasubramanian. The Institute of Mathematical Sciences (IMSc), Chennai, India, December 2015.
- The Mahler measure of elliptic curves. Computational Aspects of  $L$ -functions. Institute for Computational and Experimental Research in Mathematics (ICERM), Providence, Rhode Island, USA, November 2015.



- The Mahler measure of elliptic curves. The Geometry, Algebra and Analysis of Algebraic Numbers. Banff International Research Station for Mathematical Innovation and Discovery (BIRS), Banff, Alberta, Canada, October 2015.
- The Mahler measure of elliptic curves. Illinois Number Theory Conference. University of Illinois at Urbana-Champaign, Illinois, USA, August 2015.
- Higher Mahler measure of some  $n$ -variable polynomial families. Special Session on Computational Number Theory. Applied Mathematics, Modeling and Computational Science conference and the Canadian Applied and Industrial Mathematics Society meeting (AMMCS-CAIMS-2015). Wilfrid Laurier University, Waterloo, Ontario, Canada, June 2015.
- The Mahler measure of elliptic curves. Scientific Session on Number Theory. 2015 CMS Summer Meeting, Charlottetown, Prince Edward Island, Canada, June 2015.
- Mahler measure and elliptic curve  $L$ -functions at  $s = 3$ . Cohomological Realizations of Motives. Banff International Research Station for Mathematical Innovation and Discovery (BIRS), Banff, Alberta, Canada, December 2014.
- The distribution of points on cyclic  $\ell$ -covers of genus  $g$ . Conférence de Théorie des Nombres Québec-Maine. Université Laval, Québec, Québec, Canada, September 2014.
- Mahler measure and  $L(E, 3)$ . ELEFANT: Emerging Leaders and Evolving Frontiers in Analytic Number Theory. Hausdorff Center for Mathematics, Bonn, Germany, July 2014.
- Mahler measure and special values of  $L$ -functions. 5th Montréal-Toronto Workshop in Number Theory. Fields Institute, Toronto, Ontario, Canada, November 2013.
- Mahler measure and special values of  $L$ -functions of elliptic curves. Workshop on Number Theory with a view towards Transcendence and Diophantine Approximation. University of Ottawa, Ottawa, Ontario, Canada, June 2013.
- Statistics for the number of points of Artin–Schreier curves over finite fields. AMS Special Session on  $L$ -functions and Arithmetic Geometry. 2013 Joint Mathematics Meetings, San Diego, California, USA, January 2013.
- A curious secant sum. Conférence de Théorie des Nombres Québec-Maine. Université Laval, Québec, Québec, Canada, September 2012.
- Mahler measures of some  $K3$  surfaces. Invited Special Session. Canadian Number Theory Association XII Meeting, University of Lethbridge, Lethbridge, Alberta, Canada, June 2012.
- Distribution of zeta zeroes of Artin–Schreier curves. Hawaii Conference in Algebraic Number Theory, Arithmetic Geometry and Modular Forms. University of Hawaii, Honolulu, Hawaii, USA, March 2012.
- Mahler measures of some  $K3$  surfaces. AMS Special Session on Arithmetic Geometry. 2012 Spring Western Section Meeting, Honolulu, Hawaii, USA, March 2012.
- Distribution of zeta zeros of Artin–Schreier curves. Scientific Session on Analytic Number Theory and Diophantine Approximation. 2011 CMS Winter Meeting, Toronto, Ontario, Canada, December 2011.
- Unimodularity of roots of self-inversive polynomials. 3rd Montréal-Toronto Workshop in Number Theory. Fields Institute, Toronto, Ontario, October 2011.

