Minerva Cordero, PhD
Curriculum Vitae

The University of Texas at Arlington   *Telephone: 817-272-9691*
Arlington, Texas 76019   *E-mail:* cordero@uta.edu

Academic Experience

9/2013-present	Professor, Department of Mathematics The University of Texas at Arlington
9/2001-8/2013	Associate Professor, Department of Mathematics The University of Texas at Arlington
8/1990-8/2001	Associate and Assistant Professor Department of Mathematics and Statistics, Texas Tech University

Administrative Experience

01/2023-present	Interim Vice Provost for Faculty Success, The University of Texas at Arlington
01/2022-10/2023	Expert (Program Director), National Science Foundation, Historically Black Colleges and Universities Undergraduate Program
01/2020-present	Senior Associate Dean of Science for Research and Graduate Studies, University of Texas at Arlington
9/2018-9/2019	Program Director, National Science Foundation ADVANCE and IUSE-**Hispanic Serving Institutions** (HSI)
8/2016-present	Program Director, Louis Stokes Alliance for Minority Participation Bridge to Doctorate Program, UT Arlington
1/2013-12/2019	Associate Dean for Academic Affairs, College of Science, UT Arlington
4/2009-6/2015	Director, NSF GK-12 MAVS Program, UT Arlington
1/2014-12/2014	Director, Texas Pre-freshman Engineering Program (TexPREP) Program to increase diversity in STEM, UT Arlington
9/2005-8/2008	Associate Dean, Honors College, UT Arlington

Education

Ph.D.	Mathematics	The University of Iowa	1989
M.A.	Mathematics	The University of California at Berkeley	1983
B.S.	Mathematics	The University of Puerto Rico	1981

Honors and Awards

- Fellow of the Association for Women in Mathematics, named in January 2023
  The Executive Committee of the Association for Women in Mathematics (AWM) has established the AWM Fellows Program to recognize members who have demonstrated a sustained commitment to supporting and advancing women in the mathematical sciences, consistent with the AWM mission.

- Exito Latino Award, The Success Club "El Club del Exito" of Arlington, December 2022
  The award is given to exemplary Latino leaders to recognize Latinos who are a source of pride and inspiration to the community.

- *Presidential Award for Excellence in Science, Mathematics, and Engineering Mentoring* (PAESMEM), February 2022.
  The Presidential Awards for Excellence in Science, Mathematics, and Engineering Mentoring program was created to identify and recognize individuals that have contributed outstanding efforts in mentoring and have enhanced the participation of individuals who might not otherwise have considered or had access to opportunities in STEM disciplines and professions.

- *American Association for the Advancement of Science AAAS IF/THEN Ambassador*, September 2019.
  IF/THEN®, a national initiative of Lyda Hill Philanthropies, seeks to further women in science, technology, engineering, and math by empowering current innovators and inspiring the next generation of pioneers.

- *Ford 2016 Legendary Women (Mujeres Legendarias de Ford 2016),* October 2016
  A national program, *Mujeres Legendarias* (legendary women) honors Hispanic women in America who are making a difference in their workplace, home, environment, and community.

- Great Minds in STEM 2016 HENAAC Award Education Distinction, October 2016
  The HENAAC Awards, one of the Great Minds in STEM (GMiS) legacy programs, honor our Country's top Hispanic STEM professionals and showcase role models who can light a path for young people to pursue careers in STEM and motivate professionals to connect with the Hispanic community continuously.

- *Honors College Distinguished Faculty Award*, The University of Texas at Arlington, April 2012

- *Certificate of Meritorious Service,* Mathematical Association of America, January 2012

- Featured Biography, *SACNAS Biography Project*, May 2011, http://www.uta.edu/math/gk12/news/index.html

- *University of Texas Regents' Outstanding Teaching Award,* University of Texas System, August 2009
  Received the designation of *Distinguished Teaching Professor*

- *Professor of the Year Award,* Mathematical Association of America Student Chapter at UTA, April 2009

- *Faculty Development Leave*, The University of Texas at Arlington, Fall 2007

- *Award for Distinguished College or University Teaching*, Texas Section of the MAA, April 2007.

- *Research Excellence Travel Award,* The University of Texas at Arlington, Spring 2007, Spring 2006.

- *Academy of Distinguished Teachers,* inducted April 2005, The University of Texas at Arlington

- *Featured Mathematician*, Scott Foresman-Addison Wesley, *Grade 1 Mathematics Textbook*, Cultural Connections, page 204 B, 2005.

- *Outstanding Student Organization Advisor Award*, The University of Texas at Arlington, April 2005.

- *Faculty Development Leave,* Texas Tech University, Spring 2002

- Honoree, *Outstanding Hispanic Women of the South Plains*, South Plains Hispanic Chamber of Commerce, September 2000.

- *Featured Biography*, Mathematical Association of America Strengthening Underrepresented Minority Mathematics Achievement (SUMMA) Program, http://www.maa.org/summa/archive/corder_m.htm
- *President's Excellence in Teaching Award*, Texas Tech University, 1999.
- *Who's Who Among America's Teachers, 1998, 2000, 2004.*

- *Texas Tech University Teaching Academy for Distinguished Teachers,* inducted 1997, Texas Tech University, Member 1997-2001.
- *Professor of the Year*, Mathematical Association of America, Texas Tech University, 1995.
- Nominee from Texas Tech University for the *Presidential Faculty Fellow Award*, National Science Foundation, 1995.
- *New Faculty Award*, Texas Tech University Ex-Students Association, 1994.
- *Recognition Award for Emerging Scholars,* American Association of University Women, Nominee from Texas Tech University, Third place nationally, 1993.

