

CURRICULUM VITAE

Saraí Hernández-Torres

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RESEARCH INTERESTS

Discrete Probability: uniform spanning forests, loop-erased random walks, growth processes, random walks, random trees, percolation models with long-range correlations, and their scaling limits.

ACADEMIC POSITIONS

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|--------------------------|---|
| July 2022
–present | INVESTIGADORA ASOCIADA C
Instituto de Matemáticas,
Universidad Nacional Autónoma de México (UNAM)
Mexico City, Mexico |
| Oct. 2020
– June 2022 | POSTDOCTORAL FELLOW
Technion – Israel Institute of Technology , Haifa, Israel
Hosts: Prof. Eviatar Procaccia and Prof. Ron Rosenthal |

EDUCATION

- | | |
|------|--|
| 2020 | Ph.D. in MATHEMATICS
University of British Columbia , Vancouver, Canada
Thesis: “A Macroscopic View on Two Discrete Random Processes”
Supervisors: Prof. Omer Angel and Prof. Martin Barlow |
| 2016 | M.Sc. in MATHEMATICS
University of British Columbia , Vancouver, Canada
Essay: “Collisions of Trajectories and Random Walks”
Supervisor: Prof. Martin Barlow |
| 2014 | B.Sc. in MATHEMATICS
Universidad de Guanajuato -
Centro de Investigación en Matemáticas (CIMAT) , Guanajuato, Mexico
Thesis: “Introducción a los Espacios de Bergman”
Supervisor: Prof. Fernando Galaz Fuentes |

PUBLICATIONS & PREPRINTS

9. *Chase-escape with conversion as a multiple sclerosis lesion model*,
E. Bailey, E. Beckman, S. Hernández-Torres, M. Junge, A. Kumar, A. Lee, D. Li, A. Raufov,
L. Reeves and O. Rondel
arXiv e-print: [2507.21235](#).
8. *Allele trees for the mother-dependent neutral mutations model and their scaling limits
in the rare mutations regime*,
A. Blancas, M. C. Fittipaldi and S. Hernandez-Torres.
arXiv e-print: [2504.20030](#).

7. *Sharp one-point estimates and Minkowski content for the scaling limit of three-dimensional loop-erased random walk*,
S. Hernandez-Torres, X. Li and D. Shiraishi.
Preprint. arXiv e-print: [2403.07256](#).
6. *Crossing bridges between percolation models and Bienaymé-Galton-Watson trees*,
A. Blancas, M. C. Fittipaldi and S. Hernandez-Torres.
To appear in **XIV Symposium on Probability and Stochastic Processes**.
arXiv e-print: [2411.09621](#).
5. *Distance-dependent chase-escape on trees*,
S. Hernandez-Torres, M. Junge, N. Ray and N. Ray.
New Zealand Journal of Mathematics, Volume 55, 31–41, 2024.
DOI: [10.53733/342](#). arXiv e-print: [2209.09876](#).
4. *The chemical distance in random interlacements in the low-intensity regime*,
S. Hernandez-Torres, E. B. Procaccia and R. Rosenthal.
Communications in Mathematical Physics, Volume 400, 1697–1737, 2023.
DOI: [10.1007/s00220-023-04634-8](#). arXiv e-print: [2112.13390](#).
3. *Scaling limit of the three-dimensional uniform spanning tree and the associated random walk*,
O. Angel, D. A. Croydon, S. Hernandez-Torres and D. Shiraishi.
Annals of Probability, Volume 49, Number 6 (November 2021), 3032–3105.
DOI: [10.1214/21-AOP1523](#). arXiv e-print: [2003.09055](#).
2. *The number of spanning clusters of the uniform spanning tree in three dimensions*,
O. Angel, D. A. Croydon, S. Hernandez-Torres and D. Shiraishi.
Advanced Studies in Pure Mathematics, 2021: 403–414 (2021) (Stochastic Analysis, Random Fields and Integrable Probability – Fukuoka 2019. Vol. 87).
DOI: [10.2969/aspm/08710403](#). arXiv e-print: [2003.04548](#).
1. *Chase-escape with death on trees*,
E. Beckman, K. Cook, N. Eikmeier, S. Hernandez-Torres and M. Junge.
Annals of Probability, Volume 49, Number 5 (September 2021), 2530–2547.
DOI: [10.1214/21-AOP1514](#). arXiv e-print: [1909.01722](#).