- Higher Mahler measure and Lehmer's question. Special Session on Arithmetic Aspects of Numerical Solving. 2011 SIAM Conference on Applied Algebraic Geometry. North Carolina State University, Raleigh, North Carolina, October 2011.
- A proof of a conjecture concerning  $\zeta(2j+1)/\pi^{2j+1}$ . Special Session on Computational Number Theory. Applied Mathematics, Modeling and Computational Science conference (AMMCS-2011). Wilfrid Laurier University, Waterloo, Ontario, Canada, July 2011.
- Relations between Mahler measure and special values of  $L$ -functions. Cuartas Jornadas de Teoría de Números. Bilbao, Spain, July 2011.
- Higher Mahler measure. Conference in Number Theory II: Advances in Modern Number Theory. Carleton University, Ottawa, Ontario, Canada, June, 2011.
- Remarks on  $\zeta(2j+1)/\pi^{2j+1}$  and variants of the Ramanujan polynomials. Scientific Session on  $L$ -Functions and Number Theory. 2011 CMS Summer Meeting, Edmonton, Alberta, Canada, June 2011.
- Higher Mahler measures. Heights in Diophantine and Arakelov Geometry, Dynamical Systems and Computer Algebra (Heights 2011). Tossa del Mar, Spain, April 2011.
- Higher Mahler measure and Lehmer's question. Scientific Session on Computational Number Theory. 2010 CMS Winter Meeting, Vancouver, British Columbia, Canada, December 2010.
- Higher Mahler measure and Lehmer's question. Conférence de Théorie des Nombres Québec-Maine. Université Laval, Québec, Québec, Canada, October 2010.
- Higher Mahler measure and Lehmer's question. Invited Special Session. Canadian Number Theory Association XI Meeting, Acadia University, Wolfville, Nova Scotia, Canada, July 2010.
- Higher Mahler measures. AMS Special Session on Geometric Aspects of Link and 3-manifold Invariants. 2010 Joint Mathematics Meetings, San Francisco, California, USA, January 2010.
- Statistics for traces of cyclic trigonal curves over finite fields. Scientific Session on Number Theory. 2009 CMS Winter Meeting, Windsor, Ontario, Canada, December 2009.
- Higher Mahler measures. Workshop on Discovery and Experimentation in Number Theory. Fields Institute, Toronto, Ontario, and IRMACS, Simon Fraser University, Burnaby, British Columbia, Canada, September 2009.
- Mahler measures under variations of the base group. Zetas and Limit Laws 2008. Okinawa Convention Center, Okinawa, Japan, November 2008.
- Higher Mahler measures. Zetas and Limit Laws 2008. Okinawa Convention Center, Okinawa, Japan, November 2008.
- Higher Mahler measures. Number Theory Day at the University of Lethbridge. University of Lethbridge, Lethbridge, Alberta, Canada, May 2008.
- Hyperbolic volumes and zeta values, an introduction. Session on Algebraic Topology and Algebraic Geometry. Annual North/South Dialogue in Mathematics, Calgary, Alberta, Canada, May 2008.

- Mahler measures in group rings. ABC Algebra Workshop. Simon Fraser University, Burnaby, British Columbia, Canada, April 2008.
- Mahler measures under variations of the base group. AMS Special Session on Number Theory and Applications in Other Fields. Spring Southeastern Meeting, Baton Rouge, Louisiana, USA, March 2008.
- Functional equations for Mahler measures of genus-one curves. Mahler Measures conference. Tokyo Institute of Technology, Tokyo, Japan, December 2007.
- Regulators and computations of Mahler measures. Mahler Measures conference. Tokyo Institute of Technology, Tokyo, Japan, December 2007.
- Mahler measure under variations of the base group. Low-dimensional Topology and Number Theory. Banff International Research Station for Mathematical Innovation and Discovery (BIRS), Banff, Alberta, Canada, October 2007.
- Polylogarithms and hyperbolic volumes. Hyperbolic Volume 2007. University of Fribourg, Fribourg, Switzerland, July 2007.
- Mahler measure under variations of the base group. A second time around the Volume Conjecture. Louisiana State University, Baton Rouge, Louisiana, USA, June 2007.
- On the Mahler measure of resultants in small dimensions. AMS Special Session on Mahler Measure and Heights. 2006 Joint Mathematics Meetings, San Antonio, Texas, USA, January 2006.
- Regulators and computations of Mahler measure. Mahler Measure in Mobile. University of South Alabama, Mobile, Alabama, USA, January 2006.
- An algebraic integration for Mahler measure. Variations on Mahler's Measure. Centre International de Rencontres Mathématiques (CIRM), Luminy, France, June 2005.
- Examples of Mahler Measures as Multiple Polylogarithms. The Many Aspects of Mahler's Measure. Banff International Research Station for Mathematical Innovation and Discovery (BIRS), Banff, Alberta, Canada, April 2003.

