

Ximena Catepillán
Professor Emerita of Mathematics, Millersville University of Pennsylvania

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Member of the **Mapuche** indigenous ethnic group, Chile

ACADEMIC DEGREES:

University of Iowa, USA, Ph.D. Mathematics
University of Iowa, USA, M.S. Mathematics
Universidad de Santiago de Chile, Chile, Magister in Mathematics

PROFESSIONAL EXPERIENCE:

Professor, Millersville University, Millersville, PA
Teaching/Research Assistant, University of Iowa, IA
Associate/Assistant Professor, Universidad de Magallanes, Patagonia, Chile
Assistant Professor, Universidad de los Lagos, Chile
Adjunct professor, Universidad de Santiago, Santiago, Chile

COURSES TAUGHT ABROAD (Mexico, Guatemala, and Belize):

Mathematics in Non-European Cultures, MATH 102, Yucatan, Mexico, every summer 2006 – 2010. Courses offered with archaeologists from the Maya Exploration Center.
Mathematics in Non-European Cultures, MATH 102 & *Social Work Community Services*, March 2016, Yucatan, Mexico. Course offered with archaeologists from the Maya Exploration Center.
Ancient Maya Mathematics & Modern Communities, MATH 102 & *Social Work Community Services*, May 2018, Guatemala & Belize. Course offered with archaeologists from the Maya Exploration Center.
Ancient Maya Culture and Community Service at the Yucatan Peninsula, Mexico, May 2019. Course offered with archaeologists from the Maya Exploration Center.

COMMUNITY SERVICE:

Mexico, May 2019: I teamed up with Millersville University MATH 102 students, and an archaeologist from Maya Exploration Center, to bring every student in Escuela Jose Vasconcelos in Ek Balam, Mexico, internet capable i-Pads. My students spent a day teaching the Maya students how to use the i-Pads. A whiteboard and a 1-year internet service were donated.

Guatemala, May 2018: I teamed up with Millersville University Math 102 students, and an archaeologist from Maya Exploration Center, to paint the elementary school Escuela Aldea Zocotzal in Flores, Guatemala. I taught (in Spanish) Maya Arithmetic, for two days, to first and second-grade Maya students.

Mexico, May 2017: I teamed up with Millersville University Math 102 students, and an archaeologist from Maya Exploration Center, to paint the elementary school Colegio El Apostol del Arbol in Yaxunah, Mexico. I taught (in Spanish) Maya Arithmetic to a sixth-grade class of Maya students.

Lancaster, PA, 2008 – 2019: I led Millersville University, UNIV 103, freshman seminar students (Culture, Science, and Mathematics in the pre-Columbian Americas), to do volunteer work in the annual United Way Day of Caring,

RESEARCH AREAS: Operator Theory, and Ethnomathematics with focus on the mathematics and science of the Pre-Columbian Americas.

COURSES DEVELOPED:

Tópicos en Etnomatemáticas, Magister en Educación Matemática, Universidad de Santiago de Chile USACH, Chile 2021
Ethnomathematics, Math697, Millersville University, Master in Mathematics Education, with Cynthia Taylor, 2014
Women in Mathematics and Science, SCMA391/WSTU 391, D (Diversity) & P (Perspectives) course, Millersville University, with Natalia Dushkina and Nazli Hardy, 2008
Culture, Science and Mathematics in the pre-Columbian Americas, UNIV 103, Millersville University, Freshman Seminar for undecided students, 2006

Mathematics around the World, EDW 757, Millersville University, Educational Workshop for K-12 mathematics teachers, with Janet White, 2006
College Algebra Enrichment, MATH 107, 2001, Millersville University, with Robert Buchanan and Charles Denlinger
Mathematics in Non-European Cultures, MATH 102, 1993, D (Diversity) course, Millersville University

AWARD:

Yueh-Gin Gung and Dr. Charles Hu Award for distinguished service to the field of mathematics, given by the Mathematical Association of America MAA, 2025 <https://maa.org/yueh-gin-gung-and-dr-charles-y-hu-award-for-distinguished-service/>

