José María Cantarero López

Curriculum Vitae

Education

2004–2009 **Ph.D. in Mathematics**, *University of British Columbia*, Vancouver, Canada.
Thesis: Equivariant K-theory, groupoids and proper actions.
Supervisor: Alejandro Adem.

2000–2004 **B.Sc. in Mathematics**, *Universidad de Málaga*, Spain.

Employment

2022– **Tenure track researcher A**, *Centro de Investigación en Matemáticas A.C. (CIMAT), Mérida Unit*, México.

2014–2022 **CONACYT Research Fellow**, *Mexican Council of Science and Technology*, Mexico.
Commissioned to CIMAT Mérida.

2013–2014 **Postdoctoral Researcher**, *CIMAT*, Guanajuato, Mexico.

2011–2012 **Szegö Assistant Professor**, *Stanford University*, Stanford, USA.

2010–2011 **Samelson Postdoctoral Fellow**, *Stanford University*, Stanford.

2009–2010 **Postdoctoral Fellow**, *Centre de Recerca Matemàtica*, Bellaterra, Spain.

Visiting positions

2013 **Københavns Universitet**, *Copenhagen, Denmark*, 2 months.

2012–2013 **CIMAT**, *Guanajuato, Mexico*, 7 months.

Publications

On the cohomological triviality of the center of the Frattini subgroup, *with J. Calles, J. O. Gómez and G. Ortega*, To appear in Bull. Korean Math. Soc.

Configuration spaces of commuting elements, *with A. R. Jiménez*, To appear in Kyoto J. Math.

Fusion-invariant representations for symmetric groups, *with J. Gaspar*, Bull. Iran. Math. Soc. 50 (2024), no. 29.

Uniqueness of factorization for fusion-invariant representations, *with G. Combariza*, Comm. Algebra 51 (2023), no. 12, 5187-5208.

A completion theorem for fusion systems, *with N. Bárcenas*, Israel J. Math. 236, 501-531 (2020).

Vector bundles over classifying spaces of p-local finite groups and Benson-Carlson duality, *with N. Castellana and L. Morales*, J. Lond. Math. Soc. (2) 101 (2020), no. 1, 1-22.

Centro de Investigación en Matemáticas, A.C., Unidad Mérida
Parque Científico y Tecnológico de Yucatán, Carretera Sierra Papacal-Chuburná Puerto Km 5.5
C.P. 97302, Sierra Papacal, Mérida, Yucatán, Mexico
(+52)999 688 5327 ext. 1313 • *cantarero@cimat.mx*
www.cimat.mx/~cantarero

Twisted equivariant K-theory of compact Lie group actions with maximal rank isotropy, *with A. Adem and J. M. Gómez*, J. Math. Phys. 59, 113502 (2018).

Unitary embeddings of finite loop spaces, *with N. Castellana*, Forum Math. 29 (2017), no. 2, 287-311.

Nilpotent p-local finite groups, *with J. Scherer and A. Viruel*, Ark. Mat. 52 (2014), no. 2, 203-225.

Equivariant K-theory, groupoids and proper actions, J. K-theory 9 (2012), no. 3, 475-501.

Twisted K-theory for actions of Lie groupoids and its completion theorem, Math. Z. 268 (2011), no. 1-2, 559-583.

Submitted

A local view of finite groups, *in Spanish*, ArXiv 2411.06005.

Citations

Available at http://www.cimat.mx/~cantarero/Citations.pdf**.**

Research grants

2024– **Principal Investigator**, *CONAHCYT CF-2023-I-2649: Hidden symmetries in algebra and topology.*

2015–2019 **Principal Investigator**, *SEP-CONACYT 242186: Homotopical aspects of compact Lie groups.*

Organization of conferences

2025 **GAP XX: Higher structures in geometry and representation theory**, *with N. Bárcenas, H.-Y. Liao, E. Pérez, M. Stiénon and P. Xu*, Mérida.