#### INVITED SEMINAR/COLLOQUIUM TALKS

- Special values of  $L$ -functions of elliptic curves arising from Mahler measure. Analytic Number Theory Seminar, Nagoya University, Nagoya, Japan, April 2016.
- The distribution of points on cyclic  $\ell$ -covers of genus  $g$ . Number Theory Seminar, Duke University, Durham, North Carolina, USA, February 2016.
- The distribution of points on cyclic  $\ell$ -covers of genus  $g$ . Number Theory Seminar, University of Waterloo, Waterloo, Ontario, Canada, January 2016.
- $L$ -functions of elliptic curves arising from Mahler measure. Colloquium, Mathematics, Indian Institute of Science Education and Research (IISER), Pune, India, December 2015.
- The Mahler measure of elliptic curves. Number Theory Seminar, University of British Columbia, Vancouver, British Columbia, Canada, November 2015.
- Mahler measure and special values of  $L$ -functions. Number Theory Seminar, Dalhousie University, Halifax, Nova Scotia, Canada, April 2013.

- Mahler measure and special values of  $L$ -functions. Collaborative Number Theory Seminar, The Graduate Center, The City University of New York, New York, USA, March 2013.
- Mahler measures of some  $K3$ -surfaces. Number Theory Seminar, University of Waterloo, Waterloo, Ontario, Canada, August 2012.
- Mahler measures as special values of  $L$ -functions. Colloque des mathématiques de Montréal CRM-ISM, Montréal, Québec, Canada, February 2011.
- Some aspects of higher Mahler measure. Number Theory Seminar, University of Rochester, Rochester, New York, USA, October 2010.
- On higher Mahler measures. Québec-Vermont Number Theory Seminar, Concordia University, Montréal, Québec, Canada, November 2009.
- So you think you can count? (Statistics for traces of cyclic trigonal curves over finite fields). MIT Women in Mathematics Lecture Series, Massachusetts Institute of Technology, Cambridge, Massachusetts, USA, February 2009.
- Mahler measure and special values of  $L$ -functions. Seminar, Université de Montréal, Montréal, Québec, Canada, October 2008.
- Mahler measure and regulators. Colloquium, University of Calgary, Calgary, Alberta, Canada, March 2008.
- Mahler measure and regulators. Québec-Vermont Number Theory Seminar, McGill University, Montréal, Québec, Canada, March 2008.
- Hyperbolic volumes and random walks in Cayley graphs. Colloquium, Universidad de Buenos Aires, Buenos Aires, Argentina, December 2007.
- Functional equations for Mahler measures of genus-one curves. Algebraic Geometry Seminar, University of Chicago, Chicago, Illinois, USA, April 2007.
- Mahler measure and regulators. Special Seminar, University of Alberta, Edmonton, Alberta, Canada, March 2007.
- Functional equations for Mahler measures of genus-one curves. Topology Seminar, Louisiana State University, Baton Rouge, Louisiana, USA, November 2006.
- Mahler measure of multivariable polynomials. Pure Mathematics Research Seminar, University of East Anglia, Norwich, England, August 2006.
- Functional equations for Mahler measures of genus-one curves. Heilbronn Seminar Series, University of Bristol, Bristol, England, August 2006.
- Some aspects of the multivariable Mahler measure. Séminaire de théorie des nombres de Chevaleret, Institut de mathématiques de Jussieu, Paris, France, June 2006.
- Mahler measure and evaluations of regulators. Barcelona Number Theory Seminar, Facultat de Matemàtiques i Estadística de la Universitat Politècnica de Catalunya, Barcelona, Spain, June 2006.
- Mahler measure and evaluations of regulators. MSRI-UC Berkeley Number Theory Seminar, Mathematical Sciences Research Institute, Berkeley, California, USA, May 2006.
- Mahler measure of multivariable polynomials and polylogarithms. Geometry-Topology Seminar, Georgia Institute of Technology, Atlanta, Georgia, USA, April 2006.

