

# Antonio J. Torres

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## Personal Details

Full name Antonio de Jesús Torres Hernández  
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## Education

- 2019 - 2023 **PhD. in Mathematics**, Universidad Nacional Autónoma de México (UNAM), Juriquilla, México, Advisor Dr. Deborah Oliveros  
Thesis title: *Ramsey Type Theorems on Simplicial Complex Nerves*
- 2015-2018 **Master in Applied Mathematics**, Universidad Autónoma de San Luis Potosí (UASLP), México, Advisor Dr. Gelasio Salazar Anaya  
Thesis title: *Blowing Circular Sequences to Search for Drawings with few Crossings*
- 2008 - 2013 **Bachelor in Applied Mathematics**, Universidad Autónoma de Querétaro (UAQ), México, Advisor Dr. Deborah Oliveros  
Thesis title: *A  $(p, q)$ -problem for Linear and Cyclical Orders*

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## Research

- 2021 *A Model for Birdwatching and other Chronological Sampling Activities*. De Loera J.A., Jaramillo-Rodriguez E., Oliveros D., & **Torres, A.** *The American Mathematical Monthly*. ISSN: 19300972 (2023)
- 2021 *From word-representable graphs to altered Tverberg-type theorems*. Oliveros, D. & **Torres, A.**, arXiv preprint, arXiv:2111.10038.
- 2022 *On Tverberg partition graphs*. Oliveros, D., Roldan, E., Soberón P., **Torres, A.**, arXiv preprint, arXiv.2310.08563

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## Work and teaching experience

- Institution **Universidad Politécnica de Querétaro (UPQ)**  
Time 2018 - 2019  
Description Topic taught: Calculus, Mathematical Functions & Linear Algebra  
Role Professor
- Institution **Out Helping (Recruiting company)**  
Time 2017 - 2018  
Description Administration and management of the database  
Role Data Analyst
- Institution **Universidad Autónoma de Querétaro (UAQ)**  
Time 2014 - 2014

Description	Advisor of young students for university admission tests
Role	Professor
Institution	<b>Mexican Mathematics Olympiad, Querétaro Delegation</b>
Time	2022 - Present
Description	Topic taught: Combinatorics & Geometry courses for the Mexican Mathematical Olympics select team (high school level)
Role	Professor

## Visiting positions

Oct-Dic 2022 **Max Planck Institute, Leipzig, Germany**, with Dr Erika Roldan Roa.

## Conferences and workshops

- Jul 2024 **VI Encuentro Conjunto Real Sociedad Matemática Española-Sociedad Matemática Mexicana**, invited speaker, University of Valencia, Valencia, Spain
- Jun 2024 **Recent Progress on Optimal Point Distributions and Related Fields, Workshop**, participant, The Institute for Computational and Experimental Research in Mathematics, Providence RI, USA.
- Jul 2024 **9th Postdoctoral Research Symposium**, speaker, University of California Davis, Davis CA, USA
- Jun 2023 **Interplay Between Geometric Analysis and Discrete Geometry, Workshop**, participant, CMO Casa Matemática Oaxaca and Banff International Research Station, Oaxaca, México.
- Jun 2023 **New Trends from Classical Theorems in Geometry, Combinatorics, and Topology, Workshop**, speaker and participant, CMO Casa Matemática Oaxaca and Banff International Research Station, Oaxaca, México.
- Apr 2023 **2023 AMS Spring Central Sectional Meeting**, speaker and participant, Ohio, EUA.
- Jul 2022 **Latinx in the Mathematical Sciences Conference**, session chairman and poster presenter, Los Ángeles, USA.
- Jun 2022 **Combinatorial, Computational, and Applied Algebraic Geometry**, poster presenter, Washington, EUA.
- Jun 2022 **VII Encuentro Colombiano de Combinatoria (Summer school)**, participant and poster presenter, Bogotá, Colombia.
- Apr 2022 **XXXVI Coloquio Víctor Neumann-Lara de Teoría de las Gráficas, Combinatoria y sus Aplicaciones**, speaker and participant, online.
- Agu 2021 **Encuentro Nacional de Computación 2021, SMCC Taller de Geometría Discreta y Computacional**, speaker and participant, online.
- Jun 2021-today **Latinx Mathematicians Research Community (LMRC)**. Long program for early-career Latinx mathematicians which provides tiered mentoring research opportunities, participant, online meetings.
- Oct 2019 **Helly and Tverberg Type Theorems, workshop**, participant, CMO Casa Matemática Oaxaca and Banff International Research Station, Oaxaca, México.

- Oct 2019 **LII Congreso Nacional de la Sociedad Matemática Mexicana**, speaker and participant, Monterrey Nuevo León.
- Jul 20129 **IV Escuela de Verano de Combinatoria**, team leader assistant, Juriquilla, Querétaro.
- Mar 2018 **XXXIII Coloquio Víctor Neumann-Lara de Teoría de las Gráficas, Combinatoria y sus Aplicaciones**, speaker and participant, Universidad de la Habana, la Habana Cuba.
- Mar 2017 **XXXIII Coloquio Víctor Neumann-Lara de Teoría de las Gráficas, Combinatoria y sus Aplicaciones**, participant, San Luis Potosí.
- Oct 2016 **XLV Congreso Nacional de la Sociedad Matemática Mexicana**, participant, Aguascalientes.
- Nov 2016 **II Escuela de Invierno de Matemáticas**, participant, Oaxaca de Juárez.
- Jun 2016 **III Escuela de Verano de Combinatoria**, participant, Juriquilla, Querétaro.
- Oct 2015 **XLV Congreso Nacional de la Sociedad Matemática Mexicana**, participant, Hermosillo Sonora.
- Mar 2016 **XXVIII Coloquio Víctor Neumann-Lara de Teoría de las Gráficas Combinatoria y sus Aplicaciones**, participant, Guanajuato.
- Mar 2015 **XXVIII Coloquio Víctor Neumann-Lara de Teoría de las Gráficas Combinatoria y sus Aplicaciones**, participant, Oaxaca.
- Oct 2013 **XLV Congreso Nacional de la Sociedad Matemática Mexicana**, speaker and participant, Mérida Yucatán.
- Mar 2013 **XXVIII Coloquio Víctor Neumann-Lara de Teoría de las Gráficas Combinatoria y sus Aplicaciones**, participant, Morelia Michoacan.
- Oct 2012 **XLV Congreso Nacional de la Sociedad Matemática Mexicana**, speaker and participant, Querétaro, Qro.
- Mar 2012 **XXVII Coloquio Víctor Neumann-Lara de Teoría de las Gráficas Combinatoria y sus Aplicaciones**, participant, Tlaxcala.
- Oct 2011 **XLIV Congreso Nacional de la Sociedad Matemática Mexicana**, participant, San Luis Potosí.
- Mar 2011 **XXVI Coloquio Víctor Neumann-Lara de Teoría de las Gráficas Combinatoria y sus Aplicaciones**, participant, Pachuca Hidalgo.
- Oct 2009 **XLII Congreso Nacional de la Sociedad Matemática Mexicana**, participant, Zacatecas.

## Software knowledge

Programming C++, Python, R, Mathematica  
 Math editors LaTeX  
 O.S Microsoft Windows, Linux, Macintosh

## Languages

Spanish Native Speaker  
 English Level C1