Selected Grants Received

Co-PI: National Science Foundation UT System LSAMP UT Arlington Bridge to the Doctorate Fellowship Program, Benjamin Flores (PI from UTEP), Aug 2014-Aug 2018, $987,000.
Total $1,205,000 (includes $218,000 UT Arlington contribution)

PI: National Science Foundation, *New, GK-12: Mathematically Aligned Vertical Strands Connecting Mathematics Research, Pedagogy and Outreach for GK-12 Fellows and Teachers (MAVS Project),* with T. Aktosun (former co-PI), J. Alvarez, T. Jorgensen, H. Kojouharov, J. Su, & J. Zhu (former co-PI). Apr 2009-Sep 2014, $2,854,024

Co-PI: Mathematical Association of America, *National Research Experience for Undergraduates Program,* with T. Aktosun, Summers 2006- 2011, $143,250

Co-PI: Mathematical Association of America, *TENSOR-SUMMA grant*, with T. Aktosun and T. Jorgensen, 2008-2009, $16,000

Co-PI: Texas Higher Education Coordinating Board, Dwight D. Eisenhower Professional Development Grants Program*, Mathematical Problem Solving: A Treisman-style Approach*, with J. Alvarez, May 2002—September 2003, $79,000

Co-PI: Texas Workforce Commission, Science Careers Consortium, with J. Epperson, 1999-2001, $83,000

Co-PI: National Security Agency, *Adaptive Nonparametric Procedures and Combinatorics*, with S. Sun-Mitchell, 1999-2001, $75,000

PI: National Science Foundation, *A study on finite semifield planes*, 1991-1994, $67,500

PI: National Science Foundation-Research Experience for Undergraduates Program, *A study on finite semifield planes*, 1993-1994, $6,250.

PI: American Mathematical Society-National Science Foundation Travel Grant, *International Congress of Mathematicians*, Zurich, Switzerland, August 1994, $2,500

PI: Texas Tech University, College of Arts and Sciences Institute for University Research, Research Enhancement Fund, *Semifield planes of rank 3,* 1990-1992, $6,500

PROFESSIONAL ACTIVITIES TO INCREASE DIVERSITY IN MATHEMATICS EDUCATION AND TEACHING

Articles, Books, and Book Chapters

Harris, P., et al., Editors, *Testimonios: Stories of Latinx and Hispanic Mathematicians,* A co-publication of the American Mathematical Society and the Mathematical Association of America, September 2021, 59-70

Banda, S., **Cordero, M**., Lubbe, A., *Learning Statistics by Connecting to the Community***,** Newsletter of the Association for Women in Mathematics (AWM), Education Column, Volume 51, No. 2, March-April 2021, 27-29.

Alvarez, J., **Cordero, M.,** *Considerations for Increasing Participation of Minoritized Ethnic and Racial Groups in Mathematics,* Notices of the American Mathematical Society, Volume 68, No. 2, February 2021, 235-239.

Cordero, M., *Bringing real-life examples into mathematics: a help or a deterrent,* Newsletter of the Association for Women in Mathematics (AWM), Education Column, Volume 50, No. 2, March-April 2020, 27-28.

Cordero, M, and Mast, M., *Valuing and Supporting Work in Mathematics Education: An Administrative Perspective,* Book chapter (Chapter 3) in Springer's AWM Series "Mathematics Education: A Spectrum of Work in Mathematical Sciences Departments," 2016.

Cordero, M., Epperson, J., Jorgensen, *Linking mathematics research to secondary school classrooms: the GK-12 MAVS program,* Proceedings EDULEARN14: 6th International Conference on Education and New Learning Technologies, Barcelona, Spain, 2014, pp. 4715-4723.

Cordero, M., Jorgensen, T., Shipman, B., *Engaging the Honor Student in Lower-level Mathematics,* Book Chapter (Chapter 9) in The Other Culture: Science and Mathematics Education in Honors. Ed. Ellen B. Buckner and Keith Garbutt. Lincoln: National Collegiate Honors Council, 2012.

Cordero, M., Jorgensen, T., Shipman, B., *Designing Contracts and Honors Thesis Projects in Mathematics,* Book Chapter (Chapter 13) in The Other Culture: Science and Mathematics Education in Honors. Ed. Ellen B. Buckner and Keith Garbutt. Lincoln: National Collegiate Honors Council, 2012.

Maletsky, E. M. et al., (includes **Cordero-Epperson, M**.), (2010*). National and Texas Editions of Math (Grades 1 – 6, Student and Teachers' Editions).* Houghton Mifflin Harcourt Publishing, Company: Orlando, FL.

Maletsky, E. M., et al. (includes **Cordero-Epperson, M**.) (2009). *HSP Math: National and Texas Edition (Grades 1 – 6, Student and Teachers' Editions)*. Harcourt School Publishers: Orlando, FL.