- Multivariable Mahler measure and regulators. Members Seminar, Institute for Advanced Study, Princeton, New Jersey, USA, March 2006.
- Some aspects of the multivariable Mahler measure. Topology Seminar, Louisiana State University, Baton Rouge, Louisiana, USA, March 2006.
- Mahler measures as values of regulators. SFU/UBC Number Theory Seminar, University of British Columbia, Vancouver, British Columbia, Canada, February 2006.
- Mahler measure and values of regulators. Members Seminar, Institute for Advanced Study, Princeton, New Jersey, USA, October 2005.
- Some aspects of Mahler measure. Colloquium, Universidad de Buenos Aires, Buenos Aires, Argentina, July 2005.
- Mahler measure of several-variable polynomials. Oberseminar Geometrie, University of Fribourg, Fribourg, Switzerland, June 2005.
- Mahler measure and 3-hyperbolic volumes. Oberseminar Geometrie, University of Fribourg, Fribourg, Switzerland, June 2005.
- Some aspects of Mahler measure. Number Theory Seminar, Texas A&M University, College Station, Texas, USA, March 2005.
- Some aspects of Mahler measure. Colloquium, University of Colorado at Boulder, Boulder, Colorado, USA, February 2005.
- On Mahler measure of several-variable polynomials and polylogarithms. Zeta Functions Seminar, University of California at Berkeley, Berkeley, California, USA, May 2004.
- Introduction to Mahler Measure. Colloquium, Universidad de Buenos Aires, Buenos Aires, Argentina, July 2003.

#### INVITED GENERAL AUDIENCE TALKS

- Ellipses, elliptic curves, secrets, and a million dollars. Club mathématique, Université de Montréal, Montréal, Québec, Canada, September 2016.
- The mathematics of Rubik's cube. Women in Math Winter Lecture, University of Waterloo, Waterloo, Ontario, Canada, January 2016.
- Journey into the world of the dilogarithm. Club mathématique, Université de Montréal, Montréal, Québec, Canada, November 2015.
- We continue with continued fractions. Club mathématique, Université de Montréal, Montréal, Québec, Canada, November 2014.
- The unreal world of  $p$ -adic numbers. Club mathématique, Université de Montréal, Montréal, Québec, Canada, March 2014.
- The mathematics of Rubik's cube. Seminars in Undergraduate Mathematics in Montréal, Concordia University, Montréal, Québec, Canada, January 2014.
- The mathematics of Rubik's cube. Mathematics Summer Research Workshop, Champlain College, St-Lambert, Québec, Canada, June 2012.
- The many aspects of Mahler measure: Number theory and beyond. Summer School, Institut des sciences mathématiques, Montréal, Québec, Canada, May 2012.

- The mathematics of Sudoku. Club mathématique, Université de Montréal, Montréal, Québec, Canada, April 2012.
- The mathematics of Rubik's cube. Club mathématique, Université de Montréal, Montréal, Québec, Canada, April 2011.
- The Riemann Hypothesis. Graduates of Alberta Mathematics Etc. (GAME) Seminar, Special Series on History of Mathematics, University of Alberta, Edmonton, Alberta, Canada, March 2008.
- Introduction to modular forms. Graduate Topology class at Louisiana State University, Baton Rouge, Louisiana, USA, November 2006.

