

A. HAYDEÉ CONTRERAS PERUYERO

Postdoctoral fellowship at Center of Sciences Mathematics - UNAM |
Topological and Geometric Data Analysis | Bioinformatics | Geometric Group
Theory | Global Riemannian Geometry | Quantum Geometry and Topology



EDUCATION

2021
|
2016

Ph. D. in Science in Mathematics

Instituto de Matemáticas, UNAM

Mexico City, Mexico

- Dr. Pablo Suárez Serrato
- Thesis: Rigidez Cuasi-Isométrica en Variedades de Gráficas Superiores

2021
|
2020

Specialty in Applied Statistics

Instituto de Investigaciones en Matemáticas Aplicadas y en
Sistemas

Mexico City, Mexico

- Grade: 9.25/10.

2016
|
2014

Master of Science in Mathematics

Instituto de Matemáticas, UNAM

Mexico City, Mexico

- Dr. Pablo Suárez Serrato
- Thesis: Sobre la geometría y la topología de las variedades de gráficas
- Grade: 9.67/10.

2012
|
2007

Bachelor's Degree in Mathematics

Universidad Veracruzana

Veracruz, Mexico

- Dr. Jorge Luis López López
- Thesis: Triangulaciones de 3-variedades hiperbólicas que fibran sobre el círculo con fibra el toro con un agujero
- Grade: 9.4/10.



APPOINTMENTS

current
|
2024

Postdoctoral research DGAPA UNAM 2024

Centro de Ciencias Matemáticas, UNAM

Michoacan, Mexico

- Dr. Daniel Juan Pineda, Dra. Nelly Sélem Mojica, Dr. Jesús Hernández Hernández
- Aplicaciones de análisis topológico de datos e invariantes de cuasi-isometrías

Made with the R package
[pagedown](#).

The source code is available at
[HaydeePeruyero/CV](#) and is powered
by [nstrayer/cv](#).

Last updated on 2024-10-02.

2024

2024 Summer Collaborators IAS

Institute of Advances Studies

📍 Princeton, USA

- Catherine Searle, Megan Kerr, Regina Rotman, Erin Griffin, Isabel Beach
- Existence Criteria for Compact Homogeneous Einstein Metrics

2024

|
2023

Postdoctoral research DGAPA UNAM 2023

Centro de Ciencias Matemáticas, UNAM

📍 Michoacan, Mexico

- Dr. Daniel Juan Pineda, Dra. Nelly Sélem Mojica, Dr. Jesús Hernández Hernández
- TDA y Machine learning aplicado a Metagenómica e invariantes de Variedades de Gráficas

2023

|
2022

Postdoctoral research CONACyT Ciencia de Frontera 217392

Centro de Ciencias Matemáticas, UNAM

📍 Michoacan, Mexico

- Dr. Jesús Hernández Hernández
- Propiedades invariantes de Variedades de Gráficas Superiores

2022

|
2021

Head of the Department of Basic Sciences

Instituto Tecnológico de Martínez de la Torre

📍 Veracruz, Mexico



PUBLICATIONS

2024

Actinobacteria bioprospecting from ore-forming environments

- Aguilar, C., Alwali, A., Mair, M., Rodriguez-Orduña, L., Contreras-Peruyero, H., Modi, R., Sélem-Mojica, N., Licona-Cassani, C. & Parkinson, E. I. Actinomycetota bioprospecting from ore-forming environments. *Microbial Genomics*, 10(5), 001253. ISSN 2057-5858, <https://doi.org/10.1099/mgen.0.001253>

2024

Physicochemical Properties of Two Mexican Stingless Bee Honeys to Strengthen Their Biocultural Value

- Xolalpa-Aroche, A., Hernández-Mena, D. I., Moguel-Chin, W. I., Contreras-Peruyero, H., Rivero-Cruz, B. E., Ortiz-Vázquez, E., & Delgado-Suárez, E. J. (2024). Physicochemical Properties of Two Mexican Stingless Bee Honeys to Strengthen Their Biocultural Value. *Revista Brasileira de Farmacognosia*, 1-11. <https://doi.org/10.1007/s43450-024-00566-z>

2024

Multidisciplinary Workshop on Pangenomics and Topological Data Analysis

- H. Contreras Peruyero, S. Guerrero-Flores, C. Zirión-Martínez, P. M. Mejía-Ponce, Marisol Navarro-Miranda, J. Abel Lovaco-Flores, J.M. Ibarra-Rodríguez, A. Pashkov, C. Licona-Cassani and N. Sélem-Mojica. *Bioinformatics Advances*, 2024; vbae139 <https://doi.org/10.1093/bioadv/vbae139>