BOOKS & BOOK CHAPTERS:

Springer, Research in History and Philosophy of Mathematics, *Two Examples of Ethnomathematics: The intersection of culture, history, and mathematics*, with Cynthia Huffman, *Annals of the Canadian Society on the History and Philosophy of Mathematics CSHPM*, 2024
https://link.springer.com/chapter/10.1007/978-3-031-72936-2_7

MAA Press, Classroom Resource Materials, chapter 1, *Investigating foundations of ancient Rapa Nui houses*, in the book *Teaching Mathematics Through Cross – Curricular Projects*, with Cynthia Huffman, 2024
<https://www.ams.org/books/clrm/072/clrm072-endmatter.pdf>

AMS/MAA Classroom Resource Materials, chapter 23, *The EPaDel Community*, in the book *Count Me In, Community and Belonging in Mathematics*, with Linda McGuire, 2022 <https://bookstore.ams.org/CLRM/68>

MAA Notes Publishing, chapter 22, *Culture, Science, and Mathematics in the pre-Columbian Americas*, in the book *Mathematical Themes in a First-Year Seminar*, January 2021
<https://old.maa.org/sites/default/files/pdf/pubs/books/members/NTE91.pdf>

Mathematics in a Sample of Cultures, 2nd Ed. with two additional chapters, co-authors Waclaw Szymanski and Antonia Cardwell, Kendall-Hunt Publishing Co., August 2019. Revised 2nd Ed. August 2022.
<https://he.kendallhunt.com/product/mathematics-sample-cultures>

Mathematics in a Sample of Cultures, online revised version with Waclaw Szymanski & Antonia Cardwell, Kendall-Hunt Publishing Co., 2019 <https://he.kendallhunt.com/product/mathematics-sample-cultures>

Springer-Verlag Series, chapter 19, *An Ethnomathematics Course and a First-Year Seminar on the Mathematics of the Pre-Columbian Americas*, AWM Volume, *Mathematics Education, A Spectrum of Work in Mathematical Sciences Departments*, January 2017 https://link.springer.com/chapter/10.1007/978-3-319-44950-0_19

Mathematics in a Sample of Cultures, textbook with Waclaw Szymanski, Kendall-Hunt Publishing Co., January 2016

PUBLICATIONS:

An Ethnomathematics Adventure in Rapa Nui: With Cynthia Huffman, CMS Notes of the Canadian Society of Mathematics, June 2025 <https://notes.math.ca/en/article/an-ethnomathematics-adventure-in-rapa-nui/>

Une aventure ethnomathématique à Rapa Nui: Avec Cynthia Huffman, SMC Notes de la Société mathématique du Canada, juin 2025 <https://notes.math.ca/fr/article/une-aventure-ethnomathematique-a-rapa-nui/>

Developing a written numbering system in Iñupiaq: a beautiful ethnomathematics example, with Cynthia Huffman, MAA Math Focus Magazine, page 22, February 2025
<https://digitaleditions.walsworth.com/publication/?i=840016&view=issueBrowser>

Phnom Penh, Cambodia: The oldest inscription of Zero (description), MAA Math Focus Magazine, February 2025 <https://digitaleditions.walsworth.com/publication/?i=840016&p=20&view=issueViewer>

Mathematics in faraway and forgotten places, with Cynthia Huffman, MAA Math Horizons Magazine, February 2024 <https://digitaleditions.sheridan.com/publication/?i=814988&p=3&view=issueViewer>

The History of Mathematics is the History of You, MAA Focus, with HOM SIGMAA Executive Board, page 40, October 2023 <https://digitaleditions.walsworth.com/publication/?i=803817&view=issueBrowser>

Computations using Maya Numbers, Mexicolore UK online magazine for teachers, mexicolore.co.uk, May 2023 <https://www.mexicolore.co.uk/maya/home/computations-using-maya-numbers>