Invited Talks and Presentations

- *Advocating For Diversity in STEM,* Susan G. Komen's Big Data For Breast Cancer initiative, Breast Cancer Hackathon Challenge, Women in Computational Biology, UT Southwestern, Dallas, TX, March 2023
- Panelist at the American Mathematical Society Committee on Equity, Diversity, and Inclusion Panel: Making Changes on Improving Equity, Diversity, and Inclusion, Boston, MA, January 2023
- *Advocating for diversity from a personal and professional perspective,* UT System LSAMP Annual Conference, El Paso, Texas, August 2022
- *Discovering mathematics in everything we do,* Smithsonian Museum, *Futures That Inspire* Hall, March 2022
- *Mathematics Contributions to Technological Advances and Social Media*, Houston Math Circle, February 2022
  NMSI STEM Pathways Conversations, National Math and Science Initiative, October 2021
- Panelist at the GlobalMindEd STEM Equity Courageous Conversations; Building the Talent Pipeline, September 2021
- *Women in STEM,* Arlington Rotary Club, June 2021
- *Mathematics and Social Media: Facebook, Instagram, y …Matemáticas?* CienciaPR, April 2021
- Panelist at The Limit Does Not Exist, National Museum of Mathematics, August 2020
- *Instagram, Facebook, Snapchat, …, and Mathematics? Virtual Meeting of Outstanding Mathematicians* hosted by the Panamanian Foundation for the Promotion of Mathematics (FUNDAPROMAT), April 2020
- Panelist at the MAA Session for Chairs, Topic: *Equity, Diversity, Inclusion in the Mathematics Classroom, Joint Mathematics Meeting,* Denver, CO, January 2020
- HSI Funding Opportunities at the NSF, Texas Hispanic Serving Institutions Consortium (TxHSIC) Annual Conference, May 2019
- Panelist at the MAA-SIAM-AMS Hrabowski-Gates-Tapia-McBay Panel, *Actions to increase the participation of underrepresented minority groups in mathematics, Joint Mathematics Meetings, January 2019*

- *Panel Moderator for the Association for Women in Mathematics Committee on Education Panel: Supporting, Evaluating and Rewarding Work in Mathematics Education in Mathematical Sciences Departments*, Joint Mathematics Meetings, San Diego, CA, January 2018
- *Girls in STEM,* Parent Workshop, presented at the *STEMulate Your Mind* Conference, Sponsored by UT Arlington College of Engineering and the *Women in Transportation Seminar (WTS)*, March 2017
- *The Power of Mathematics and Mathematical Thinking, Edward W. Powers STEM Community Lecture,* Youngstown State University, March 2017.
- *Mathematics, a Path to an Exciting Career*, Youngstown State University *Women in STEM* Career Workshop, March 2017.
- *College Opportunities in STEM, Parent Workshop,* A talk presented at the *Full STEAM Ahead* Conference—*Girls in STEM,* Sponsored by the Northeast Tarrant Country Branch of the AAUW and HEB-Independent School District, October 2016.
- *Sí, se puede: A Woman's Guide to Earning Tenure,* National Conference of the Society for Advancing Chicanos and Native Americans in Science, SACNAS, Long Beach, CA, October 2016.
- *The Power of Mathematics,* 2016 UT Arlington TexPREP Career Awareness Speaker Series, June 2016
- Panelist at the "Technology in STEM" panel at the Ribbon Cutting Ceremony for the Community Technology Center at the Center for Mexican American Studies (CMAS) at the University of Texas at Arlington, February 2016
- *Advocating for Diversity from a Personal and Professional Perspective*, Invited Presentation at the Harvard Annual Symposium, Pipelines into Biostatistics Program, July 2015.
- Panelist at the *Infinite Possibilities Conference Panel* on Graduate Studies, Corvallis, OR, March 2015
- *On being a new tenure track faculty: a talk for Project NExT Fellows*, Texas Undergraduate Math Conference, St. Mary's University, San Antonio, Texas, October 2013.
- *Mathematics and Careers*, *Texas Undergraduate Math Conference*, St. Mary's University, San Antonio, Texas, October 2013.
- *Mathematics + Mathematics Education Research = A Partnership for a Better Education*, with Cynthia Anhalt, Ricardo Cortez, Alfinio Flores, and Hortensia Soto, SACNAS National Conference, San Antonio, Texas, October 2013.
- *More Mathematics = Brighter Future,* 2013 Dallas PREP Career Awareness Speaker Series, July 2013
- *Mathematics Every Day,* Fort Worth Independent School District In-service Teachers' STEM Academy, October 2012.
- *Careers in Mathematics*, *Infinite Possibilities Conference*, University of Maryland, Baltimore County, March 2012.
- *The NSF GK-12 MAVS Project, National Science Foundation Annual GK-12 Conference,* with J. Alvarez, A. Brown, K. Helixon, T. Jorgensen, K. Randell, P. Veerapen, March 2011
- *Facilitating the Integration of Research-Level Mathematics into The Classroom, National Science Foundation Annual GK-12 Conference,* with J. Alvarez, A. Brown, K. Helixon, T. Jorgensen, K. Randell, P. Veerapen, March 2011
- *Conveying the Beauty of Mathematics Through Our Teaching,* Texas Section of the Mathematical Association of America, Tarleton State University Stephenville, Texas, April 2008.
- *Teaching Mathematics in Honors,* National Collegiate Honors Council Annual Meeting, November 2005, contributed presentation
- *Combinatorics, Graph Theory and Computing: Connections and Interplay*, *Student Forum Presenter*, Mathematical Association of America, Texas Section Annual Conference Texas A&M Corpus Christi, April 2004.
- *Teaching Strategies: Workshop for new graduate teaching assistants*, College of Arts and Sciences, Texas Tech University, August 1999, August 2000.

- Moderator, Session *on How do we address declining enrollments in science and mathematics? Is remediation the answer? Shaping the Future in Science and Mathematics Education Conference*, The University of Texas at Arlington, May 2000.
- Engineering Minority Recruitment, Plenary Speaker, Texas Tech University, 1997.
- Texas Pre-freshman Engineering Program, Opening Program Plenary Speaker, May 1996 and May 1997.
- Texas Pre-freshman Engineering Program, Closing Program Plenary Speaker, May 1997 and August 1999.

Contributed Talks

- *HSI Jumpstart Grantsmanship Workshop for HSI Institutions*, Sponsored by the New Mexico NSF HSI STEM Resource Hub, May 2020

- *Linking mathematics research to secondary school classrooms: the GK-12 MAVS program*, EDULEARN14, 6th International Conference on Education and New Learning Technologies, Barcelona, Spain, Joint presentation with J. Epperson and T. Jorgensen July 2014.