GRANTS

- | | |
|-------------|---|
| 2024 – 2025 | Research project supported by
L'Oréal-UNESCO-Academia Mexicana de Ciencias (AMC)
<i>Geometría emergente en sistemas estocásticos discretos: transiciones de fase y criticalidad</i> |
| 2024 – 2025 | Principal Investigator UNAM-DGAPA-PAPIIT IA103724
<i>Geometría aleatoria en gráficas</i> |

DISTINCTIONS AND AWARDS

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|------|---|
| 2024 | L'Oréal-UNESCO-AMC For Women in Science national fellowship, Mexico
(Beca para Mujeres en la Ciencia L'Oréal-UNESCO-AMC) |
|------|---|

SELECTED SCHOLARSHIPS AND ACHIEVEMENTS

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|-----------|--|
| 2015–2020 | Scholarship for Graduate Studies
Consejo Nacional de Ciencia y Tecnología (Conacyt) |
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2014	Faculty of Science Graduate Award Scholarship for Graduate Studies, University of British Columbia
2009–2014	Scholarship for Undergraduate Studies Centro de Investigación en Matemáticas (CIMAT)
2012, 2014	Academic Excellence Scholarship Secretaría de Educación Pública (SEP)
2012	Academic Excellence Scholarship Universidad de Guanajuato, awarded to the top student in the mathematics degree program for the highest GPA in that academic year.
2008	Mathematical Olympiads: Third place (national level) XXII Olimpiada Mexicana de Matemáticas (Mexican Mathematical Olympiad)

APPOINTMENTS

2022 –2025	Candidate Member of the Mexican National System of Researchers, (Sistema Nacional de Investigadoras e Investigadores, SNII) Secretaría de Ciencia, Humanidades, Tecnología e Innovación (Secihti)
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TALKS

Research talks at conferences

3 plenary talks, 20 invited talks, 4 contributed talks.

- 2025 - International Symposium on Stochastic Processes and Complex Systems, Tohoku Forum for Creativity, Tohoku University, Sendai, Japan (plenary talk) *
- Special session “Recent Developments in Interacting Particle Systems and their Applications”, Mathematical Congress of the Americas (MCA), Miami, USA *
- Special session “Discrete Stochastic Models and Applications”, Mathematical Congress of the Americas (MCA), Miami, USA *
- Invited session “Geometry of Random Walks”, 44th Conference on Stochastic Processes and their Applications (SPA), Wrocław, Poland *
- Montréal - Guanajuato Workshop on Probability and Machine Learning, CIMAT, Guanajuato, Mexico (plenary talk) *
- Connections Workshop: Probability and Statistics of Discrete Structures, SLMATH, Berkeley, USA *
- 2024 - Scientific Session: Recent Progress of Stochastic Analysis, CMS Winter Meeting and Related Fields, Richmond, Canada *
- Workshop: Random Walks, Scaling Limits and Criticality, Herrsching am Ammersee, Germany *
- Statistical Mechanics Beyond 2D, IPAM, UCLA, USA *
- 2023 - XIV Simposio de Probabilidad y Procesos Estocásticos (plenary talk) *
- Discrete Random Structures, Bedlewo, Polonia *
- Potential Theory Workshop, CIMAT, Guanajuato, México *
- XVI Latin American Congress of Probability and Mathematical Statistics (CLAPEM), São Paulo, Brazil *
- 11th International Conference on Stochastic Analysis and its Applications, ICSAA, Edinburgh, UK *
- BUC XXI Meeting. CIMAT, Guanajuato, Mexico *
- 2022 - Analytic and Probabilistic Combinatorics. BIRS, Banff, Canada *
- Special session “Random Trees and Graphs”, 42nd SPA Conference, China ◇*
- 2021 - LXX Reunión de Comunicaciones Científicas, Reunión Anual de la Unión Matemática Argentina, Argentina ◇*
- Special Session: Interacting Stochastic Systems, Mathematical Congress of the Americas (MCA), Argentina ◇*
- 8th Students Probability Day, Weizmann Institute of Science, Israel
- Matemáticos Mexicanos en el Mundo, Casa Matemática Oaxaca, Mexico ◇*

- 2020 - AMS Special Session on Stochastic Spatial Models, JMM, Denver, USA *
- 2019 - XV Latin American Congress of Probability and Mathematical Statistics (CLAPEM), Merida, Mexico
 - 49th Saint-Flour Probability Summer School, Saint-Flour, France
 - 11th Cornell Probability Summer School, Cornell University, USA
 - CMS Summer Meeting, University of Regina, Canada *
- 2018 - Retreat for Young Researchers in Stochastics, BIRS, Canada *

Research talks at seminars

37 talks in seminars.