Cómputos usando Números Maya, Mexicolore UK online magazine for teachers, mexicolore.co.uk, September 2023 <https://www.mexicolore.co.uk/maya/home/computos-usando-numeros-maya>

MAA Convergence Mathematical Treasure: The Cambodian Zero by Frank J. Swetz. Contributed with the pictures taken at the National Museum of Cambodia in Phnom Penh, Cambodia, 2023
<https://old.maa.org/press/periodicals/convergence/mathematical-treasure-the-cambodian-zero>

Maya Numbers and Computations, Aztlander Magazine of the Ancient Americas, Vol.3, No. 1, January 2023, <https://publuu.com/flip-book/288247/676281>

Misterios Matemáticos con Actividades para el Aula de Clases, MAA Convergence Journal, with Cynthia Huffman and Scott Thuong, 2022

<https://old.maa.org/press/periodicals/convergence/misterios-matem-ticos-de-rapa-nui-con-actividades-para-el-aula-de-clases-introducci-n>

Mathematical Mysteries of Rapa Nui with Classroom Activities, MAA Convergence Journal, with Cynthia Huffman and Scott Thuong, 2021

<https://old.maa.org/press/periodicals/convergence/mathematical-mysteries-of-rapa-nui-with-classroom-activities-introduction>

Zero in the pre-Columbian Americas, with Alonso Méndez, Maya Exploration Center, 2017

https://www.mayaexploration.org/pdf/ZeroInPreColumbianAmericas_CatepillanMendez_Sept2017.pdf

NCTM's Integrating Math Project, K-6 online anthology's collaborator, with Cynthia Taylor and Megan Rehm, February 2016

Maya Calendars in the Classroom, MTMS (Mathematics Teaching in the Middle School), with Cynthia Taylor and Megan Rehm, Vol.21, No.2, September 2015

<https://pubs.nctm.org/view/journals/mtms/21/2/article-p106.xml>

Career profile: Gregory Coxson, Mathematical Engineer, MAA Math Horizons, November 2014

<https://www.jstor.org/stable/10.4169/mathhorizons.22.2.15>

Counting and Arithmetic of the Inca, Revista Latinoamericana de Etnomatemática RLE, with Waclaw Szymanski, 2012 <https://www.redalyc.org/articulo.oa?id=274023595003>

An Ethnomathematics Course for Non-Mathematics Majors, Proceedings of the 2011 AMATYC Conference, 2011

Women in Mathematics and Science course at Millersville University, Proceedings of the 2011 AMATYC Conference with Natalia Dushkina, 2011

Un curso interdisciplinario en matemáticas, ciencias, y los estudios de las mujeres en la Universidad de Millersville, Digital Journal Matematicalia, Spain, with Natalia Dushkina and Nazli Hardy, 2009 <https://documat.unirioja.es/servlet/articulo?codigo=3130573>

Maya Calendar Conversions, Convergence Journal of the Mathematical Association of America MAA, with Waclaw Szymanski, 2010 <https://old.maa.org/press/periodicals/convergence/maya-calendar-conversions>

The Calendars of the Maya, Proceedings of the 2009 AMATYC Conference, with Waclaw Szymanski, 2009

Linear Combinations of Isometries, Rocky Mountain Journal of Mathematics, with Waclaw Szymanski, 2004 <https://www.jstor.org/stable/44238743>

Operadores en Espacios de Hilbert, workshop lecture notes for the XXVIII Semana de la Matemática, 2001

Semigroup Properties of Factors in the Polar Decomposition of the Operator de-Moivre Formula, Proceedings of the American Mathematical Society, with Waclaw Szymanski, 1998

<https://www.jstor.org/stable/118959>

A Model of a Family of Power Partial Isometries, Far Eastern Journal of Mathematical Sciences, with Waclaw Szymanski, 1996