- *Linking Mathematics Research to School Classroom*, A Talk presented at the International Consortium for Research in Science and Mathematics Education, Granada, Nicaragua, March 2013

- *Applying the Treisman Model to Inservice Mathematics Teacher Education, National Council of Teachers of Mathematics Annual Meeting*, San Antonio, Texas, April 2003, Refereed Presentation.

Conference Participation

- *45th Annual Meeting of the International Group for the Psychology of Mathematics Education,* Alicante, Spain, July 2022
- *42nd Annual Meeting of the International Group for the Psychology of Mathematics Education,* Umea, Sweden, July 2018
- *13th International Congress on Mathematical Education,* Hamburg, Germany, July 2016
- Inaugural Conference of the Freshman Research Initiative Program at UT Austin, May 2013
- *Conference on Undergraduate Research* sponsored by Council on Undergraduate Research, Washington, DC, February 2013
- Conference for the Advancement of Mathematics Teaching, 2010, 2011, 2012, 2013
- Society for the Advancement of Chicanos and Native Americans in Science *Leadership Institute*, Washington, DC, 2011, selected to participate
- Mathfest, yearly since 2007
- *Association for Women in Mathematics Leadership Workshop*, University of Maryland, College Park, March 12-14, 2004.
- *Quality Education for Minorities Workshop,* National Science Foundation Mathematics and Science Partnerships Program, Las Vegas, Nevada, November 2002.
- *Teacher Quality Grants Workshop,* Texas Higher Education Coordinating Board, The University of Texas at Austin, August 2002.
- "In-depth Secondary Mathematics", Charles A. Dana Center, and The University of Texas at Austin. Certified and Trained Leader for IDSM: a workshop under the Texas Teachers Empowered for Achievement in Mathematics and Science Program, May 2002.
- Texas Section Meeting of the *Mathematical Association of America,* Mesquite, Texas, April 2002. Participated together with twelve undergraduate Mathematics majors who were members of the UTA student chapter of MAA.
- *Science and Technology Workforce Forum*, University of Texas at Arlington, December 2000.
- The Fifth Annual Texas Statewide Systemic Initiative Conference: The Mathematics and Science Preparation of Preservice Secondary Teachers, Charles A. Dana Center/Texas SSI, Austin, Texas, October 1999.

- Fourth Annual Conference on Research in Undergraduate Mathematics Education (RUME), Chicago, Illinois, September 1999.
- Wakonse South Conference on College Teaching, Austin, Texas, April 1999.

Professional Service

National and State Committees

Member of the Mathematical Association of America Committee on the Undergraduate Program in Mathematics, February 2019-present

Chair of the Search Committee for the editor of the Math Magazine, MAA, 2017-2019

Inaugural member of the Association for Women in Mathematics (AWM)-MAA Sectional Liaison Committee, 2016-present

Member of Harvard's *Pipelines into Biostatistics* Advisory Board, 2015-present

Chair of the *Mathematical Sciences Research Institute (MSRI) Human Resources Advisory Committee*, Berkeley, California, 2013 – 2015

Mathematical Sciences Research Institute Board of Trustees, ex-officio member, April 2013 – March 2015

Member of the Nominating Committee of the Texas Section of the Mathematical Association of America, April 2012-April 2014

Member of the search committee for the Director of the *Mathematical Association of America Tensor SUMMA Program,* 2011-2012

Member of the *MSRI Human Resources Advisory Committee*, 2011 - 2015

Chair, MAA Committee for Minority Participation in Mathematics, January 2011-December 2012

Member of the Speaker Selection Committee for *Mathfest 2012*, 2010

Immediate Past Chair, Texas Section of the *Mathematical Association of America*, April 2011-April 2012

Chair, Texas Section of the *Mathematical Association of America*, April 2010-April 2011

Chair-elect, Texas Section of the *Mathematical Association of America*, April 2009-April 2010

Editor for journal issue on *Note di Matematica* for conference proceedings of "Normfest-a conference in Finite Geometries in honor of Norman Johnson", San Antonio, Texas, March 2009

Co-chair, MAA Committee for Minority Participation in Mathematics, January 2009-January 2011

Member of the MAA Committee Curriculum Renewal Across the First Two Years, 2008-2011

Governor-At-Large for Minority Interests, Mathematical Association of America, January 2008- January 2011

Level III Director, Texas Section of the *Mathematical Association of America*, April 2006-April 2009

Member of the Strategic Planning Committee-Working Group on Membership, *Mathematical Association of America,* 2006-2008

Member of the Mathematics and Science Committee, *National Collegiate Honors Council*, 2005-2008

Member of the Executive Committee of the Texas Section of the *MAA,* 2003-2005

Member of the Mentoring Committee for the *Association for Research in Undergraduate Mathematics Education,* 2000-2001

Other professional service

Judge for the Exxon Mobil Texas Science and Engineering Fair, Junior High Division in Mathematics, Austin, Texas, April 2001.

Conference Organization

Normfest-A conference in Honor of Professor Norman Johnson, University of Texas at San Antonio, co-organized with Dr. Greg Wene from UT San Antonio, March 2009. Proceedings published at http://212.189.136.205/index.php/notemat/issue/view/1014

85th Annual Meeting of the Texas Section of the Mathematical Association of America, Arrangements Chair, April 2005.