2024 **I Annual Meeting of CIMAT Mérida's Topology Group: Contacts and Connections**, *with G. Longatto*, CIMAT Mérida/Universidad Autónoma de Yucatán (UADY).

CIMAT-Mérida Applied Topology School, *with J. C. Gómez Larrañaga, J. L. León, K. Lindsey and B. Villarreal*, CIMAT Mérida.

Summer school in algebraic topology 2024, *with J. Bergner, M. Hill, J. L. León and B. Villarreal*, CIMAT Mérida.

Meeting of mathematics graduate programs UADY-CIMAT-UJAT 2024, *with G. Blé, C. Brito, F. J. Hernández, R. Legarda and J. M. Navarro*, UADY.

Meeting CIMAT Mérida - Universidad Marista, *with M. Rodríguez*, Universidad Marista de Mérida.

Spring school at CIMAT Mérida, *with A. Sánchez-Valenzuela*, CIMAT Mérida.

2023 **Meeting of mathematics graduate programs UADY-CIMAT**, *with F. J. Hernández, R. Legarda, A. Martín and J. M. Navarro*, CIMAT Mérida.

Centro de Investigación en Matemáticas, A.C., Unidad Mérida
Parque Científico y Tecnológico de Yucatán, Carretera Sierra Papacal-Chuburná Puerto Km 5.5
C.P. 97302, Sierra Papacal, Mérida, Yucatán, Mexico
(+52)999 688 5327 ext. 1313 • *cantarero@cimat.mx*
www.cimat.mx/~cantarero

2022 **Special session Groups and Topology of the II Joint meeting RSME-UMA**, *with A. Díaz and K. Piterman*, Ronda, Spain.

New trends in Algebra, Geometry and Homotopy Theory, a conference in honor of Alejandro Adem's 60th birthday, *with O. Antolín, J. M. Gómez, D. Juan, E. Lupercio, B. Uribe and B. Williams*, Mérida.

CIMAT-UADY Topology meeting, *with J. P. Navarrete*, UADY.

Astronomy is always interesting, *with J. E. Pérez*, CIMAT Mérida.

2020 **Algebraic and Geometric Topology session of the Virtual National Congress of the Mexican Mathematical Society**, *with R. Jiménez.*

2019 **Summer school 2019 at CIMAT Merida**, CIMAT Mérida.

Session Algebra and Topology at the Jornadas de Topología, *with O. Antolín and I. Sánchez*, Universidad Juárez del Estado de Durango.

2018 **CIMPA school Noncommutative Geometry and Index Theory**, *with N. Bárcenas and P. Carrillo*, CIMAT Mérida.

Thematic session Algebraic Topology at the Meeting of mathematical societies of Colombia and Mexico, *with M. Velásquez*, Universidad del Norte, Barranquilla, Colombia.

2017 **Winter School on Algebraic Topology 2017**, *with M. Hill*, CIMAT Mérida.

Cohomology of Groups special session of the Mathematical Congress of the Americas 2017, *with E. M. Friedlander and T. B. Williams*, McGill University, Montreal, Canada.

2016 **Algebraic Topology session of the XLIX National Congress of the Mexican Mathematical Society**, *with R. Jiménez*, Universidad Autónoma de Aguascalientes.

Meeting on Topological K-theory and Noncommutative Geometry, *with N. Bárcenas*, Mérida.

2015 **Algebraic Topology session of the XLVIII National Congress of the Mexican Mathematical Society**, *with R. Jiménez*, Universidad de Sonora, Hermosillo, Mexico.

2014 **MSRI Summer School in Algebraic Topology**, *with M. Hill*, CIMAT.

Editorial service

2019–2022 **Editor**, *Abstraction & Application.*

2018– **Reviewer**, *Zentralblatt MATH*, 18 reviews.

2015– **Reviewer**, *MathSciNet Mathematical Reviews*, 35 reviews.