<https://zbmath.org/pdf/01374491.pdf>

Parameterization of Canonically Koszul Invertible Pairs, Journal of Operator Theory, 1995 <https://www.jstor.org/stable/24714692>

Multiple Canonical Decomposition of Families of Operators and a Model for Quasinormal Families, Proceedings of the American Mathematical Society, with Waclaw Szymanski and Marek Ptak, 1993

<https://www.jstor.org/stable/2161227>

Canonically Koszul Invertible, Koszul Invertible, and Subnormal Pairs of Operators on a Hilbert Space, Ph.D. Thesis, University of Iowa, Iowa City, IA, 1991

Riemman Matrix of a Surface of Genus 2, Journal Notas de la Sociedad de Matemática de Chile, 1987 <https://zbmath.org/0673.30031>

Riemman Matrix of a Surface of Genus 2 with 5 Automorphisms, Proceedings of the 2nd Conference in Complex Geometry, Chile, 1986

Differential Equations and Discrete Groups, Proceedings of the 1st Conference in Complex Geometry, Chile, 1984

INTERVIEWS:

Interview for Revista ABACOM by Mg. Juan Leiva Vivar. ABACOM is a magazine from Universidad Austral de Chile, for mathematics students and high school teachers, July 2025

https://www.centroccbb.cl/files/ugd/cf4914_a4effedd00124755b7e250cec1336094.pdf

AWM Association for Women in Mathematics/Math for America Essay Contest. Essay written by Daniel Coxson, Richard Montgomery High School, Rockville MD, titled "Ximena Catepillán, Mathematical Ambassador to the Americas," won an Honorable Mention in the Grades 9-12 category, 2022.

<https://awm-math.org/awards/student-essay-contest/2022-student-essay-contest-results/2022-student-essay-contest-grades-9-12-hm-1/>

Podcast interview with Michael Parker West, The Way Out is Back Through, Local School Districts NC, October 2022 <https://www.thewayoutisbackthrough.org/about.html>

SELECTED PRESENTATIONS: (Since 2015)

Tabla Redonda Pensamiento Matemático en las Culturas Prehispánicas, participante virtual con la matemática de los maya, Universidad Nacional de Educación, Ecuador, September 2025

MathFest2025, MAA Section Activities – Innovative Programs and Initiatives, with Linda McGuire, Sacramento, CA, August 2025

California State University Monterey Bay, CSUMB, Ethnomathematics: the connection between culture, history, and mathematics, Keynote lecture and workshop, Summer Academy, Monterey Bay, CA, June 2025

III Coloquio Internacional de Historia y Filosofía de la Matemática, Keynote lecture, *La Etnomatemática como instrumento de enseñanza*, Universidad de Magallanes, Universidad Nacional de Trujillo, Universidad Nacional Pedro Luis Gallo, December 2024

Whitman College, Colloquium presentation, *Computations among Maya calendars*, Walla Walla, WA, November 2024

Triton College, Invited Lecture, *Ethnomathematics in the pre-Columbian Americas*, River Grove, Chicago IL, September 2024

Dominican University, Invited Lecture, *Ethnomathematics in the pre-Columbian Americas*, River Forest, Chicago IL, September 2024

MathFest2024, Invited Paper Session, When are we going to use this? Interdisciplinary Projects in Pure Math Courses, with Cynthia Huffman, Indianapolis, IN, August 2024

California State University Monterey Bay, CSUMB, Helen Rucker Summer STEAM Pathway Program, *Playing with Mathematics Around the World*, Monterey Bay, CA, July 2024

Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Keynote Lecture: *Ethnomathematics and Kinship Systems*, Anchorage, AK, June 21, 2024

Annual Meeting of the Pacific Northwest Section of the Mathematical Association of America, Keynote Lecture: *Ethnomathematics: the connection between culture, history, and mathematics*, Anchorage, AK, June 20, 2024

Millersville University and Franklin & Marshall College, Colloquium presentation, *Tracing Unicursal Indigenous Graphs*, Millersville, PA, April 2024