University and Scientific Community Service

- Panel Moderator for the National Science Foundation ADVANCE panel, March 2021
- Co-Chair UTA Research Committee, 2020-2021
- UT Arlington representative in the American Association of University Women, July 2015-present
- Founder and Faculty Advisor of the Student Chapter of *SACNAS* at UT Arlington, August 2011-present
- Member of UT Arlington President's Advisory Council of the Faculty Senate, 2011-2013
- Panelist at the Graduate School Scholarship Information Session, October 15, 2010

MATHEMATICAL RESEARCH

Areas of Specialization

Pure Mathematics: Finite Geometries and Combinatorics

Publications—Refereed Articles

- Chen, L. and Cordero, M., New Examples of Fractional Dimensional Semifield Planes, *Note di Matematica* 32 (2012), no. 2, *57–61*.
- Cordero, M. and Jha, V., Fractional Dimensions in Semifields of Odd Order, *Designs, Codes, and Cryptography*, Volume 61 (2011), No. 2, 197-221.
- Cordero, M. and Jha, V., Primitive Semifields and Fractional Planes of Order q^5 q^{5}, *Rendiconti di Matematica*, Series VII, Volume 30, (2010), 1-21.
- Cordero, M. and Jha, V., On the multiplicative Structure of Quasifields and Semifields: Cyclic and Acyclic Loops, *Note di Matematica, 29* (2009)*, suppl. n. 1, 45-59.*
- Johnson, N. and Cordero, M., Transitive Subgeometry Partitions, *Note di Matematica*, 28 (2008), n. 2, 149-152.
- Johnson, N. and Cordero, M., Transitive Partial Hyperbolic Flocks of Deficiency One, *Note di Matematica,* 29, no. 1, (2008), 89-98.
- Cordero, M., Semifield planes of order p^4 and kernel GF(*p*), *Journal of Geometry, 83(2005), 5-9.*
- Sun, S. and Cordero, M., and Smooth Quantile Estimators Under Strong Mixing: Necessary and Sufficient Conditions on Bandwidth for Weak Convergence, *Journal of Statistical Planning and Inference,* 128(2005), 397-409.
- Cordero, M. and Figueroa, R., On the Semifield Planes of Order q^4 and Dimension 2 Over the Kernel, *Note di Matematica,* 22 (2003/2004), 75-81.
- Cordero, M. and Wene, G., A Survey of Finite Semifields, *Discrete Math.*, 208/209 (1999), 125-137.
- Cordero, M. and Figueroa, R., Transitive Autotopism groups and the Generalized Twisted Field Planes, *Lecture Notes in Pure and Applied Mathematics*, 180(1997), 191-196.
- Cordero, M., Matrix spread sets of *p*-primitive semifield planes, *International Journal of Mathematics and Mathematical Sciences*, Vol. 20. No. 2, (1997), 293-298.

- Cordero, M., Martin, C. and Miller, J., Gaussian Quadrature for products of Exponential Functions, *Applied Mathematics and Computation*, (1996), 197-208.
- Cordero, M. and Figueroa, R., Towards a characterization of generalized twisted field planes, *Journal of Geometry*, 5 (1995), 54-63.
- Figueroa, R. and Cordero, M., On the generalized twisted field planes of characteristic 2, *Geometriae Dedicata*, 56 (1995), 197-208.
- Figueroa, R. and Cordero, M. Semifield Planes admitting a transitive autotopism group, Proceedings of the Twenty-Fifth Southeastern International Conference on Combinatorics, Graph Theory and Computing (Boca Raton, FL, 1994). *Congressus Numerantum,* 102 (1994), 91-95.
- Cordero, M. and Figueroa, R., Semifield planes with a transitive autotopism group, *Archiv der Mathematik*, 63 (1994), 17-22.
- Cordero, M. and Figueroa, R., On some new classes of semifield planes, *Osaka Journal of Mathematics*, 30 (1993), 171-178.
- Cordero, M., *p*-primitive semifield planes, *Annals of Discrete Mathematics*, 52(1992), 107-117.
- Cordero, M., A note on the Boerner-Lantz semifields, *Journal of Geometry*, 43(1992), 53-56.
- Cordero, M., The nuclei and other properties of *p*-primitive semifield planes, *International Journal of Mathematics and Mathematical Sciences*, Vol 15 No. 2 (1992), 367-370.
- Cordero, M., The autotopism group of *p*-primitive semifield planes, *ARS Comb,* 32 (1991), 57- 64
- Cordero, M., Semifield planes of order p^4 that admit a *p*-primitive Baer collineation, *Osaka Journal of Mathematics*, 28 (1991), 305-321.

Publications—Abstracts
- Cordero, M., Semifields and semifield planes, Abstracts of papers presented at the International Congress of Mathematicians, MADRID 2006, pg 477.
- Cordero, M., Semifield planes with a transitive autotopism group, Abstracts of papers presented to the American *Mathematical Society,* Volume 17, Number 3, # 909-51-153, March 1996, pg. 329.
- Cordero, M., Semifield planes that admit p-primitive collineations, Abstracts of papers presented to the *American Mathematical Society*, Volume 13, Number 3, # 874-51-118, April 1992, pg. 315.

Publications—Conference Proceedings
- Cordero, M. and Figueroa, R., Finite geometries, *Proceedings Sixth Caribbean Conference in Combinatorics, Graph Theory, and Computing*, Trinidad, W.I., 1991, 14-19.

Publications—Editorials
- Cordero, M., Jha, V., Montinaro, A., Vega, O., *Note di Matematica*, Volume 29, Supp.1, 2009, i-vi

Publications—Dissertation
- Cordero, M., p-primitive semifield planes, Dissertation under Professor Norman Johnson, The University of Iowa, Iowa City, May 1989, published with UMI.