- 2025 - Kansai Probability Seminar, Kyoto University, Japan
 - Modeling, Computation, Nonlinearity, Randomness and Waves Seminar, University of Arizona, Tucson, USA
 - Mathematical Physics and Probability Seminar, University of Arizona, Tucson, USA
 - Probability Seminar, Duke University, Durham, USA
 - Seminario del Departamento de Matemáticas, ITAM, Mexico City, Mexico
- 2024 - Seminario Aleatorio. ITAM, Mexico City, Mexico
 - Seminario Sistemas Complejos y Física Estadística, Instituto de Física, UNAM, Mexico City, Mexico
 - Seminario de Matemáticas Aplicadas, UAA, Aguascalientes, Mexico
 - CUNY Probability Seminar, CUNY Graduate Center, New York City, USA
 - Aleatorias y Normales - online seminar ◇
- 2023 - Technion Probability Seminar, Technion – IIT, Israel
 - LU-UMN Joint Probability Seminar, Lehigh University - University of Minnesota, USA ◇
 - UBC Probability Seminar, University of British Columbia, Canada
- 2022 - Los Angeles Probability Forum, UCLA, USA
 - Seminario de Probabilidad y Procesos Estocásticos, UNAM, Mexico
 - Seminario de Probabilidad, CIMAT, Guanajuato, Mexico
 - Probability Seminar, University of Cambridge, UK
 - Probability Seminar, Technische Universität München, Germany
 - Percolation Today ◇
 - Probability Seminar, Peking University, China ◇
- 2021 - GFAP Seminar, Weizmann Institute of Science, Israel
 - Technion Probability Seminar, Technion – I.I.T., Israel
 - Seminario de Probabilidad Hispanohablante ◇
 - Purdue Probability Seminar, Purdue University, USA ◇
 - Probability Seminar Essen, Universität Duisburg-Essen, Germany ◇
 - Probability Seminar, Cornell University, USA ◇
 - Probability and Combinatorics Seminar, Uppsala universitet, Sweden ◇
 - Probability Seminar of Americas ◇
 - Joint Israeli Probability Seminar, Israel ◇
- 2020 - Probability and Related Fields Seminar, Indiana University, USA ◇
 - UBC Probability Seminar, University of British Columbia, Canada ◇
 - Probability and Related Fields Seminar, Indiana University, USA ◇
 - Seminario de Probabilidad y Estadística, CIMAT, Mexico ◇
 - Seminario de Probabilidad y Procesos Estocásticos, UNAM, Mexico ◇
 - TAMU Probability Seminar, Texas A&M University, USA
- 2019 - UBC Probability Seminar, University of British Columbia, Canada
 - Dynamics Seminar, University of Victoria, Canada

Colloquia

9 talks at colloquia.

Apr.	2024	Coloquio, Departamento de Matemáticas, Cinvestav Zacatenco, Mexico
Feb.	2024	Coloquio, Instituto de Matemáticas, Unidad Cuernavaca, UNAM, Mexico
Dic.	2023	Coloquio Interinstitucional de Matemáticas, UdG, UAGro y UNISON, Mexico ◇
May	2023	Coloquio, Centro de Ciencias Matemáticas, UNAM, Morelia, Mexico
Sep.	2022	Coloquio, Instituto de Matemáticas, UNAM, Mexico
May	2022	Coloquio Queretano, Instituto de Matemáticas, Unidad Juriquilla, UNAM, Mexico ◇
Feb.	2022	Seminario Virtual de Matemáticas, Universidad de Colima, Mexico ◇
Feb.	2021	Coloquio de Exalumnos de CIMAT/DEMAT, CIMAT, Mexico ◇
Nov.	2020	Coloquio Oaxaqueño de Matemáticas, IM-UNAM Oaxaca, Mexico ◇

Mini-courses

2 mini-courses.

July	2022	<i>"From random walks to metric spaces"</i> Graduate Student Concentration Week on Metric Geometry Texas A&M Workshop in Analysis and Probability, USA
July	2022	<i>"Teoremas de la forma en probabilidad"</i> Geometría Prohibida, Universidad Autónoma de San Luis Potosí, Mexico

Expository talks

23 expository talks.