Adelphi University, Pohle Colloquium, *Maya numbers and calendrical computations*, Garden City, NY, February 2024

XCI Encuentro Annual Sociedad de Matemática de Chile, SOMACHI, La Etnomatemática en el Colapso de los Natchez, Santiago, Chile, December 2023

Hofstra University, Seminar Lecture, *Ethnomathematics and Kinship Systems*, Hempstead, NY, October 2023

Hofstra Cultural Center, Hofstra University, Keynote Lecture, *Ethnomathematics: The connection between culture, history, and mathematics*, Hempstead, NY, October 2023

Universidad de Santiago de Chile USACH, Misterios Matemáticos de Rapa Nui con Actividades para el Aula de Clases, launch of Journal Morfismo for USACH mathematics alumni, Santiago, Chile, October 2023

Universidad de Valparaíso IMUV, Workshop, *Etnomatemáticas: Conexión entre Cultura, Historia y Matemáticas*, Valparaíso, Chile, July 2023 (canceled because of weather)

Fundación Panameña para la Promoción de las Matemáticas, FUNDAPROMAT, *Números Alrededor del Mundo*, virtual, Panama, June 2023

California State University Monterey Bay, CSUMB, *An Introduction to Ethnomathematics*, Second Summer Academy on Culturally Responsive Education, virtual, Monterey Bay, CA, June 2023

Canadian Society for History and Philosophy of Mathematics, CSHPM, *Congress of the Humanities and Social Sciences*, *Ethnomathematics: The intersection of culture, history, and mathematics*, with Cynthia Huffman, Toronto, Canada, May 2023

Philadelphia Undergraduate Mathematics Conference, PUMC Rutgers University Camden, sponsored by Bryn Mawr College, La Salle University, Rutgers University, and Temple University, Keynote speaker, *Ethnomathematics: The connection between culture, history, and mathematics*, Camden, NJ, April 2023

Universidad de Valparaíso, Colloquium presentation at Instituto de Matemáticas Universidad de Valparaíso, IMUV, *Etnomatemática: La Conexión entre cultura, historia y matemática*, Valparaíso, Chile, Marzo 2023

Aztlander, Livestream Event, *Maya Numbers and Computations*, January 2023 Video recording at <https://youtu.be/EJdjl3rTREE> <https://publuu.com/flip-book/288247/676281>

Universidad de Valparaíso, *Introducción a la etnomatemática*, conversación con estudiantes del Seminario Educación Matemática, Valparaíso, Chile, November 2022

PASHoM, Philadelphia Area Seminar on the History of Mathematics, *Maya Calendar Computations*, hybrid, Villanova University, PA, November 2022

Pasadena College, Latinx Heritage Celebration, *A Virtual Mathematical Trip to pre-Columbian Cultures*, virtual, Pasadena, CA, October 2022

Millersville University and Franklin & Marshall College, Colloquium presentation, *Mathematics and Kinship Systems*, Millersville, PA, September 2022

Canadian Society on the History and Philosophy of Mathematics CSHPM, *Ethnomathematics and Kinship Systems*, virtual, Canada, July 2022

Millersville University Honors & Awards Banquet, presentation *A Math Mystery in Rapa Nui*, Millersville, PA, May 2022

West Chester University, Colloquium presentation, *Mathematics and Kinship Systems in Australia and the Republic of Vanuatu*, West Chester, PA, May 2022

Fundación Panameña para la Promoción de las Matemáticas, FUNDAPROMAT, *Un Viaje Matemático por las Culturas Precolombinas*, Parte 2, virtual, Panama, February 2022

Fundación Panameña para la Promoción de las Matemáticas, FUNDAPROMAT, *Un Viaje Matemático por las Culturas Precolombinas*, Parte 1, virtual, Panama, October 2021

Olimpiadas Matemáticas de Chile, presentation, *Un Viaje Matemático a Rapa Nui*, virtual, Universidad de Santiago de Chile, Chile, August 2021