2022

Collapsing and group growth as obstructions to Einstein metrics on some smooth 4-manifolds

- Contreras Peruyero, H, Suárez-Serrato, P. Collapsing and group growth as obstructions to Einstein metrics on some smooth 4-manifolds. New York Journal of Mathematics 28 (2022), 659–671. <http://nyjm.albany.edu/j/2022/28-27.html>



PREPRINTS

2024

Asymptotic dimension and geometric decompositions in dimensions 3 and 4

- H. Conteras Peruyero and P. Suárez-Serrato. <https://arxiv.org/abs/2401.02560>. Submitted January 2024

2024

CAMDA 2023: finding patterns in urban microbiomes

- Haydeé Contreras-Peruyero , Imanol Nuñez-Morales , Mirna Vázquez-Rosas-Landa , Daniel Santana-Quinteros , Antón Pashkov , Mario E. Carranza-Barragán , Rafael Perez-Estrada , Shaday Guerrero-Flores , Eugenio Balanzario , Victor Muñiz-Sánchez , Miguel Nakamura-Savoy , Leticia L. Ramírez-Ramírez and Nelly Selem-Mojica. Submitted June 2024

2024

Topological data analysis captures Horizontal Gene Transfer in Antimicrobial Resistance gene families among clinically relevant bacteria

- Shaday Guerrero-Flores , Haydeé Contreras-Peruyero, Jose Ibarra , Jose Abel Lovaco-Flores , Francisco Nieto , Fernando Fontove-Herrera and Nelly Selem-Mojica. Submitted July 2024

2024

Fractal dimensions of complex networks: advocating for a topological approach

- Rayna Andreeva, Haydeé Contreras-Peruyero, Sanjukta Krishnagopal, Nina Otter, Maria Antonietta Pascali, Elizabeth Thompson. Submitted August 2024

2024

Linear bounds for the lengths of geodesics on manifolds with curvature bounded below

- Hannah Alpert, Isabel Beach, Haydeé Contreras Peruyero, Regina Rotman, Catherine Searle. In preparation

2024

Lengths of the Orthogonal Geodesic Chords on Riemannian Manifolds

- Isabel Beach, Haydeé Contreras Peruyero, Erin Griffin, Megan Kerr, Regina Rotman, Catherine Searle. In preparation

2022

On the quasi-isometric rigidity of chambers and walls in cusp-decomposable manifolds

- H. Contreras Peruyero. <https://arxiv.org/abs/2010.03736> Submitted 2022



TEACHING EXPERIENCE

2024

Advanced Statistics Course: Machine Learning and Deep Geometric Learning

Centro de Ciencias Matemáticas, UNAM

Michoacan, Mexico

- Graduate Course
- <https://github.com/CursosPosgradoCCM/ML-GDL>

2024

Scientific Computing: Scientific computing for data analysis

Centro de Ciencias Matemáticas, UNAM

Michoacan, Mexico

- Graduate Course
- https://haydeeperuyero.github.io/Computo_Cientifico/

2024

Web pages with Rmarkdown and Github

Centro de Ciencias Matematicas (CCM), UNAM

Morelia, Mexico

- Encuentro de R-Ladies Morelia y R-Ladies Querétaro
- <https://r-ladies-morelia.github.io/project/webpage/>

2024

Data analysis - PYTHON, BASH Y GIT

Centro de Ciencias Matematicas (CCM), UNAM

Morelia, Mexico

- Instructors: Haydeé Peruyero(Git), Shaday Guerrero (Bash), Miguel Magaña(Python)
- <https://miguel-mx.github.io/2024-01-24-ccm-unam-swc/>
- Software Carpentry

2024

Taller de Metagenómica

TecNM Campus Chiná

Virtual

- Instructors: Haydeé Peruyero(R and Metagenomics), Shaday Guerrero (Bash), Nelly Sélém(Metagenomics)
- <https://haydeeperuyero.github.io/2024-08-26-metagenomics-workshop-online/>