Referee, *18 evaluations.*

Supervision of postdoctoral researchers

2022- **Jose Luis León Medina**, *CIMAT Mérida.*

2022-2025 **Bernardo Villarreal Herrera**, *CIMAT Mérida.*

2023 **Mario Fuentes Rumí**, *CIMAT Mérida.*

2017 **Bárbara Mayela Gutiérrez Mejía**, *CIMAT Mérida.*

Centro de Investigación en Matemáticas, A.C., Unidad Mérida
Parque Científico y Tecnológico de Yucatán, Carretera Sierra Papacal-Chuburná Puerto Km 5.5
C.P. 97302, Sierra Papacal, Mérida, Yucatán, Mexico
(+52)999 688 5327 ext. 1313 • *cantarero@cimat.mx*
www.cimat.mx/~cantarero

Supervision of theses

Ph.D.

2023 **Víctor Antonio Torres Castillo**, *co-supervised with J. Scherer*, CIMAT.
Thesis: Biset functors and the homotopy type of the classifying spectra of saturated fusion systems.

Juan Omar Gómez Rodríguez, CIMAT.
Thesis: On the Picard group of the stable module category for infinite groups.

2022 **Alffer Gustavo Hernández Posada**, *co-supervised with F. Ferrari*, Universidade Federal de São Carlos, Brazil.
Thesis: Twisted Borel K-theory and isomorphisms between differential models of K-theory.

M.Sc.

2022 **Gustavo Navarrete Novelo**, *co-supervised with J. M. Navarro*, UADY.
Thesis: T-duality in equivariant K-theory.

2019 **Ángel Rolando Jiménez Cruz**, *co-supervised with J. M. Navarro*, UADY.
Thesis: Invariants of configuration spaces of commuting elements.

2017 **Arfaxard Sánchez Estrella**, *co-supervised with J. A. Díaz*, UADY.
Thesis: Transfer maps for finite transporter categories.

2016 **Margarita Angélica Martínez López**, *co-supervised with H. Kanarek*, CIMAT.
Thesis: Homological invariants of EI categories.

B.Sc.

2024 **Víctor Adrián Meza Campa**, B.Sc., Universidad Autónoma de Sinaloa.
Thesis: The group ring and Kaplansky's conjectures.

Paul Quispe Cutipa, *co-supervised with R. M. Mamani*, B.Sc., Universidad Nacional de San Agustín de Arequipa, Perú.
Thesis: Smith theory and an introduction to Casacuberta-Dicks' conjecture.

2020 **Jorge Eduardo Gaspar Lara**, UNAM.
Thesis: K-theory and fusion-invariant representations.
Winner of the 2021 Sotero Prieto Award.

2016 **Antonio González Fernández**, *co-supervised with J. E. Pérez*, UADY.
Thesis: Fusion systems for groups, actions and representations.

2013 **Joseph Victor**, *co-supervised with G. Carlsson*, Stanford University.
Thesis: Stable homotopy groups of spheres and the Hopf invariant one problem.
Winner of an Undergraduate Research Award 2013 of the department of mathematics of Stanford University.

Current students

Raúl David Gorocica Polanco, B.Sc., UADY.
Thesis: Directed structures for Lie groups.

José Nicolás Reyes Gómez, *in co-supervision with J. Aguilar*, B.Sc., Instituto Politécnico Nacional.

Josué Eduardo Maldonado Galindo, *in co-supervision with A. Castillo*, M.Sc., Universidad de Guadalajara.

Centro de Investigación en Matemáticas, A.C., Unidad Mérida
Parque Científico y Tecnológico de Yucatán, Carretera Sierra Papacal-Chuburná Puerto Km 5.5
C.P. 97302, Sierra Papacal, Mérida, Yucatán, Mexico
(+52)999 688 5327 ext. 1313 • *cantarero@cimat.mx*
www.cimat.mx/~cantarero

Ángel Rolando Jiménez Cruz, Ph.D., CIMAT.