## OTHER TALKS

- Mahler measure for arbitrary tori. Low-Dimensional Topology and Number Theory. Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany, August 2017.
- The Mahler measure of elliptic curves. Algebraic cycles and moduli. Centre de recherches mathématiques, Montréal, Québec, Canada, June 2016.
- Higher Mahler measure of certain  $n$ -variable families. Sextas Jornadas de Teoría de Números. Valladolid, Spain, June 2015.
- The square sieve. WIN3 Women in Numbers 3. Banff International Research Station for Mathematical Innovation and Discovery (BIRS), Banff, Alberta, Canada, April 2014.
- Introduction to Mahler measure. WIN2 Women in Numbers 2. Banff International Research Station for Mathematical Innovation and Discovery (BIRS), Banff, Alberta, Canada, November 2011.
- Higher Mahler measure as a Massey product in Deligne Cohomology. Low-Dimensional Topology and Number Theory. Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany, August 2010.
- Statistics for the number of points on cyclic trigonal curves and other families of curves over finite fields. West End Number Theory Seminar, University of Calgary, University of Alberta, and University of Lethbridge (web-broadcast), Alberta, Canada, February 2010.
- On a conjecture by Boyd. Canadian Number Theory Association X Meeting, University of Waterloo, Waterloo, Ontario, Canada, July 2008.
- Mahler measure and hyperbolic volumes. Algebra Seminar, University of Alberta, Edmonton, Alberta, Canada, November 2007.
- Variations of the base group in Mahler measure. Segundas Jornadas de Teoría de Números, Madrid, Spain, July 2007.
- Mahler measure under variations of the base group. Number Theory Lunch Seminar, Max-Planck-Institut für Mathematik, Bonn, Germany, July 2007.
- Functional equations for Mahler measures of genus-one curves. 25th Journées Arithmétiques, University of Edinburgh and ICMS, Edinburgh, Scotland, UK, July 2007.

- Functional equations for Mahler measures of genus-one curves. SFU/UBC Number Theory Seminar, University of British Columbia, Vancouver, British Columbia, Canada, October 2006.
- Functional equations for Mahler measures of genus-one curves. Number Theory Lunch Seminar, Max-Planck-Institut für Mathematik, Bonn, Germany, August 2006.
- Mahler measure of polynomials. Postdoc Seminar, Mathematical Sciences Research Institute, Berkeley, California, USA, April 2006.
- Project Talk: Multi-zeta values. Arizona Winter School, Fundamental Groups in Arithmetic, Albuquerque, New Mexico, USA, March 2005.
- Project Talk: Periods and Zeta Functions. Arizona Winter School, Number Theory and Physics, Austin, Texas, USA, March 2004.
- Examples of Mahler Measures as special values of the Riemann Zeta function and  $L$ -series. Mahler's Measure of Polynomials. Simon Fraser University, Burnaby, British Columbia, Canada, June 2003.
- Project Talk: Hilbert's Tenth Problem for Rings of Integers of Number Fields. Arizona Winter School, Logic and Number Theory, Tucson, Arizona, USA, March 2003.

## ACADEMIC SERVICE

### CONFERENCE/SEMINAR ORGANIZATION AND SCIENTIFIC COMMITTEES

- Scientific Committee member. Canadian Number Theory Association XV Meeting, Université Laval, Québec, Québec, Canada, July 2018.
- Selection and Organization Committee member. AWM Poster Session for graduate students. 2018 Joint Mathematics Meetings, San Diego, California, USA, January 2018.
- Judge. MCA Student Poster Session. Mathematical Congress of the Americas 2017, Montréal, Canada, July 2017.
- Co-Organizer (with A. Salerno). MCA Special Session on Arithmetic Geometry and Related Topics. Mathematical Congress of the Americas 2017, Montréal, Canada, July 2017.
- Scientific Committee member. Séptimas Jornadas de Teoría de Números, Lleida, Spain, June 2017.
- Selection and Organization Committee member. AWM Poster Session for graduate students. 2017 Joint Mathematics Meetings, Atlanta, Georgia, USA, January 2017.
- Co-Organizer (with P. Brosnan, M. Kerr, R. Laza, J. D. Lewis, G. Pearstein, and C. Robles). Algebraic cycles and moduli. Centre de recherches mathématiques, Montréal, Québec, Canada, June 2016.
- Scientific Committee member. Arithmetic  $L$ -functions and Differential Geometric Methods (Regulators IV), IMJ-PRG, Paris, France, May 2016.
- Co-Organizer (with M. Manes and C. Vincent). AMS Special Session on Number Theory and Cryptography. 2016 Joint Mathematics Meetings, Seattle, Washington, USA, January 2016.