Research Presentations

Invited Lectures and Presentations
1. *Non-associative algebraic structures in cryptography,* National Conference of the *Society for Advancing Chicanos and Native Americans in Science, SACNAS,* Long Beach, CA, October 2016.
2. *Finite Non-Associative Algebras in Cryptology*, *Association for Women in Mathematics (AWM) Student Chapter* meeting at University of Texas at Arlington, September 2016

3. *Finite Non-Associative Algebras used in Coding Schemes*, *Mathematics Association of America (MAA) Student Chapter* meeting at University of Texas at Arlington, April 2016
4. *Examples of Fractional Dimensional Semifield Planes*, Conference: Combinatorics 2012, Perugia, Italy, September 2012
5. *Primitive elements in finite semifields,* Department of Mathematics Colloquium, Universidad de Oviedo, Spain, June 30, 2011
6. *Primitivity in non-associative algebras,* Department of Mathematics Colloquium, UT San Antonio, November 2010
7. *Sub-geometries in Non-associative division algebras,* Department of Mathematics Colloquium, Texas Christian University, November 2010
8. *Fractional semifields*, Department of Mathematics Colloquium, The University of Iowa, Iowa City, June 2010
9. *Finite geometric and algebraic structures,* Northstar School, Arlington, Texas, January 2009
10. *Finite Semifield Planes,* University of Puerto Rico, Rio Piedras campus LSAMP Program, September 2009
11. *Finite algebraic structures for computer scientists and engineers,* University of Puerto Rico, Mayaguez Campus, September 2009
12. *Finite non-associative algebras,* National Conference of the Society for Advancing Chicanos and Native Americans in Science, SACNAS, Dallas, Texas, October 2009
13. *Combinatorics, Graph Theory, and Computers: Connections and Interplay,* Piney Woods Lecture Series, Sam Houston State University, Huntsville, Texas, February 2008
14. *Subgeometry partitions,* Department of Mathematics Colloquium, The University of Iowa, Iowa City, November 2007
15. *Semifields and their planes*, Tulane University Mathematics Colloquium, March 2007
16. *Interactions between Combinatorics and Finite Geometries,* The Society for the Advancement of Chicanos and Native Americans in Science National Conference, October 2003
17. *Combinatorics, Graph Theory, and Computers: Connections and Interplay,* Texas Section of The Mathematical Association of America Annual Meeting, Texas A& M University, Corpus Christi, April 2004
18. *On semifields with a transitive autotopism group,* Algebraic Geometry-Algebra-Number Theory Seminar,* The University of Texas at Arlington, November 2002
19. *Properties of semifields with a transitive autotopism group,* The 16th Cumberland Conference in Combinatorics and Computing, University of Mississippi, May 2002
20. *Semifields,* The University of Texas at Arlington, Department of Mathematics, February 2001
21. S*emifields with an autotopism acting transitively on one side of the autotopism triangle,* Department of Mathematics Colloquium, The University of Puerto Rico, January 200
22. *Semifields of dimension 2 over the left nucleus*, Algebra Seminar, Department of Mathematics, The University of Puerto Rico, Rio Piedras, Puerto Rico, June 1998
23. *Semifields with a transitive autotopism group*, AMS Special Session: *Almost Finite Geometries*, University of Iowa, March 1996
24. *On the generalized twisted field planes,* The 8th Cumberland Conference in Combinatorics and Computing, Vanderbilt University, April 1995
25. *Ovals in Semifield Planes, Symposium* on Ovals and Translation Planes, University of Iowa, August 1993
26. *Generalized Quadrangles in semifields,* Workshop on Semifield Planes, University of Puerto Rico, June 1993
27. *Semifields with a transitive autotopism group*, Algebraic Combinatorics Seminar, Colorado State University, Fort Collins, Colorado, March 1991
28. *Finite Geometries,* Sixth Caribbean Conference in Combinatorics and Computing, University of the West Indies, Trinidad, January 1991

29. *Semifield planes*, Central Section Meeting of the AMS, Session on Finite Geometries, Lawrence, Kansas, March 1990
30. *Finite Projective Planes*, Workshop on Applications of Algebraic Geometry, University of Puerto Rico, January 1990

Contributed Lectures and Presentations

1. *Fields without associativity? Oh! It's a semifield!* Texas Section of the Mathematical Association of America, UT Pan American, April 2007
2. *Finite semifields,* Fourth Blackwell-Tapia Conference, November 2006
3. *Semifields and semifield planes,* International Congress of Mathematicians, Madrid, Spain, August 2006
4. *Semifields of dimension 2 over $GF(p^2)$),* Combinatorics 2004, Catania, Italy, September 2004
5. *Smooth Quantile Estimators Under Strong Mixing,* Second Seattle Symposium in Biostatistics: Analysis of Correlated Data, Seattle, Washington, November 2000, joint presentation with S. Sun-Mitchell
6. *Necessary and Sufficient Conditions on Bandwidth for Weak Convergence,* Statistical Joint Meetings, Anaheim, California, August 1998, joint presentation with S. Sun.
7. *A survey of semifields,* Combinatorics 98, Palermo, Italy, June 1998, joint presentation with G. Wene.
8. *Combinatorial designs*, IMS Session on Combinatorial Problems, Raleigh, North Carolina, October 1997
9. *P-primitive semifield planes,* Combinatorics '96*,* Assisi, Italy, June 1996
10. *Albert's twisted fields,* 5th Southeastern International Conference in Combinatorics, Graph Theory and Computing, Florida Atlantic University, March 1994
11. *Semifields of order p^4,* Sectional meeting of AMS, *Finite Geometries*, Lehigh, Pennsylvania, April 1992
12. *Matrix spread sets of p-primitive semifields,* Combinatorics '90, Gaeta, Italy, June 1990

Conference participation

*   *AMS, MAA Joint Mathematics Meetings*, every year since 1999
*   National Collegiate Honors Council Assessment Workshop, Lincoln, Nebraska*,* July 2006
*   *International Congress of Mathematicians*, Madrid, Spain, August 2006
*   Texas A&M University Assessment Conference, College Station, Texas, March 2006
*   The Society for the Advancement of Chicanos and Native Americans in Science National Conference, Austin, Texas, every year since 2002
*   *Visions for the Southwest Conference*, Lubbock, Texas, March 1996.
*   Southwest Cancer Center Research Symposium, Southwest Cancer Research Center, October 2000.
*   *International Congress of Mathematicians*, Zurich, Switzerland, August 1994.
*   *Second SIAM Conference on Linear Algebra,* San Francisco, California, November 1990.
*   *Jónsson Symposium on Algebras, Lattices and Logic,* Reykjavik, Iceland, July 1990.