Graduate and undergraduate level

Aug.	2025	Escuela de Verano en Matemáticas para Estudiantes Mujeres, Instituto de Matemáticas, UNAM, Mexico City, Mexico *
Aug.	2025	Cuarta Escuela de Teoría Geométrica de Grupos, Centro de Ciencias Matemáticas, UNAM, Morelia, Mexico *
Mar.	2025	Día Internacional de las Mujeres en Matemáticas. Instituto de Matemáticas, UNAM, Mexico City, Mexico *
Nov.	2024	EMALCA: Temas recientes en Teoría de las Probabilidades Universidad de la Habana, Cuba *
Aug.	2024	Escuela de Matemáticas de Occidente 2024, Universidad de Guadalajara, Guadalajara, Mexico. *
July	2024	Segunda Escuela Conjunta SLP-CDMX de Dinámica, Combinatoria y Probabilidad, UASLP, San Luis Potosí, Mexico
Sep.	2023	XVII Congreso de Ciencias Exactas, UAA, Aguascalientes, Mexico *
Aug.	2023	Primera Escuela Conjunta SLP-CDMX de Dinámica, Combinatoria y Probabilidad, Instituto de Matemáticas, UNAM, Mexico City, Mexico
Jun.	2023	EMALCA 2023, Centro de Ciencias Matemáticas, UNAM, Morelia, Mexico *
Oct.	2022	2do Fin de Semana de la Probabilidad en Cuernavaca, Instituto de Matemáticas, Unidad Cuernavaca, UNAM, Mexico *
Sep.	2022	Hablando de Matemáticas, Instituto de Matemáticas, UNAM, Mexico *
Aug.	2022	Coloquio de Orientación Matemática, Ciencias TV, UNAM, Mexico ◇
June	2022	Pizza Seminar, Technion – Israel Institute of Technology, Israel
April	2021	XIX Escuela de Probabilidad y Estadística, CIMAT, Mexico ◇ *
Dec.	2020	Fest 2020, Independently Organized Conference ◇
Sep.	2020	Seminario Junior de Estudiantes, Universidad de Guanajuato, Mexico ◇
Sep.	2020	Lunch & Learn, Trinity Western University, Canada ◇
Mar.	2019	Graduate Student Seminar, University of British Columbia, Canada

High school and middle school level

Mar.	2025	Día de π , Colegio Isabel la Católica (middle school), San Nicolás de los Garza, Nuevo León, Mexico $\diamond$ *
Nov.	2024	Fiesta de las Ciencias y las Humanidades, UNIVERSUM, Mexico City, Mexico
Mar.	2023	CiENPiés Matemático, Escuela Nacional Preparatoria de la UNAM Plantel 6 “Antonio Caso”, Mexico City, Mexico
Feb.	2023	Ciclo del Día Internacional de la Mujer y la Niña en la Ciencia. Olimpiada de Matemáticas de la Ciudad de México, Mexico $\diamond$ *

Panels

Mar.	2025	<i>Moderator.</i> “Mario Alberto Díaz Torres como amigo”, In Memoriam: Dr. Mario Alberto Díaz, Torres, IIMAS, UNAM, Mexico City, México *
Mar.	2025	<i>Participant.</i> “Caminos y Desafíos: Mujeres en la Ciencia Hoy”, Instituto de Ciencias de la Atmósfera y Cambio Climático, UNAM, Mexico City, Mexico *
Oct.	2023	<i>Moderator.</i> “Las Matemáticas Mexicanas en Norteamérica” 56 Congreso Nacional de la Sociedad Matemática Mexicana, San Luis Potosí, Mexico *

Miscellaneous talks

Jan.	2025	Open Problem Session, The Changing (of) Times. A Conference in Honor of María Emilia Caballero (one-hour joint activity with Laura Eslava) *
Aug.	2024	Lightning talk, Frontiers of Statistical Mechanics and Theoretical Computer Science, BIRS, Banff, Canada *
June	2021	Workshop discussion, SPDEs & friends (15 min. talk) $\diamond$ *

An asterisk (*) indicates an invited talk.

A diamond ($\diamond$) indicates a talk online.

The supplemental information shows a comprehensive list of [events attended](#).