- Co-Organizer (with D. Fiorilli, N. Jones, and D. Koukoulopoulos). CMS Scientific Session on Analytic Number Theory. 2015 CMS Winter Meeting, Montréal, Québec, Canada, December 2015.
- Scientific Committee member. Sextas Jornadas de Teoría de Números, Valladolid, Spain, June-July 2015.
- Judge. Poster Session for graduate students and recent PhDs. AWM Research Symposium 2015, College Park, Maryland, USA, April 2015.
- Co-Organizer (with W. Ho and J. Fuselier). Special Session on Number Theory. AWM Research Symposium 2015, College Park, Maryland, USA, April 2015.
- Co-Organizer (with H. Darmon and W. Zudilin). Regulators, Mahler measures, and special values of  $L$ -functions. Thematic Year on Number Theory, from Arithmetic statistics to Zeta elements. Centre de recherches mathématiques, Montréal, Québec, Canada, February 2015.
- Steering Committee member. Two Weeks at WATERLOO II - A Summer School for Women in Math. University of Waterloo, Waterloo, Ontario, Canada, August 2014.
- Co-Organizer (with F. Luca and N. Pitt). MCA Special Session on Number Theory. Mathematical Congress of the Americas 2013, Guanajuato, Mexico, August 2013.
- Scientific Committee member. Quintas Jornadas de Teoría de Números, Sevilla, Spain, July 2013.
- Co-Organizer (with C. David and A. Granville). CMS Scientific Session on Analytic Number Theory. 2012 CMS Winter Meeting, Montréal, Québec, Canada, December 2012.
- Co-Organizer (with C. David and M. Manes). Women in Numbers 2. Banff International Research Station for Mathematical Innovation and Discovery (BIRS), Banff, Alberta, Canada, November 2011.
- Co-Organizer (with A. Bucur and C. David). AMS Special Session on  $L$ -Functions and Analytic Number Theory. 2010 Joint Mathematics Meetings, San Francisco, California, USA, January 2010.
- Collaborated in the organization (main organizers: G. Cliff and J. Kuttler). PIMS Undergraduate Algebra Summer School 2009, University of Alberta, Edmonton, Alberta, Canada, May 2009.
- Co-Organizer (with N. Bruin and G. Martin). AMS Special Session on West End Number Theory. 2008 Fall Western Section Meeting, University of British Columbia and the Pacific Institute of Mathematical Sciences, Vancouver, British Columbia, Canada, October 2008.
- Co-Organizer (with J. D. Lewis and X. Chen). Regulators and Heights in Algebraic Geometry, University of Alberta, Edmonton, Alberta, Canada, April 2008.
- Organizer. Ivan and Betty Niven Distinguished Lectures, University of British Columbia, Vancouver, British Columbia, Canada, March 2007.
- Organizer. Research Seminar, Zeta functions all the way. Program for Women and Mathematics. Institute for Advanced Study and Princeton University, Princeton, New Jersey, USA, May 2006.



- Co-Organizer (with C. D. Sinclair). Junior Number Theory Seminar, University of Texas at Austin, Texas, USA, January-May 2004.

#### **SERVICE FOR INSTITUTES, GRANTING AGENCIES, AND PROFESSIONAL SOCIETIES**

- Member, Discovery Grants Program, 1508 - Mathematics and Statistics Evaluation Group (EG). Natural Sciences and Engineering Research Council of Canada (NSERC), 2017-2020.
- Director-Québec, Board of Directors. Canadian Mathematical Society (CMS), 2017-2021.
- Faculty Sponsor. Association for Women in Mathematics (AWM) Montréal Student Chapter, since October 2016.
- Ambassador for Canada. IMU Committee for Women in Mathematics (CWM), International Mathematical Union, since August 2016.
- Selection Committee member. Carl Herz Prize, Institut des sciences mathématiques (ISM), 2016.
- Meetings Committee member. Association for Women in Mathematics (AWM), 2016-2019.
- Evaluation Committee chair. Master's fellowships in Mathematics, Fonds de Recherche du Québec-Nature et technologies (FRQNT), 2016, 2017 (two consecutive years).
- Program Committee member. Banff International Research Station for Mathematical Innovation and Discovery (BIRS), 2015, 2016, 2017 (three consecutive years).
- Scientific Advisory Board member. Banff International Research Station for Mathematical Innovation and Discovery (BIRS), 2015-2018.
- CRM-ISM postdoctoral fellowship Selection Committee. Centre de recherches mathématiques-Institut des sciences mathématiques, 2013, 2014 (two consecutive years).
- Steering Committee member. Women in Numbers, since November 2011.
- Panelist. National Science Foundation (NSF), 2010.
- Reviewer. National Security Agency (NSA), 2010, 2011; Natural Sciences and Engineering Research Council of Canada (NSERC) 2014, 2017; and National Evaluation and Foresight Agency (ANEP), Spain, 2015.