2023	Topology advanced course: Applications of Topological Data Analysis Centro de Ciencias Matemáticas, UNAM	Michoacan, Mexico
	• Graduate Course	
	• https://github.com/HaydeePeruyero/CursoA_Aplicaciones_TDA	
2023	Statistics seminar: Data Analysis with R Centro de Ciencias Matemáticas, UNAM	Michoacan, Mexico
	• Graduate Course	
	• https://haydeeperuyero.github.io/Seminario_Estadistica/	
2023	Advanced Algebra Course: Group Actions on Trees Centro de Ciencias Matemáticas, UNAM	Michoacan, Mexico
	• Graduate Course	
2023	Presentations with Markdown: Xaringan and Quarto revealjs Centro de Ciencias Matematicas (CCM), UNAM	Virtual event
	• R-ladies Morelia	
	• https://r-ladies-morelia.github.io/Xaringan_RLadies2023/	
2022	Teaching Assistant, Advanced Geometry Course: Hyperbolic Geometry Centro de Ciencias Matemáticas, UNAM	Michoacan, Mexico
	• Graduate Course	
2022	dplyr y Rmarkdown con Latex Centro de Ciencias Matematicas (CCM), UNAM	Virtual event
	• R-ladies Morelia	
2022	R for Reproducible Scientific Analysis Centro de Ciencias Matematicas (CCM), UNAM	Virtual event
	• Helper for R-ladies Morelia	
2021	Teaching Assistant, Analytic Geometry II Facultad de Ciencias, UNAM	Mexico City, Mexico
	• Professor José Crispín Ruiz Pantaleón	
	• https://github.com/appliedgeometry/Geometria-Analitica	
2020	Teaching Assistant, Analytic Geometry II Facultad de Ciencias, UNAM	Mexico City, Mexico
	• Professor José Crispín Ruiz Pantaleón	
	• https://github.com/appliedgeometry/Geometria-Analitica	
2020	Teaching Assistant, Differential and Integral Calculus II Facultad de Ciencias, UNAM	Mexico City, Mexico
	• Professor Oscar A. Garrido and Arturo Sánchez	

2020

Teaching Assistant, Analytic Geometry II

Facultad de Ciencias, UNAM

📍 Mexico City, Mexico

- Professor Pablo Suárez Serrato

<https://github.com/appliedgeometry/Geometria-Analitica>

2019

Teaching Assistant, Analytic Geometry I

Facultad de Ciencias, UNAM

📍 Mexico City, Mexico

- Professor Pablo Suárez Serrato

<https://github.com/appliedgeometry/Geometria-Analitica>

2014

Mathematics and Physics High School teacher

Instituto Motolinia

📍 Veracruz, Mexico

2012



TALKS AND POSTERS

2024

XIX Seminario de Matemáticas Aplicadas UATx

Talk

📍 Tlaxcala, Mexico

- Análisis Topológico de Datos aplicado a la transferencia horizontal de genes de resistencia antimicrobiana
- Co-authors: Shaday Guerrero-Flores, Nelly Sélem-Mojica. UATx
Apizaco, Tlaxcala
- September 23th

2024

Escuela de Matemáticas de América Latina y el Caribe Cuernavaca

2024

Talk

📍 Morelos, Mexico

- Analizando datos con topología y geometría

• Co-authors: Shaday Guerrero-Flores, Nelly Sélem-Mojica. IMATE
Cuernavaca

- June 18th

2024

Degustaciones Matemáticas

Talk

📍 Michoacan, Mexico

- TDA detecta la transferencia horizontal de genes

• Co-authors: Shaday Guerrero-Flores, Nelly Sélem-Mojica. UMSNH

- February

2024

2024 Joint Mathematics Meetings

Talk

📍 San Francisco, USA

- Asymptotic dimension and geometric decompositions in dimension 4

• Co-authors: Pablo Suárez-Serrato

2023

**XXIV Escuela de Otoño (EOBM) y el XVII Encuentro Nacional (ENBM),
of Bio-mathematics**

Minicourse

📍 Veracruz, Mexico

- Aplicaciones de análisis topológico de datos a Pangenómica
- October 9 - 14

2023

Taller Propedéutico de Ingreso al PCCM 2023

Talk

📍 Michoacan, Mexico

- Algunas aplicaciones relacionadas al análisis topológico de datos y aprendizaje geométrico profundo
- October 9th

2023

**Iberoamerican and Pan Pacific International Conference on Topology
and its Applications**

Talk

📍 Puebla, Mexico

- Invariants under quasi-isometries
- September 11 - 14

2023

**31st Conference on Intelligent Systems for Molecular Biology and 22th
European Conference On Computational Biology as part of the
Annual International Conference on Critical Assessment of Massive
Data Analysis**

Poster

📍 Lyon, France

- Topology, regression and metapangenome enrich conventional microbiome analyses
- July 24 - 27