Víctor Adrián Meza Campa, M.Sc., CIMAT.

José María Castilla Cochegrus, B.Sc., UADY.

Gabriel Longatto Clemente, *in co-supervision with F. Ferrari*, Ph.D., Universidade Federal de São Carlos.

Teaching

2025 **Equivariant homotopy**, *M.Sc. program/Ph.D. program*, CIMAT/Universidad de Guadalajara/CINVESTAV.

2024 **Methods of homotopy theory**, *Ph.D. program/M.Sc. program*, CIMAT/CINVESTAV.

Homological algebra, *B.Sc. program*, UADY.

2023 **MAT. 310: Selected topics in fibre bundles and characteristic classes**, *Ph.D. program*, Universidade Federal de São Carlos.

Selected topics in topology II: Homology and cohomology, *M.Sc. program*, CIMAT/Universidad Autónoma de Chiapas.

2022 **Modern algebra**, *M.Sc. program*, CIMAT.

Equivariant homotopy, *M.Sc. program*, UADY.

2021 **Fiber bundles and classifying spaces**, *M.Sc. program*, UADY.

Selected topics in topology III: Localization in algebra and topology, *Ph.D. program*, CIMAT.

Homology and cohomology, *M.Sc. program*, UADY.

2020 **Selected topics in algebra I: Representation theory of finite groups**, *Ph.D. program*, CIMAT, with J. E. Pérez.

Selected topics in topology II: Group cohomology and classifying spaces, *Ph.D. program*, CIMAT.

Topology II, *B.Sc. program*, UADY.

2019 **Selected topics in topology I: Algebraic topology**, *Ph.D. program*, CIMAT.

Calculus and vector analysis, *B.Sc. program*, UADY, with J. Lugo.

Cohomology of groups and classifying spaces, *M.Sc. program*, UADY.

2018 **Selected topics in algebraic topology**, *M.Sc. program*, UADY.

Homotopy theory, *M.Sc. program*, UADY.

2017 **Geometry of discrete groups**, *B.Sc. program*, UADY.

Fiber bundles and K-theory, *M.Sc. program*, UADY.

2016 **Topics in homotopy theory**, *M.Sc. program*, UADY.

Topology II, *B.Sc. program*, UADY.

Methods of homotopy theory, *M.Sc. program*, UADY.

Homotopy theory, *B.Sc. program*, UADY.

2015 **Topology II**, *B.Sc. program*, UADY.

Centro de Investigación en Matemáticas, A.C., Unidad Mérida
Parque Científico y Tecnológico de Yucatán, Carretera Sierra Papacal-Chuburná Puerto Km 5.5
C.P. 97302, Sierra Papacal, Mérida, Yucatán, Mexico
(+52)999 688 5327 ext. 1313 • *cantarero@cimat.mx*
www.cimat.mx/~cantarero

Homotopy theory, *B.Sc. program*, UADY.

2014 **Topology II**, *B.Sc. program*, UADY.

Topology I, *M.Sc. program*, CIMAT.

2012 **MATH 215b: Algebraic topology**, *Ph.D. program*, Stanford University.

MATH 283: Cohomology of finite groups, *Ph.D. program*, Stanford University.

2011 **MATH 41: Differential and integral calculus of functions of one variable**, *Instructor for 2 sections and coordinator*, B.Sc. program, Stanford University.

MATH 19: Differential calculus of functions of one variable, *B.Sc. program*, Stanford University.

MATH 215b: Algebraic topology, *Ph.D. program*, Stanford University.

2010 **MATH 41: Differential and integral calculus of functions of one variable**, *Instructor for 2 sections*, B.Sc. program, Stanford University.

2008 **MATH 104: Differential calculus with applications to commerce and social sciences**, *B.Sc. program*, University of British Columbia.

2004–2009 **Calculus, Linear Algebra and Applied Linear Algebra**, *Teaching Assistant*, B.Sc. program, University of British Columbia.