Women in STEM & LLC, Millersville University, *Teaching About the Cultural Richness of Mathematics*, virtual, Millersville, PA, April 2020

MathFest 2019, MAA Membership Committee, panel presenter and round table participant, Cincinnati, OH, August 2019

Universidad de la Frontera, *Un Curso de Etnomatemáticas y un Seminario de las Matemáticas de las Americas pre-Colombinas*, Keynote Speaker, Temuco, Chile, August 2018

MathFest 2018, MAA Membership Committee, panel presenter and round table participant, Denver, CO, August 2018

MathFest 2018, *The History of the EPaDel Careers in Mathematics Conference*, officers meeting, Denver, CO, August 2018

Millersville University Holocaust Memorial Night, presenter and round table participant, Millersville, PA, April 2017

PASSHEMA, Indiana University of Pennsylvania, *Ethnomathematics: Teaching About the Cultural Richness of Math*, Keynote speaker, Indiana, PA, March 2017

Penn State University, *Maya Civilization*, presentation for math majors, Harrisburg, PA, 2016

MathFest 2016, *A course on the mathematics of the pre-Columbian Americas*, Columbus, OH, August 2016

Primer Congreso Latinoamericano de Etnomatemáticas, *Cero en las Americas pre-Colombinas*, Sololá, Guatemala, June 2016

Penn State University, *Maya Calendars*, presentation for math majors, Harrisburg, PA, 2015
AMATYC, *Women in Mathematics and Science Course at Millersville University*, with Natalia Dushkina, New Orleans, LA, November 2015
MALAS Conference, *Building Interdisciplinary Bridges*, Millersville University, Millersville, PA, 2015
MathFest 2015, *An Animation of the Maya Tzolkin Calendar*, with Megan Rehm and Cynthia Taylor, Washington DC, August 2015
PCTM, *Maya Calendars in the Classroom*, with Megan Rehm and Cynthia Taylor, Lancaster, PA, August 2015
JMM 2015, *Remarks on Vedic Arithmetic – Multiplication*, with Wacław Szymanski, San Antonio, TX, January 2015

MAA MATHEMATICAL ASSOCIATION OF AMERICA

MAA HOM SIGMAA **Chair** History of Math Special Interest Group, January 2025 – 2028
MAA Pacific Northwest Section PNW, **Invited speaker** for two presentations at the Annual Section Meeting:
Ethnomathematics: the connection between culture, history, and mathematics, June 20, Anchorage, AK 2024
Ethnomathematics and Kinship Systems, June 22, Anchorage, AK 2024
MAA Congress member, Representative-at-Large for the Interests of Members Residing outside the United States, July 2024 – 2027
MAA Congress, Nominating Committee member, July 1, 2026
MAA EPaDel Volunteer Visiting Speaker Program, 2024 – present
MAA HOM SIGMAA **Chair** History of Math Special Interest Group, January 2022 – 2025
MAA MathFest 2023 Ethnomathematics Session **Chair** organizer and moderator 2023
MAA T. Christine Stevens Award for Leadership Development, **Chair** 2022 – 2025
EPaDel Careers in Math Conference, Millersville University, Organizing Committee, Fall 2023
MAA MathFest 2021 Ethnomathematics Session **Chair** organizer and moderator 2021
MAA CUSP Committee on Undergraduate Student Programming, January 2021 – present
MAA EPaDel Spring Conference at Millersville University, Organizing Committee **Chair**, 2021
MAA EPaDel Bylaws Committee member, Fall 2018-Spring 2019
MAA EPaDel Section Representative Elections Committee, **Chair** Fall 2018
MAA **Chair** EPaDel Section (Eastern Pennsylvania & Delaware) 2017 – 2019
MAA JMM Ethnomathematics Session **Chair** organizer and moderator, Baltimore, MD, 2019
MAA Mentor for Project Next, mentoring an NSF post-doc faculty at UPenn, August 2018 – 2019
MAA **Chair** Nominating Committee for EPaDel Representative to the Congress, September-December 2018
MAA **Vice-Chair** EPaDel Section (Eastern Pennsylvania & Delaware) 2015 - 2017
MAA Centennial Celebration, *The Musical* cast, Franklin & Marshall College, March 2015
MAA Member of Committee on Sections 2015 - 2020
MAA EPaDel **Chair** Nominating Committee, Fall 2014
MAA Mentor for the ECM (Early Career Mathematicians) Mentoring Network, 2014 – 2016
MAA JMM Ethnomathematics Session **Chair** organizer and moderator, San Antonio, TX, Jan. 2015
MAA HOM-SIGMAA representative for the EPaDel section, 2014 – 2020
MAA EPaDel Careers in Math Conference, Temple University, Organizing Committee, Fall 2013
MathFest 2011, Organizer and moderator for two sessions: History of Mathematics and its Uses in the Classroom, August 2011
MAA Travel Study Programs Committee, 2011 – 2014
MAA Member-at-large in the Executive Committee of the EPaDel section, 2007 – 2012
MAA EPaDel Student Chapter Coordinator 2009 – 2010
MAA EPaDel Silent Auction **creator** & coordinator for spring and fall conferences 2011 – 2015
MAA departmental liaison at Millersville University 2005 – 2020
MAA EPaDel Governor's Nominating Committee, Fall 2012
MAA EPaDel Fall Conference at Millersville University, Organizing Committee **Chair**, 2012 & 2017
MAA EPaDel Careers in Mathematics Conference Committee, Millersville University, **Chair**, 2009 & 2017