2023

Workshop Técnicas Modernas en Geometría Riemanniana 2023

Talk

📍 Mexico City, Mexico

- Algunos invariantes de quasi-isometrías
- IMATE, UNAM
- July 24 - 27

2023

Décima Jornada de Geometría, Topología y Dinámica

Talk

📍 Michoacan, Mexico

- Algunos problemas relacionados al análisis topológico de datos y aprendizaje geométrico
- CCM, UNAM
- June 16th

2023

2023 Midwest Geometry Conference

Talk

📍 Kansas, USA

- Higher graph manifolds, properties and invariants
- March

2023

2023 Joint Mathematics Meetings

Talk

 Boston, USA

- Collapsing and group growth as an obstruction to Einstein metrics on some smooth 4-manifolds
- January

2022

Seminario FISMAT

Talk

 Michoacan, Mexico

- Algunos problemas relacionados al análisis topológico de datos y aprendizaje geométrico
- Facultad de Ciencias Físico Matemáticas de la Universidad Michoacana de San Nicolás de Hidalgo
- November 15th

2022

8th Mexican Workshop on Applied Geometry and Topology

Poster

 Virtual

- Topological data analysis applied to metagenomics and pangenomics data of Clavibacter
- Co-authors: Shaday Guerrero Flores (Centro de Ciencias Matemáticas-CIMAT), Nelly Selem Mojica (Centro de Ciencias Matemáticas), Noé Bárcenas Torres (Centro de Ciencias Matemáticas), Jesús Hernández Hernández (Centro de Ciencias matemáticas), Antonio Rieser (CIMAT)
- November 11th

2022

8th Mexican Workshop on Applied Geometry and Topology

Poster

 Virtual

- Topological and Geometric explorations of Autism fMRI connectomes
- Co-authors: Sebastian Pujalte Ojeda (Instituto de Fisiología Celular UNAM), Sophie Achard (Centre de recherche Inria Grenoble Rhône-Alpes), Pablo Suárez Serrato (Instituto de Matemáticas UNAM)
- November 10th

2022

ISCB-Latin America SoIBio BioNetMX Conference on Bioinformatics

2022

Poster

 Queretaro, Mexico

- Topological data analysis applied to metagenomics and pangenomics data of Clavibacter
- Co-authors: Shaday Guerrero Flores (Centro de Ciencias Matemáticas-CIMAT), Nelly Selem Mojica (Centro de Ciencias Matemáticas), Noé Bárcenas Torres (Centro de Ciencias Matemáticas), Jesús Hernández Hernández (Centro de Ciencias matemáticas), Antonio Rieser (CIMAT)
- November 3rd

2022

55 Congreso Nacional de la Sociedad Matemática Mexicana

Talk

 Guadalajara, Mexico

- Cuasi-isometrías e invariantes
- October 26th

2022	Coloquio del Posgrado Conjunto de Ciencias Matemáticas	 Michoacan, Mexico
	Talk	
	<ul style="list-style-type: none">• Variedades de Gráficas y Métricas de Einstein• September 23th	
2022	Seminario Informal de Geometría del CCM	 Michoacan, Mexico
	Talk	
	<ul style="list-style-type: none">• Cuasi-isometrías y “aplicaciones”• September 22th	
2022	XXII Escuela de Verano en Matemáticas	 Michoacan, Mexico
	Talk	
	<ul style="list-style-type: none">• Cuasi-isometrías y algunos invariantes• CCM, UNAM• August 3rd	
2022	I Escuela de Teoría Geométrica de Grupos	 Michoacan, Mexico
	Talk	
	<ul style="list-style-type: none">• ¿Qué significa crecimiento?• CCM, UNAM• July 28th	
2022	Seminario DIVAGEO	 Virtual
	Talk	
	<ul style="list-style-type: none">• Variedades de gráficas, propiedades y métricas de Einstein• Facultad de Ciencias, UNAM• May	
2022	Seminario a distancia de Teoría Geométrica de Grupos	 Virtual
	Talk	
	<ul style="list-style-type: none">• Variedades de Gráficas de dimensiones superiores, propiedades e invariantes• CCM, UNAM• May 5h	
2021	Tercer Encuentro de Mujeres Matemáticas Mexicanas	 Virtual
	Talk	
	<ul style="list-style-type: none">• Sobre Variedades de Gráficas• November	
2021	54 Congreso Nacional de la Sociedad Matemática Mexicana	 Virtual
	Talk	
	<ul style="list-style-type: none">• Sobre Variedades de Gráficas• October	