TEACHING

Teaching experience

Posgrado en Ciencias Matemáticas, UNAM,
Mexico City, México

	<i>Instructor (Graduate level)</i>
2026-I	Probabilidad I (Probability I)
2025-II	Probabilidad en Estructuras Discretas (Probability in Discrete Structures)

Facultad de Ciencias (FC), UNAM,
Mexico City, Mexico

	<i>Instructor (Undergraduate level)</i>
2025-I	Probabilidad II (Probability II)
2024-II	Probabilidad en Estructuras Discretas (Probability in Discrete Structures)
	Probabilidad I (Probability I)
2024-I	Procesos Estocásticos I (Stochastic Processes)
2023-II	Probabilidad II (Probability II)
2023-I	Probabilidad I (Probability I)

University of British Columbia,
Vancouver, Canada

2019	<i>Workshop facilitator</i> Math 100: Differential Calculus with Applications to Physical Sciences and Engineering (Vantage College) Workshop sessions for international students, 2 hours per week.
2018	<i>Recitation instructor</i> Math 180: Differential Calculus with Physical Applications Workshop sessions with theory and exercises, 2 hours per week.
2017	<i>Course instructor</i> Math 100: Differential Calculus with Applications to Physical Sciences and Engineering Course with 60 students, 3 hours per week.
2014– 2020	<i>Teaching assistant</i> Marked assignments and conducted tutorial sessions. Undergraduate courses assisted: Mathematical Game Theory (Math 344), Real Variables I (Math 320), Probability with Physical Applications (Math 318), Introduction to Probability (Math 302), Introduction to Complex Variables (Math 300), Differential Equations (Math 256), Multivariable Calculus (Math 253), Mathematical Proof (Math 220), Differential Calculus with Applications to Life Sciences (Math 102). Tutor at the Math Learning Centre Drop-in tutorials offered to undergraduate students.

Universidad de Guanajuato / Centro de Investigación en Matemáticas (CIMAT),
Guanajuato, Mexico

2012– 2014	<i>Teaching assistant</i> Marker Conducted tutorial sessions for Modern Algebra I, Complex Variables and Integral and Differential Calculus I & II.
2013	<i>Workshop Instructor</i> X Calculus Problem Solving Workshop Led a group of undergraduates for a week-long problem-solving workshop on calculus.

STUDENTS

Direction of undergraduate honours thesis

Apr.	2025	Jorge Emiliano Alvarez Gil Leyva Licenciatura en Matemáticas Aplicadas, Facultad de Ciencias, UNAM Thesis title: “ <i>Simulación de la evolución de Schramm-Loewner</i> ” Graduated with honors
Mar.	2025	Juan Pablo Rodríguez Villagrán Licenciatura en Matemáticas, Facultad de Ciencias, UNAM Thesis title: “ <i>Percolación FK en gráficas de Cayley</i> ” Graduated with honors
Feb.	2024	Jorge Salvador Martínez Villafan. Co-direction with Dr. Laura Eslava Licenciatura en Matemáticas Aplicadas, Facultad de Ciencias, UNAM Thesis title: “ <i>Redes de investigación en probabilidad y estadística en Latinoamérica: desarrollo y análisis estadístico de una base de datos con perspectiva de género</i> ”

May 2024 Jeremai Reyes Garay
Licenciatura en Actuaría, Facultad de Ciencias, UNAM
Thesis title: *“Exponente de crecimiento en caminatas aleatorias con ciclos borrados”*

In progress

- Jorge David López Maldonado
Licenciatura en Matemáticas, Facultad de Ciencias, UNAM

Direction of master’s thesis in progress

- Ana Sarai Dávila Martínez. Co-direction with Dr. José Simental
Posgrado en Ciencias Matemáticas, UNAM

Academic mentorship of master’s students

1. Emmanuel Silva Amaya, 2025 - in progress
2. Jorge Emiliano Álvarez Gil Leyva, 2024 - in progress

Thesis reading committees

Graduate

- Oct. 2025 Marco Antonio López Ortiz, PhD thesis,
Doctorado en Ciencias Matemáticas, UNAM.
- Jan. 2023 José Hermenegildo Ramírez González, PhD thesis,
Probabilidad & Estadística PhD program, CIMAT

Undergraduate

- Apr. 2025 Daniel Fuentes del Río, undergraduate thesis,
Licenciatura en Matemáticas Aplicadas, FC-UNAM.
- Sep. 2024 Marco Fernando Guerrero Nava, undergraduate thesis,
Licenciatura en Matemáticas, FC-UNAM.
- Sep. 2024 Héctor Daniel Alonso Orozco, undergraduate thesis,
Licenciatura en Matemáticas, FC-UNAM.
- Sep. 2023 Hugo Guadalupe Reyna Castañeda, undergraduate thesis,
Licenciatura en Actuaría, FC-UNAM
- Aug. 2023 Alam Ponce Quiñones, undergraduate thesis,
Licenciatura en Matemáticas Aplicadas, FC-UNAM