#### **EDITORIAL AND REVIEW SERVICE**

- Editor (with J. Balakrishnan, A. Folsom, and M. Manes). Proceedings of WIN4-Women in Number Theory, 2017-present.
- Editor (with C. David and M. Manes). Proceedings of WIN2-Women in Number Theory, 2012-2013.
- Referee for The Ramanujan Journal; Journal of Number Theory; Experimental Mathematics; Journal of Symbolic Computation; International Symposium on Symbolic and Algebraic Computation 2007; IV Latin-American Algorithms, Graph, and Optimization Symposium 2007; American Mathematical Monthly; Proceedings of the American Mathematical Society; Canadian Mathematical Bulletin; Mathematical Proceedings of the Cambridge Philosophical Society; 10th Algorithmic Number Theory

Symposium; Rocky Mountain Journal of Mathematics; Acta Arithmetica; International Mathematics Research Notices; Algebra and Number Theory; Journal of the London Mathematical Society; Annales mathématiques du Québec; Canadian Journal of Mathematics; Proceedings of the London Mathematical Society; Transactions of the American Mathematical Society; Uniform Distribution Theory; Mathematische Annalen; Publicacions Matemàtiques; International Journal of Number Theory.

- Reviewer for Mathematical Reviews, Zentralblatt MATH.

#### UNIVERSITY SERVICE

- Department Committee Member (Université de Montréal): Putnam Exam Committee, Chair 2010-2013, Member 2014-2015, 2017-present; Synthesis Exam in Algebra, Chair 2014-2015, Member 2016-2017, Chair 2017-present; Alma-mater, Prizes, Distinctions, and Alumni, 2014-2015, 2016-present; Graduate Studies in Mathematics, 2016-2017; Evaluation of Probationary Lecturers, 2016-2017; Evaluation of NSERC CGS-Scholarship Applications, 2017; Promotion to Associate Professor with Tenure, 2016; Reform of the General Synthesis Exam in Mathematics, 2015; Reform of the Synthesis Exam in Algebra, 2015; Inter-University Exchange Program, 2014-2015; Assistant Professor Renewal, 2014; Mathematics Graduate Students Seminar 2012-2013; Scientific Council 2012; Hiring Departmental Committee 2011-2012 (Assistant Professorship in Analytic Number Theory). (University of Alberta): Josephine M. Mitchell Scholarships Committee 2009-10 (Scholarships, Prizes, and Awards for graduate students); Hiring Departmental Committee 2009-10 (Assistant Professorship in Number Theory); Undergraduate Honors Committee 2008-09; Hiring Departmental Committee 2007-08 (Max Wyman Assistant Professorship in Number Theory)
- Faculty Committee Member: Internal member of the Chair Nomination Committee for the Department of Mathematics and Statistics, Université de Montréal 2016-17; External member of the Chair Nomination Committee for the Department of Physics, Université de Montréal 2012-13

#### EXTERNAL TEACHING

- Instructor. PIMS-SFU undergraduate summer school on multiple zeta values, Simon Fraser University, Burnaby, Canada, July 2014. Mini-course: “Applications of multi-zeta values to Mahler measure”.
- Instructor. Two Weeks at WATERLOO - A Summer School for Women in Math. University of Waterloo, Waterloo, Ontario, Canada, August 2012. Mini-course: “Introduction to elliptic curves”.