2021	Geometric Group Theory seminar in Cambridge	 Virtual
	Talk	
	<ul style="list-style-type: none">• About higher graph manifolds• May	
2021	Spring Eastern Sectional Meeting, Recent Developments in Differential Geometry, III,	 Virtual
	Talk	
	<ul style="list-style-type: none">• Quasi-isometric rigidity in cusp-decomposable manifolds• March	
2021	Sextas Jornadas de Geometría, Topología y Dinámica	 Virtual
	Talk	
	<ul style="list-style-type: none">• Sobre las variedades de gráficas de dimensiones superiores• March	
2020	Workshop and Winter School on Geometric and Topological Data Analysis	 Guanajuato, Mexico
	Poster	
	<ul style="list-style-type: none">• Topological gastronomy• CIMAT• January	
2019	Seminar ATD and related topics in CIMAT	 Guanajuato, Mexico
	Talk	
	<ul style="list-style-type: none">• Topological gastronomy• CIMAT• November	
2019	LII Congreso Nacional de la Sociedad Matemática Mexicana	 Nuevo Leon, Monterrey
	Talk	
	<ul style="list-style-type: none">• Rígidez Casi-Isométrica en Variedades de Gráficas Superiores• October	
2019	Workshop Geometría Diferencial y Rígidez de espacios singulares	 Michoacan, Mexico
	Talk	
	<ul style="list-style-type: none">• Rígidez Casi-Isométrica en Variedades de Gráficas Superiores• CCM, UNAM• June	



SCIENCE COMMUNICATION

current
|
2023

Club Mate

Workshop

Michoacan, Mexico

- Participation in the mate club aimed at elementary and secondary school students
- CCM UNAM

2024

Feria Infantil y Juvenil de Ciencias y Artes

Workshop

Michoacan, Mexico

- Estereogramas
- Instructors: Mariel Chaveste
- May 25th

2024

Feria de las Matemáticas

Workshop

Michoacan, Mexico

- Taller de Papiroflexia Modular
- Instructors: Mariel Chaveste
- March 16th

2024

Feria de las Matemáticas

Talk

Michoacan, Mexico

- ¿Qué hacemos cuentas? Son puros cuentos
- Co-authors: Cristina Villanueva, Yesenia Villicaña, Diana Piñango
- March 16th

2023

PI Day in the Instituto Tecnológico Superior de Martínez de la Torre

Talk

Veracruz, Mexico

- Algunas aplicaciones relacionadas al análisis topológico de datos y aprendizaje geométrico
- ITSMT, Mtz. de la Torre.
- March 14th

2023

11º Fiesta de las Ciencias y Humanidades

Workshop

Michoacan, Mexico

- Lengua de Señas Mexicana (LSM) y Matemáticas
- UNAM Campus Morelia
- October 19th

2023

11º Fiesta de las Ciencias y Humanidades

Workshop

Michoacan, Mexico

- Biomatemáticas
- UNAM Campus Morelia
- October 20th

2022

10° Fiesta de las Ciencias y Humanidades

Workshop

📍 Michoacan, Mexico

- Lengua de Señas Mexicana (LSM) y Matemáticas
- UNAM Campus Morelia
- October 27th - 28th



COURSES

2023

Taller Descarga y Análisis de Datos Digitales (Facebook)

📍 Virtual

- October 25th

2023

1st Advanced Scientific Programming in Python – Latin America

📍 Mexico City, Mexico

- Main instructors: Carlos Cernuda, Carlos Echeverría, Guillermo Aguilar, Jakob Jordan, Jenni Rinker, Lisa Schwetlick, Pietro Berkes, Rike-Benjamin Schuppner, Seetha Krishnan, Tiziano Zito, Zbigniew Jędrzejewski-Szmeik
- <https://latam.aspp.school/2023-mexico-city/start.html>
- June 26th - July 1st



RESEARCH EXPERIENCE

2023

Women in Geometry 3

BIRS in Banff

📍 Alberta, Canada

- Compact Homogeneous Einstein Manifolds
- Catherine Searle, Megan Kerr, Regina Rotman, Erin Griffin, Isabel Beach
- September 24 - 29

2023

Women in Computational Topology

Bernoulli Center EPFL

📍 Lausanne, Switzerland

- Studying self-similarity of complex networks with persistent magnitude
- Nina Otter, Maria Antonietta Pascali, Sanjukta Krishnagopal, Rayna Andreeva, Elizabeth Thompson
- July 17 - July 21