PROFESSIONAL DEVELOPMENT COURSES

Teaching Accreditation

- 2018 Instructional Skills Workshop (24 hours workshop), UBC
- 2016 Math 599: Mathematics Teaching Techniques (33 hours course), UBC

Continuing Education Courses

- Aug. 2024 Taller de Introducción a la Divulgación de las Matemáticas. Instituto de Matemáticas, UNAM
- Jan. 2023 Online course: Conceptos básicos para la igualdad de género. UNAM, ofrecido a través de Coursera

EVENT ORGANIZATION

Seminar organization

5. **Co-organizer**, Aug. 2022–*present*,
[Seminario de Probabilidad y Procesos Estocásticos](#)
(Probability and Stochastic Processes Seminar), UNAM, Mexico
4. **Co-organizer**, Sep. 2024–Dec. 2024,
[Seminario de caminatas aleatorias y álgebras de Hecke](#)
(Random walks and Hecke algebras), IM-UNAM, México
3. **Co-organizer**, Sep. 2022–Dec. 2024,
Online Seminar for the Research Network of Latin American Women in Probability
and Statistics: [Aleatorias y Normales](#)
2. **Co-organizer**, July–Nov. 2022,
[Coloquio de ex-estudiantes CIMAT-DEMAT](#), Mexico
1. **Co-organizer**, Fall 2016 – Spring 2018,
UBC Probability Reading Group, University of British Columbia, Canada
Organized schedule and suggested topics.

Conference, workshop, and summer school organization

9. **Lead organizer**, 4–9 Oct. 2026,
[Discrete and Continuous Random Trees](#),
Casa Matemática Oaxaca (CMO), Oaxaca, Mexico
8. **Co-organizer**, 26–30 May 2025,
[Mixtures of Probability and Geometry](#),
Casa Matemática Oaxaca (CMO), Oaxaca, Mexico
7. **Co-organizer**, 24–27 Mar. 2025,
[Lecture Series: Interactions of Geometry and Probability](#),
Instituto de Matemáticas, UNAM and CINVESTAV, Mexico City, Mexico
6. **Co-organizer**, 5–19 July 2024,
[Segunda Escuela Conjunta SLP-CDMX de Dinámica, Combinatoria y Probabilidad](#),
Universidad Autónoma de San Luis Potosí, San Luis Potosí, Mexico
5. **Co-organizer**, 31 July–4 Aug. 2023,
[Primera Escuela Conjunta SLP-CDMX de Dinámica, Combinatoria y Probabilidad](#),
Instituto de Matemáticas, UNAM, Mexico City, Mexico
4. **Co-organizer**, July–Aug. 2021,
[Open Online Probability School \(OOPS\)](#),
Organizational work for 10 mini-courses.
3. **Co-organizer**, 14–18 Dec. 2020,
[Fest 2020](#),
Organizational work for 10 talks and 1 mini-course.
2. **Co-organizer**, May–Aug. 2020
[Open Online Probability School \(OOPS\)](#),
Event conception and organizational work. 13 mini-courses and 13 talks.
1. **Short talks organizer**, 5–30 June 2017,
[PIMS-CRM Summer School in Probability 2017](#),
Scheduled 29 short talks during the one-month summer school, assisted
in participant communication and social activity organization.

Organization of conference activities

3. **Courses coordinator**, 20–24 Oct. 2025,
[Scientific Committee](#), 58 Congreso Nacional de la Sociedad Matemática Mexicana
Benemérita Universidad Autónoma de Puebla, México

2. **Co-organizer**, Nov. 29–Dec. 2 2024,
[Discrete Probability Session](#), 2024 Canadian Mathematical Society Winter Meeting,
Kwantlen Polytechnic University, Richmond Campus, Greater Vancouver Area,
Canada
1. **Co-organizer**, Oct. 2022,
[Sesión de Probabilidad](#) (Probability session), 55 Congreso Nacional de la Sociedad
Matemática Mexicana, CUCEI, Universidad de Guadalajara, Hybrid event, Mexico

Organization of special events

2. **Co-organizer**, 24-26 Sep. 2025,
[In Memoriam Dr. Mario Alberto Díaz Torres](#),
IIMAS, UNAM, Mexico City, México
1. **Local coordinator**, Oct. 9 2024,
Special outreach event: [Mathemalchemy: an Artistic and Mathematical Adventure](#),
presented by Ingrid Daubechies, Instituto de Matemáticas, UNAM, Ciudad de México,
Mexico