Organization of seminars

2015– **Algebraic Topology Seminar**, *CIMAT Mérida.*

2012–2014 **Algebraic Topology Seminar**, *CIMAT.*

2010–2012 **Topology Progress Seminar**, *Stanford University.*

2006–2007 **Learning Seminar in Topology**, *University of British Columbia.*

Awards, fellowships and honors

2020– **Tutor for the M.Sc. and Ph.D. programs in algebra and topology**, *UNAM.*

2014– **Member of CONACYT Registry of Accredited Evaluators (RCEA).**

2014– **Member of the National System of Researchers in Mexico (SNII)**, *level I.*

2014–2022 **CONACYT Fellowship**, *awarded by the Mexican Council of Science and Technology.*

Service positions and participation in committees

2023– **Liaison for the graduate programs in pure mathematics**, *CIMAT Mérida.*

2023 **Admission committee for M.Sc. in pure mathematics program**, *CIMAT.*

2023 **Acting director for CIMAT Mérida**, *January 13th-26th.*

2020–2024 **Ph.D. tutoring committee**, *UNAM*, Porfirio Leandro León Álvarez.

Committee for the algebra qualifying exam, *CIMAT*, January 2014, August 2022, January 2023.

Committee for the topology qualifying exam, *CIMAT*, July 2014.

Thesis jury, *2 at B.Sc. level*, 5 at M.Sc. level, 7 at Ph.D. level.
Thesis jury member and evaluator, not including my own students.

Centro de Investigación en Matemáticas, A.C., Unidad Mérida
Parque Científico y Tecnológico de Yucatán, Carretera Sierra Papacal-Chuburná Puerto Km 5.5
C.P. 97302, Sierra Papacal, Mérida, Yucatán, Mexico
(+52)999 688 5327 ext. 1313 • *cantarero@cimat.mx*
www.cimat.mx/~cantarero

Professional memberships

2023– **Member**, *Registry of researchers, technologists and science liaisons of the state of Yucatán.*

2019– **Member**, *Mexican Mathematical Society.*

2017– **Affiliate member**, *American Mathematical Society.*

Supervision for internships

2024–2025 **José Eduardo Estrella Cetz**, *The Atiyah-Singer index theorem*, UADY.

2024 **José María Castilla Cochegrus**, *An introduction to stable homotopy theory*, UADY.

Supervision for programs of introduction to research

2023 **Delfín program (summer research program for undergraduates)**, *2 students.*

2019 **Delfín program**, *2 students.*

2018 **Delfín program**, *1 student.*

XXVIII Scientific Research Summer, *Mexican Academy of Sciences*, 2 students.

2014 **XXIV Scientific Research Summer**, *Mexican Academy of Sciences*, 1 student.

Conference lectures

2024 **Elements of finite order in p-compact groups**, *I Annual Meeting of CIMAT Mérida's Topology Group: Contacts and Connections.*

Academic development, *CIMAT-Mérida Applied Topology School.*

Academic development, *Summer school in algebraic topology 2024*, CIMAT Mérida.

Minicourse Introduction to the methods of algebraic topology, *Summer school 2024 at CIMAT Mérida*, with J.L. León and B. Villarreal.

Minicourse Deformation Methods in algebra and topology, *Geometry and topology school*, CIMAT.

2023 **A vision of symmetry through classifying spaces**, *Third International Congress on Topology and Affine Topics*, Universidad Nacional Mayor de San Marcos, Lima, Perú.

Geometric twistings for Borel equivariant K-theory, *Iberoamerican and Pan Pacific International Conference on Topology and its Applications*, Benemérita Universidad Autónoma de Puebla, Mexico.

How to study symmetry with algebraic topology, *Summer school 2023 at CIMAT Mérida.*

Geometric twistings for Borel equivariant K-theory, *Equivariant bordism theory and applications*, Casa Matemática Oaxaca.