Graduate Student Direction
Ph.D. Dissertation Advisor

*   *Erica Bajo Calderón, (co-advisor) The University of Texas at Arlington, Expected December 2024*
    Dissertation Topic: Assessing the impact of students' understanding of quotient groups

- Carl Looney, The University of Texas at Arlington, August 2015
  Dissertation Title: *On m-inverse loops and quasigroups*
- Scott Lacy, The University of Texas at Arlington, May 2015
  Dissertation title: *Property D-Cyclic Neofields*
- Kelly Aman, The University of Texas at Arlington, August 2014
  Dissertation title: *Applications of Cubical Arrays in the Study of Finite Semifields*
- Linlin Chen, The University of Texas at Arlington, August 2012
  Dissertation title: *On primitivity and dimension of finite semifields and their planes*
- Angela Michelle Brown, The University of Texas at Arlington, May 2012
  Dissertation title: *New Results in Finite Geometries Pertaining to Albert-like Semifields*

Master's Thesis Direction
- Thagendra Timsina, MS, The University of Texas at Arlington, 2008
- Maya Savic, MA, The University of Texas at Arlington, 2007
- William Purpura, MS, The University of Texas at Arlington, 2005
- Margaret Barclay, MS, Texas Tech University, 2000
- Phoebe Tinney, MS, Texas Tech University, 1998
- Marla Barnes, MS, Texas Tech University, 1998
- Belinda Petersen, MS, Texas Tech University,1994
- Monica Enloe, MS, Texas Tech University,1993

Ph.D. Dissertation Committee Member
- Joseph Buchanan-Vega, The University of Texas at Arlington, December 2023, Area: Electrical Engineering
- Kyle Turner, The University of Texas at Arlington, August 2022, Area: Mathematics Education
- Andrew Kercher, The University of Texas at Arlington, May 2021, Area: Mathematics Education
- Rebekah Aduddell, The University of Texas at Arlington, May 2021, Area: Algebra
- Crystal Mackey, The University of Texas at Arlington, August 2020, Area: Mathematical Modeling
- Robert Campbell, The University of Texas at Arlington, May 2017, Area: Mathematics Education
- Basanti Poudyal, The University of Texas at Arlington, May 2017 Area: Algebra
- Nathan Steele, The University of Texas at Arlington, July 2016, Area: Algebra
- Julie Sutton, The University of Texas at Arlington, July 2015, Area: Mathematics Education
- Thomas Ferguson, The University of Texas at Arlington, February 2015, Area: Algebra
- Yousuf Alkhezi, The University of Texas at Arlington, November 2014, Area: Algebra
- Denise Rangel, The University of Texas at Arlington, June 2014, Area: Algebra
- Padmini Veerapen, The University of Texas at Arlington, May 2013, Area: Algebra
- Walter J Meléndez Florián, University of Puerto Rico, August 2012, Area: Finite Geometries
- Alicia Prieto Langarica, The University of Texas at Arlington, August 2012, Area: Mathematical Modeling
- Jared Painter, The University of Texas at Arlington, May 2012, Area: Algebra
- Manizheh Nafari, The University of Texas at Arlington, August 2011, Area: Algebra
- Kristen Beck, The University of Texas at Arlington, May 2010, Area: Algebra
- Richard Ferrim, The University of Texas at Arlington, May 2009, Area: Computational Mathematics
- William Cantrell, The University of Texas at Arlington, May 2002, Area: Electrical Engineering
- Lucille Hodges, Texas Tech University, May 1997, Area: Algebra
- Eric Packard, Texas Tech University, May 1995, Area: Algebra