OUTREACH

Mathematical Olympiads

- | | | |
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| June | 2024 | Tutor of the Mexico City team at the Third National Women's Competition
of the Mexican Mathematical Olympiad |
| Jan. | 2010 | Coach in the Guanajuato state team for the Mexican Mathematical |
| –Nov. | 2012 | Olympiad |

Bilingual Math Outreach

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| May | 2021 | Teaching assistant , Mathematics Sin Fronteras
Brown University
Supported the mini-course “An introduction to error correcting codes”. |
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ACADEMIC SERVICE

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| Evaluation
committees | 2025- Referee in the evaluation of PAPIIT projects, Call 2026
2023- Evaluator for CONAHCYT,
Becas al Extranjero para Estudios de Posgrado 2023
(scholarships for graduate studies abroad) |
| Referee for | Annals of Applied Probability
Boletín de la Sociedad Matemática Mexicana
Communications in Mathematical Physics
Electronic Communications in Probability
Electronic Journal of Probability
Journal of Applied Probability
Probability and Mathematical Physics
Probability Theory and Related Fields
Journal of Theoretical Probability
Random Structures and Algorithms
Stochastic Processes and their Applications |

LANGUAGES

- | | |
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| SPANISH: | Native |
| ENGLISH: | Fluent |

PROFESSIONAL AFFILIATIONS

Sociedad Matemática Mexicana	(SMM)
Sociedad Latinoamericana de Probabilidad y Estadística Matemática	(SLAPEM)
Bernoulli Society	(BS)

Supplemental information

EVENTS

Workshops

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| May | 2025 | Mixtures of Probability and Geometry
Casa Matemática Oaxaca, Oaxaca, Mexico |
| Mar | 2025 | CUWB-IV: Frontiers in Statistics and Probability
IIMAS, UNAM, Mexico City, Mexico |
| Feb. | 2025 | Montréal - Guanajuato Workshop on Probability and Machine Learning
CIMAT, Guanajuato, Mexico |
| Aug. | 2024 | Frontiers of Statistical Mechanics and Theoretical Computer Science
Banff International Research Station (BIRS), Banff, Canada |
| May | 2024 | Workshop: Random Walks, Scaling Limits and Criticality
Herrsching am Ammersee, Germany |
| May | 2024 | Statistical Mechanics Beyond 2D
IPAM at UCLA, USA |
| Jan. | 2024 | CUWB-II Probability-on-Sea
Playa del Carmen, Mexico |
| Sep. | 2023 | Potential Theory Workshop
CIMAT, Guanajuato, Mexico |
| Jan. | 2023 | XXI Bath-UNAM-CIMAT (BUC)
CIMAT, Guanajuato, México |
| Nov. | 2022 | Analytic and Probabilistic Combinatorics
Banff International Research Station (BIRS), Banff, Canada |
| July | 2022 | TAMU Workshop in Analysis and Probability
Texas A&M, College Station, USA |
| June | 2022 | Workshop: Challenges in Probability and Statistical Mechanics
Technion – IIT, Haifa, Israel |
| May | 2022 | Latin American and Caribbean Workshop on Mathematics and Gender
Hybrid event hosted at Casa Matemática Oaxaca in Mexico |
| June | 2021 | SPDEs & friends
3-day online workshop organized in Berlin, Germany |
| June | 2019 | Mathematical Research Communities: Stochastic Spatial Models
Rhode Island, USA |
| June | 2018 | Challenges in Probability and Mathematical Physics
Centre de Recherches Mathématiques (CRM), Montreal, Canada |

Conferences and Meetings

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| Oct. | 2025 | 58 Congreso Nacional de la Sociedad Matemática Mexicana
Benemérita Universidad Autónoma de Puebla, Puebla, Mexico |
| Sep. | 2025 | In Memoriam: Dr. Mario Alberto Díaz Torres
IIMAS, UNAM, Mexico City, Mexico |
| Aug. | 2025 | International Symposium on Stochastic Processes and Complex Systems
Tohoku Forum for Creativity, Tohoku University, Sendai, Japan |
| July | 2025 | Mathematical Congress of the Americas (MCA) 2025
Miami, USA |
| Jul. | 2025 | 44th Conference on Stochastic Processes and their Applications (SPA)
Wroclaw, Poland |
| Mar. | 2025 | Lecture Series: Interactions of Geometry and Probability
Instituto de Matemática, UNAM & Departamento de Matemáticas, Cinvestav,
Mexico City, Mexico |
| Jan. | 2025 | Connections Workshop: Probability and Statistics of Discrete Structures
SLMath, Berkeley, USA |