Computations in twisted K-theory, *II Colloquium of academic bodies and research groups*, REMIM, .

Centro de Investigación en Matemáticas, A.C., Unidad Mérida
Parque Científico y Tecnológico de Yucatán, Carretera Sierra Papacal-Chuburná Puerto Km 5.5
C.P. 97302, Sierra Papacal, Mérida, Yucatán, Mexico
(+52)999 688 5327 ext. 1313 • *cantarero@cimat.mx*
www.cimat.mx/~cantarero

Group actions via homotopy theory, *First Physics and Mathematics Seminar*, Escuela Superior de Matemáticas de la Universidad Autónoma de Guerrero.

2022 **Geometric twistings and twisted Borel equivariant K-theory**, *CIMAT-UADY Topology Meeting*, UADY.

Minicourse A local vision of finite groups, *Summer school 2022 at CIMAT Mérida.*

About Schmid's conjecture, *Algebra Conference 2022*, UADY.

2021 **Minicourse Classifying spaces**, *Emalca Virtual Arequipa-Peru 2021*, Universidad Nacional de San Agustín de Arequipa.

Uniqueness of decomposition of fusion-invariant representations, *54 National Congress of the Mexican Mathematical Society*, Benemérita Universidad Autónoma de Puebla.

Decompositions of fusion-invariant representations, *Summer school 2021 at CIMAT.*

2020 **Minicourse A local vision of finite groups**, *Summer school 2020 at CIMAT Mérida.*

2019 **Twisted K-theory of p-local finite groups**, *Samuel Gitler conferences 2019*, Samuel Gitler collaboration center, Mexico City.

2018 **A completion theorem for p-local finite groups**, *LI National Congress of the Mexican Mathematical Society*, Universidad Juárez Autónoma de Tabasco, Villahermosa, Mexico.

Minicourse Limits and colimits, *Algebra Conference 2018*, UADY.

Homotopical group theory, *Second meeting of young researchers in mathematics (IM-UNAM)*, Universidad Nacional Autónoma de México, Mexico City.

2017 **Benson-Carlson duality for p-local finite groups**, *Mathematical Congress of the Americas 2017*, McGill University.

2016 **Representations of fusion systems**, *XLIX National Congress of the Mexican Mathematical Society*, Universidad Autónoma de Aguascalientes.

Representations of fusion systems, *Samuel Gitler's 2016 Conferences*, CINVESTAV, Mexico City.

Unitary embeddings of finite loop spaces, *Meeting on topology, geometry and representation theory*, Universidad Nacional de Colombia, Medellín, Colombia.

Representations of fusion systems, *V Latin American Congress of Mathematicians*, Universidad del Norte.

Representations of fusion systems, *Algebra Conference 2016*, UADY.

2015 **Twisted equivariant K-theory and maximal rank isotropy**, *XLVIII National Congress of the Mexican Mathematical Society*, Universidad de Sonora.

2014 **From compact Lie groups to p-compact groups**, *Young Researchers' Meeting*, CIMAT.

From compact Lie groups to p-compact groups, *XLVII National Congress of the Mexican Mathematical Society*, Universidad Juárez del Estado de Durango.

Centro de Investigación en Matemáticas, A.C., Unidad Mérida
Parque Científico y Tecnológico de Yucatán, Carretera Sierra Papacal-Chuburná Puerto Km 5.5
C.P. 97302, Sierra Papacal, Mérida, Yucatán, Mexico
(+52)999 688 5327 ext. 1313 • *cantarero@cimat.mx*
www.cimat.mx/~cantarero

Minicourse Introduction to Algebraic Topology, *Workshop on Algebra, Algebraic Geometry, Algebraic Topology and Applications*, Universidad de Ciego de Ávila, Cuba.

Minicourse Homotopical Group Theory, *MSRI Summer School in Algebraic Topology*, CIMAT.