- Mark Stamp, Texas Tech University, May 1992, Area: Algebra

Master's Thesis Committee Member

- Te'a Riley, The University of Texas at Arlington, May 2022
- Leasha Ali, MA, The University of Texas at Arlington, May 2016
- Andy Smith, MA, The University of Texas at Arlington, August 2015
- Whitney Wilbur, MA, The University of Texas at Arlington, May 2015
- Jennifer Almeida, MA, The University of Texas at Arlington, December 2014
- Michelle Rothermel, MA, The University of Texas at Arlington, May 2014
- Nicholas Neal, MA, The University of Texas at Arlington, May 2014
- Brandon Heine, MA, The University of Texas at Arlington, May 2014
- Yi Liu, MS in Statistics, The University of Texas at Arlington, March 2014
- Christopher Boyd, MA, The University of Texas at Arlington, May 2013
- Andrew Byrns, MA, The University of Texas at Arlington, April 2013
- Justin Hardin, MA, The University of Texas at Arlington, April 2013
- Frank Martinez, MA, The University of Texas at Arlington, December 2014
- John Griffis, MS, The University of Texas at Arlington, November 2012
- Emily Tang, MA, The University of Texas at Arlington, August 2012
- Thomas Stanbury, MA, The University of Texas at Arlington, August 2012
- Kim Buchmeyer, MA, The University of Texas at Arlington, May 2012
- Moeen Damrah, MA, The University of Texas at Arlington, May 2012
- Tracy Ziebarth, MA, The University of Texas at Arlington, May 2011
- Melissa Vela, MS, The University of Texas at Arlington, May 2011
- Stephanie Lane, MS, The University of Texas at Arlington, May 2011
- Kursat Guzey, MA, The University of Texas at Arlington, May 2010
- Christina Holdiness, MS, The University of Texas at Arlington, December 2009
- Linda Somerhalder, MA, The University of Texas at Arlington, December 2007
- Maria Sayan, MA, The University of Texas at Arlington, May 2007
- Minkay Tinker, MA, The University of Texas at Arlington, May 2006
- Elizabeth Howell, MA, The University of Texas at Arlington, May 2006
- Marsha Davidson, MA, The University of Texas at Arlington, December 2005
- LaTina Branch, MA, The University of Texas at Arlington, December 2005
- Kristen Beck, MS, The University of Texas at Arlington, August 2005
- Amie Menzie, MA, The University of Texas at Arlington, August 2005
- Danielle Skinner, MA, The University of Texas at Arlington, August 2005
- Kansas Pope, MA, The University of Texas at Arlington, August 2005
- Carson Clanton, MS, The University of Texas at Arlington, May 2005
- Jenai Alvarez, MA, The University of Texas at Arlington, May 2005
- David Quiqley, MA, The University of Texas at Arlington, May 2005
- Catherine Costello, MS, The University of Texas at Arlington, May 2004
- Jenny Peters, MA, The University of Texas at Arlington, December 2004
- Mark Cox, MA, The University of Texas at Arlington, May 2003
- Andrew Wilton, MS, Texas Tech University, May 2000
- Leslie Mangan, MS, Texas Tech University, May 1995

- Marla Bullock, MS, Texas Tech University, May 1994
- Haskiz Cinemre, MS, Texas Tech University, May 1990

Undergraduate Research

- Supervised several Contract Courses and summer research fellowships for Honors Students, 2005-2018
- Co-director of the National Research Experience for Undergraduates Summer Program funded by the Mathematical Association of America, 2006, 2007, 2008, 2010, 2011.
- Directed the research of Carson Clanton, who presented a talk at the Texas Section of the MAA Annual Meeting and received First Place at the Student Presentations Competition, April 2005.
- Directed the research of William Purpura, who presented a talk at the Texas Section of the MAA Annual Meeting and received First Place at the Student Presentations Competition, April 2004.
- Directed the research of Virginia Gause, Christopher Dometrius, and Jason Hensley- project supported by the National Science Foundation, Research Experience for Undergraduates program.
- Undergraduate Thesis advisor for Amy McInroe, May 1999.

Journal Editor/Associate Editor

Associate Editor, *La Matematica,* Official Journal of the Association for Women in Mathematics, January 2021-present

Associate Editor of the *American Mathematical Monthly*, Mathematical Association of America*,* December 2010-2018

Reviewer for journals

Ars Combinatoria, Communications in Algebra, Designs, Codes, and Cryptography, Discrete Mathematics, Journal of Combinatorial Designs, Journal of Algebraic Combinatorics, Journal of Difference Equations and Applications, Journal of Geometry, Mathematical Reviews, American Mathematical Society, Rocky Mountain Journal of Mathematics, Teaching Children Mathematics

Reviewer and Consultant on National Science Foundation (NSF) programs and others

- Served at NSF review panels for various programs several times.
- Ford Foundation Fellowship Program Review Panel, several times

Manuscript review

Classical Algebra, by Nicodemi, Houghton-Mifflin Publishing Company, October 2003.

An Introduction to Geometry, by Arthur Baragar, Prentice Hall Publishers, February 2000.

Book reviewer

Elementary Linear Algebra, by Larson/Edwards, Houghton Mifflin Publishing Company, July 2002.

Author /**Consultant**

Harcourt ©2008 K-6 National Mathematics Program Series, July 2005-July 2010

Texas International Education Consortium. Developed the core curriculum for undergraduate mathematics at the Jeddah College in Saudi Arabia, Spring 1998.

Consultant*, Texas Higher Education Coordinating Board*, Dwight D. Eisenhower Professional Development Grants Program, "Doing Math the Science Way," 1997-1998, Co-PIs: S. Cooper, J. Thomas, D. Driver

COMMUNITY SERVICE

- o Tutor for International Foster Care Program, Catholic Charities of Fort Worth, 2017-2018
- o Volunteer at the STEM Center of Excellent/Girl Scouts, February 2016
- o Participated in several events during Arlington's STEM Week, April-May 2015
- o Member of the Arlington STEM Council, August 2014-present
- o Participant (panelist) at the *Latinos On the Fast Track* event sponsored by the US Army @ UTA and the Hispanic Heritage Foundation, March 2015
- o Member of the Site Based Decision Making Committee at Ditto Elementary School, 2010-2012
- o Participant (Speaker) at the *Hispanic Heritage Month Celebration* at Berry Elementary School, Arlington, Texas, October 1st, 2010
- o Sponsor of the UIL Math and Science Tournament for local high school students, in which over 200 students participate, December 2003, October 2004, and October 2005.
- o Member of the Site Based Decision Making Committee at Martin High School, 2008-2010
- o Member of the *UTA/Fort Worth Distinguished Lecture Series* May 2004-May 2006.
- o Hosted, jointly with the COS and the Student Chapter of MAA at UTA, the *Math and Science Career Night* at Everman Junior High, Fall 2003.
- o *Reading program* at Roscoe Wilson Elementary School, 1998-1999.
- o Judge in the *Miss Fiestas Del Llano Pageant*, September 1997.
- o *Science Day*, Girls Scouts of America, May 1995.