Jan.	2025	The Changing of Times: A Conference in Honor of María Emilia Caballero Universidad Autónoma de Yucatán, Mérida, Mexico
Nov.	2024	2024 CMS Winter Meeting Kwantlen Polytechnic University, Richmond, Canada
Oct.	2023	56 Congreso Nacional de la Sociedad Matemática Mexicana Universidad Autónoma de San Luis Potosí, San Luis Potosí, Mexico
Oct.	2023	Discrete Random Structures Bedlewo, Poland
July	2023	XVI CLAPEM USP, São Paulo, Brazil
June	2023	11th International Conference on Stochastic Analysis and its Applications ICSAA, Edinburgh, UK
Nov.	2022	55 Congreso Nacional de la Sociedad Matemática Mexicana Hybrid event hosted by Universidad de Guadalajara, Guadalajara, Mexico
Oct.	2022	2do Fin de Semana de la Probabilidad en Cuernavaca Instituto de Matemáticas, Unidad Cuernavaca, UNAM, Mexico
June	2022	42nd SPA Conference Hybrid event hosted in Wuhan, China
Dec.	2021	Matemáticos Mexicanos en el Mundo Hybrid event hosted at Casa Matemática Oaxaca in Mexico
July	2021	Mathematical Congress of the Americas Online conference organized in Argentina
May	2021	Students Probability Day VIII. In memory of Oded Schramm Weizmann Institute of Science, Rehovot, Israel
Jan.	2020	Joint Mathematics Meetings Denver, USA
Dec.	2019	Latin American Congress of Probability and Mathematical Statistics Merida, Mexico
June	2019	CMS Summer Meeting University of Regina, Regina, Canada
Oct.	2018	Retreat for Young Researchers in Stochastics Banff International Research Station (BIRS), Banff, Canada
July	2018	XIX International Congress on Mathematical Physics Centre Mont-Royal, Montreal, Canada
July	2018	Young Researchers Symposium McGill University, Montreal, Canada
July	2017	Mathematical Congress of the Americas Centre Mont-Royal and McGill University, Montreal, Canada
Aug.	2013	Mathematical Congress of the Americas Guanajuato, Mexico
Oct.	2012	XLV National Congress of the Mexican Mathematical Society Universidad Autónoma de Querétaro, Queretaro, Mexico

Summer Schools

Nov.	2024	EMALCA: Temas recientes en Teoría de las Probabilidades Universidad de La Habana, La Habana, Cuba
July	2024	Segunda Escuela Conjunta SLP-CDMX de Dinámica, Combinatoria y Probabilidad UASLP, San Luis Potosí, Mexico
Aug.	2023	Primera Escuela Conjunta SLP-CDMX de Dinámica, Combinatoria y Probabilidad Instituto de Matemáticas, UNAM, Mexico City, Mexico Universidad Autónoma de San Luis Potosí, Mexico

June	2023	EMALCA 2023 Centro de Ciencias Matemáticas, UNAM, Morelia, Mexico
Aug.	2022	X Escuela de Verano de Probabilidad y Procesos Estocásticos Instituto de Matemáticas, UNAM, Mexico
June	2022	Summer school: Geometría Prohibida
May	2021	CRM-PIMS Summer School in Probability
-June		Online summer school organized in Canada
July	2019	49th Saint-Flour Probability Summer School Saint-Flour, France
June	2019	11th Cornell Probability Summer School Cornell University, Ithaca, USA
Aug.	2017	Summer School in Graph Limits, Groups and Stochastic Processes MTA Alfréd Rényi Institute of Mathematics, Budapest, Hungary
June	2017	PIMS-CRM Summer School in Probability University of British Columbia, Vancouver, Canada
June	2015	CRM-PIMS Summer School in Probability
-July		McGill University, Montreal, Canada
Mar.	2014	XII Escuela de Probabilidad y Estadística Centro de Investigación en Matemáticas (CIMAT), Guanajuato, Mexico
June	2013	X Escuela de Verano en Matemáticas Instituto de Matemáticas, Unidad Cuernavaca, UNAM, Mexico
July	2011	IV Summer Program in Probability and Statistics Centro de Investigación en Matemáticas (CIMAT), Guanajuato, Mexico Research internship with Prof. José Alfredo López-Mimbela