2022

2022 Summer Research in Mathematics program

BIRS in Banff

📍 Alberta, Canada

- Cohomogeneity Two Manifolds of Positive Sectional Curvature
- Catherine Searle, Megan Kerr, Regina Rotman, Hannah Alpert, Isabel Beach
- June 12 to June 25

2019

Scholarship Program for International Mobility for National CONACYT Fellows

Department of Mathematics, The Ohio State University  Ohio, USA

- Dr. Jean-François Lafont
- December 1-15

2019

Women in Geometry 2

Casa Matemática Oaxaca BIRS

 Oaxaca, Mexico

- Cohomogeneity Two Manifolds of Positive Sectional Curvature
- Catherine Searle, Megan Kerr, Regina Rotman, Hannah Alpert, Isabel Beach
- June 23 to June 28

2018

Scholarship Program for International Mobility for National CONACYT Fellows

Department of Mathematics, The Ohio State University  Ohio, USA

- Dr. Jean-François Lafont
- April 30 to June 15



AWARDS

2023

|
2022

CONACYT Ciencia Frontera Postdoctoral Research Fellowship

2023

1st place at the Annual International Conference on Critical Assessment of Massive Data Analysis

ISCB

 Lyon, France

- Anti-Microbial Resistance Prediction and Forensics in urban metagenomes
- July 2023

2022

Mentee in the Mentoring in Action - Women and Girls in STEM Online programme

British Council, Inova Consultancy, WITEC

 Mexico

- Humiko Yahaira Hernández Acosta
- April - June 2022

2022

2nd place at the ISCB-La SOLBIO BIONETMX WIKIPEDIA COMPETITION

ISCB

 Queretaro, Mexico

- Matrices de distancias
- October, 2022

2020

|
2016

CONACYT PhD Fellowship

2018	CONACYT Research Fellowship Ohio State University	📍 Ohio, USA
	• Scholarship Program for International Mobility for National CONACYT Fellows	
2016 2014	CONACYT Masters Fellowship	
2011	Academia Mexicana de Ciencias Summer Research Fellowship for undergraduate students Universidad Michoacana de San Nicolas Hidalgo	📍 Michoacan, Mexico
	• Dr. Jorge Luis López López • 3-variedades hiperbólicas	
2010	Academia Mexicana de Ciencias Summer Research Fellowship for undergraduate students Universidad Michoacana de San Nicolas Hidalgo	📍 Michoacan, Mexico
	• Dr. Jorge Luis López López • 3-variedades hiperbólicas	

👥 SYNERGISTIC ACTIVITIES

current 2022	Long-distance Seminar on Geometric Group Theory in Mexico	📍 Virtual
	• Co-organizer of Long-distance Seminar on Geometric Group Theory in Mexico	
current 2022	R Ladies Morelia	📍 Michoacán, Mexico and hybrid
	• Co-organizer of the sesions of R Ladies Morelia https://r-ladies-morelia.github.io/ https://www.meetup.com/es-ES/r-ladies-morelia/?eventOrigin=home_groups_you.organize • CCM UNAM	
2024	Primer Encuentro de Mujeres en Topología, Geometría y sus Aplicaciones	📍 Michoacán, Mexico
	• Co-organizer with Sandy Aguilar, Yesenia Villicaña Molina, Ferrán Valdez Webpage: https://www.matmor.unam.mx/encuentro-mujeres-topogeo/ • CCM UNAM • September 11th - 13th	

2023

Encuentro Nacional de R ladies México

 Virtual

- Co-organizer of Encuentro Nacional de R ladies México
- September 23

2023

II Escuela de Teoría Geométrica de Grupos

 Michoacan, Mexico

- Co-organizer of II Escuela de Teoría Geométrica de Grupos for undergraduate and graduate students
- CCM UNAM
- June 19 th - 23th

2023

Hackaton Reto Critical Assessment of Massive Data (CAMDA)

 Michoacan, Mexico

- Co-organizer of Hackaton Reto Critical Assessment of Massive Data (CAMDA) de geolocalización de datos de microbioma
- CCM UNAM
- June 3rd - 7th

2022

Hackaton TDA

 Michoacan, Mexico

- Co-organizer of the hackaton Análisis Topológico de Datos en el Hackaton Aplicaciones de Matemáticas en problemas de datos biológicos
- CCM UNAM
- November

2021

Seminario de Ciencias Básicas

 Veracruz, Mexico

- Organizer and Co-organizer of the Seminario de Ciencias Básicas in the Instituto Tecnológico Superior de Martínez de la Torre, Veracruz for undergraduate students