#### OUTREACH SERVICE

- Panelist. “Women in Mathematics Evening”, Canadian Undergraduate Mathematical Conference, Concordia University, July 2017.
- Presenter. “Mathematics and Rubik’s cube”, Project for University Studies and Research Awareness (Projet SEUR), Université de Montréal, June 2015, July 2016, June 2017. Gave talks about the academic career in mathematics and the Rubik’s cube to 30 high-school students.
- Instructor. “Rubik’s cube”, Summer Math Camp, Association Mathématique du Québec (AMQ), Université de Montréal, June 2016. Animated a three-hour-long workshop for 20 gifted college students.

- Co-Author (with Y. Liu and G. Martin). “Survey on childcare resources at conferences for the Canadian mathematical community” distributed by the Canadian Mathematical Society (CMS), November 2015.
- Instructor. “The unreal world of  $p$ -adic numbers”, Summer Math Camp, Association Mathématique du Québec (AMQ), Université de Montréal, June 2015. Animated a three-hour-long workshop for 20 gifted college students.
- Exhibition Stand. “The mathematics of Rubik’s cube”, as part of the exhibitions: “À la lumière des mathématiques”, 10e édition des 24 heures de science, Université de Montréal, May 2015 and “Incontournables mathématiques!”, 9e édition des 24 heures de science, Université de Montréal, May 2014.
- Presenter. “The Platonic Solids”, to a preschool class (about 20 kids aged 5-6 years), École primaire Marc-Favreau, Montréal, February 2015.
- Author. “Attending conferences with small children”, invited article published in the blog “What’s new” by Terry Tao, August 2014.
- Panelist. “Women in Math”, Canadian Undergraduate Mathematical Conference, Université de Montréal, July 2013.
- Volunteer. Women in Scholarship, Engineering, Science and Technology (WISEST). University of Alberta, 2007-09. Helped organizing Mathematical activities with CHOICES, a Conference for Grade Six Girls. Participated as a role model in SET, a Science, Engineering and Technology Experience for Girls in Grades 10 to 12.
- Panelist. “So, You Want to be an Academic?”, Workshop for Graduate Students and Postdoctoral Fellows, Career and Placement Services (CAPS), University of Alberta, October 2008.
- Panelist. New Professor Orientation, University Teaching Services, University of Alberta, August 2008.
- Presenter. “If I only had known”, 2008 Science New Faculty Orientation, University of Alberta, August 2008.
- Panelist. “A day in the life of a mathematician”, Program for Women and Mathematics. Institute for Advanced Study and Princeton University, Princeton, New Jersey, USA, May 2006.

## PARTICIPATION IN MATHEMATICAL OLYMPIADS

### Main Awards

- Iberoamerican University Mathematics Olympiad: Silver Medal (1999), Bronze Medal (1998).
- Asian Pacific Mathematics Olympiad: Silver Award (1995), Bronze Award (1994, 1996).
- International Tournament of the Towns: Honorable Mention (1994/95, 1995/96).
- International Mathematical Olympiad: Silver Medal (1995).
- Iberoamerican Mathematical Olympiad: Silver Medal (1994), Bronze Medal (1993).
- Iberoamerican Team Mathematical Competition: 2nd Prize (1994).

- Rioplatense Mathematical Olympiad: Gold Medal (1995), Bronze Medal (1992, 1993).
- Cono Sur Mathematical Olympiad: Bronze Medal (1992).
- National Mathematical Olympiad (Argentina): 1st Prize (1992, 1995), 2nd Prize (1993), Honorable Mention (1994).

**Other Activities and Service Related to Mathematical Olympiads**

- International Jury Executive Member and Coordinator. LIII International Mathematical Olympiad. Argentina, 2012.
- Coordinator. XLIX International Mathematical Olympiad. Spain, 2008.
- Deputy leader of the Argentinian team. XII Cono Sur Mathematical Olympiad. Chile, 2001.
- Coordinator. X Cono Sur Mathematical Olympiad. Argentina, 1999.
- Coordinator. XXXVIII International Mathematical Olympiad. Argentina, 1997.

**LANGUAGES**

English (Fluent)  
French (Fluent)  
Spanish (Native speaker)  
Portuguese (Basic)  
German (Some knowledge)