2013 **p-compact groups and p-local H-spaces**, *Differential Geometry at CIMAT.*

The orbit space of a p-local compact group, *Mathematical Congress of the Americas*, CIMAT.

2012 **The orbit space of p-compact groups**, *XLV National Congress of the Mexican Mathematical Society*, Universidad Autónoma de Querétaro, Mexico.

2010 **Completion theorems for groupoid actions**, *Topologists from Málaga around the world*, Universidad de Málaga.

2009 **Twisted K-theory and groupoids**, *Cascade topology seminar*, University of British Columbia.

2008 **Equivariant K-theory, groupoids and proper actions**, *Fall Western Section Meeting of the AMS*, University of British Columbia.

Equivariant K-theory, groupoids and proper actions, *Second Canada-France congress*, Université du Québec, Montreal, Canada.

Seminar lectures

2024 **In how many ways can you comb a coconut?**, *Wednesday's Institutional Seminar*, Universidad Autónoma de Sinaloa.

2023 **Configuration spaces of commuting elements**, *Bilkent topology seminar*, Bilkent University, Turkey.

A vision of symmetry through classifying spaces, *Colloquium of the Mexican Mathematical Society.*

Configuration spaces of commuting elements, *Algebraic and geometric topology seminar*, UNAM/Universidad Católica de Chile.

2022 **Simmetries, equivariant homotopy and Borel equivariant K-theory**, *CIMAT-DEMAT Colloquium.*

Configuration spaces of commuting elements, *Topology and applications Seminar*, CINVESTAV.

Configuration spaces of commuting elements, *Purdue Topology Seminar*, Purdue University, USA.

2021 **The twisted K-theory of p-completed classifying spaces**, *Topology Seminar*, Instituto de Matemáticas, UNAM Oaxaca, Mexico.

The twisted K-theory of p-completed classifying spaces, *EPFL Topology Seminar*, École Polytechnique Fédérale de Lausanne, Switzerland.

2020 **An introduction to the local study of topological spaces**, *Virtual algebraic topology seminar*, CIMAT Mérida.

2019 **In how many ways can you comb a coconut?**, *FMAT-CIMAT Colloquium*, UADY.

Centro de Investigación en Matemáticas, A.C., Unidad Mérida
Parque Científico y Tecnológico de Yucatán, Carretera Sierra Papacal-Chuburná Puerto Km 5.5
C.P. 97302, Sierra Papacal, Mérida, Yucatán, Mexico
(+52)999 688 5327 ext. 1313 • *cantarero@cimat.mx*
www.cimat.mx/~cantarero

Linearly independent tangent fields over spheres, Universidad Nacional de Colombia, Bogotá, Colombia.

The twisted K-theory of p-completed classifying spaces, Pontificia Universidad Javeriana, Bogotá, Colombia.

2018 **Invariants of spaces of homomorphisms to Lie groups**, *Geometry and topology seminar*, Universidad de Málaga.

Invariants of spaces of homomorphisms to Lie groups, *Geometry and topology seminar*, IM-UNAM, Oaxaca, Mexico.

Invariants of spaces of homomorphisms to Lie groups, *GAP Seminar*, Pennsylvania State University, State College, USA.

2017 **Homotopical group theory**, *Colloquium of pure mathematics*, Universidad Autónoma de Zacatecas, Mexico.

Benson-Carlson duality for p-local finite groups, *Seminar of the faculty of sciences*, Universidad de Colima, Mexico.

Group actions via homotopy theory, *Colloquium of physics and mathematics*, Universidad de Colima.

2016 **Representations of fusion systems**, *FMAT-CIMAT Colloquium*, UADY.

2014 **From compact Lie groups to p-compact groups**, *FMAT-CIMAT Colloquium*, UADY.

Compact Lie groups, p-compact groups and p-local H-spaces, *Topology Seminar*, University of British Columbia.

2013 **Minicourse on p-local groups**, *Topology Seminar*, Centro de Ciencias Matemáticas UNAM, Morelia, Mexico.

Unitary embeddings of finite loop spaces, *Topology Seminar*, Johns Hopkins University, Baltimore, USA.

Unitary embeddings of finite loop spaces, *Topology Seminar*, Københavns Universitet.

2012 **The p-local study of groups and topological spaces**, *Colloquium*, CIMAT.

The orbit space of a p-compact group, *Algebraic Topology Seminar*, Universitat Autònoma de Barcelona, Bellaterra, Spain.

Nilpotent p-local finite groups, *Topology Seminar*, Københavns Universitet.

2011 **Nilpotent p-local finite groups**, *Algebraic Topology Seminar*, Universitat Autònoma de Barcelona.

Combinatorial models for p-completions of compact Lie groups, *Topology Seminar*, University of British Columbia.

Combinatorial models for p-completions of compact Lie groups, *Topology Seminar*, Stanford University.

2009 **Groupoid actions and equivariant K-theory**, *Algebraic Topology Seminar*, Universitat Autònoma de Barcelona.

The equivariant nature of groupoids, *Algebraic Topology Seminar*, Universität Münster, Germany.

Centro de Investigación en Matemáticas, A.C., Unidad Mérida
Parque Científico y Tecnológico de Yucatán, Carretera Sierra Papacal-Chuburná Puerto Km 5.5
C.P. 97302, Sierra Papacal, Mérida, Yucatán, Mexico
(+52)999 688 5327 ext. 1313 • *cantarero@cimat.mx*
www.cimat.mx/~cantarero

The equivariant nature of groupoids, *Algebraic Topology Seminar*, Universität Düsseldorf, Germany.

2008 **Equivariant K-theory, groupoids and proper actions**, *Algebra/Algebraic Topology Seminar*, University of British Columbia.

The completion theorem for groupoids, *Algebra/Algebraic Topology Seminar*, University of British Columbia.

2007 **Equivariant K-theory for actions of loop groups**, *Algebra/Algebraic Topology Seminar*, University of British Columbia.

Science popularization

2023 **Workshop "Möbius bands"**, *Primary school Lázaro Cárdenas del Río.*

2022 **Lecture "The Euler characteristic"**, *CIMAT Mérida*, Visit from the State Secondary School no. 45 "Carmen Cervera Andrade".

2019 **Lecture "Deformations of geometric figures"**, *CIMAT Mérida*, Visit of high school students from the Universidad del Valle de Grijalba.

2018 **Interview "Topological applications to data science and robotics"**, *Television program Inngenio Viral*, Secretaría de investigación, innovación y educación superior, https://youtu.be/N-Wa45kt7J4

2013 **Lecture "Deformations of geometric figures"**, *Escuela de Nivel Medio Superior de la Universidad de Guanajuato.*

Academic profiles and identifiers

ORCID	https://orcid.org/0000-0001-6144-2003
MATHSCINET	https://mathscinet.ams.org/mathscinet/MRAuthorID/940227
zbMATH	https://zbmath.org/authors/?q=jose+cantarero
ARXIV	https://arxiv.org/a/cantarerolopez_j_1.html
Google Scholar	https://scholar.google.com.mx/citations?user=kgn7-hQAAAAJ&hl=en
MGP	https://www.genealogy.math.ndsu.nodak.edu/id.php?id=134653
Scopus	https://www.scopus.com/authid/detail.uri?authorId=35602725100
Web of Science	https://www.webofscience.com/wos/author/record/1298656

Centro de Investigación en Matemáticas, A.C., Unidad Mérida
Parque Científico y Tecnológico de Yucatán, Carretera Sierra Papacal-Chuburná Puerto Km 5.5
C.P. 97302, Sierra Papacal, Mérida, Yucatán, Mexico
(+52)999 688 5327 ext. 1313 • *cantarero@cimat.mx*
www.cimat.mx/~cantarero