MAA INTERSECTION NEWSLETTER ARTICLES: Intersection is the newsletter for the officers of all 29 Sections of the Mathematical Association of America.

Let's Increase the MAA's Student Membership! Fall 2016
Vendors at Section Meetings Fall 2017

BOOK REVIEWS: *101 Careers in Mathematics* 3rd ed., with Antonia Cardwell, MAA Horizons Magazine, February 2015

ABROAD WORKSHOPS/MINI-COURSES ATTENDED: (Since 2005)

The following workshops have all been offered by archaeologists from the Maya Exploration Center (MEC) and Ancient Explorations.

An Expedition Through the Cities of Ancient Greece, Greece, Ancient Explorations, June 2025

Zenith Passage at Ancient Angkor and Other Remote Khmer Ruins, Cambodia, Ancient Explorations, August 2023

Ancient American Pyramids: 4000 years of pyramid building in the Mississippi River Valley, Ancient Explorations, June 2022

Rapa-Nui: Exploring and Mapping its Ancient Villages, Rapa-Nui, Chile, Ancient Explorations, July 2019 (In December 2019 I received a temporary license by Tukuph Technology to review imagery obtained during the July trip.)

The Amazon Basin of Brazil, Ancient Civilizations & Modern Tribes, Center for STEM Education, Amazonas, Brazil, July 2017

The History, Culture and Artistic Traditions of Cuba, Center for STEM Education, Cuba, July 2016

Ancient Inca Culture and Modern Ecology, Center for STEM Education, Bolivia, June 2015

Workshop for college teachers of astronomy, mathematics and related areas, Chautauqua (University of Texas, Austin), Chiapas, Mexico, August 2009

Workshop, Ancient Inca mathematics and culture: Cuzco, Machu Picchu, and the Nazca Lines, Chautauqua (University of Texas, Austin), Peru, July 2008

Workshop, Ancient Inca mathematics and culture: Cuzco, Machu Picchu, and the Sacred Valley, Chautauqua (University of Texas, Austin), Peru, June 2007

Workshop, Ancient Maya mathematics in the highlands of Guatemala, Chautauqua (University of Texas, Austin), Guatemala, June 2006

Workshop, Ancient Maya mathematics in the ruins of Quintana Roo, Chautauqua (University of Texas, Austin), Yucatan Peninsula, Mexico, June 2005

PROFESSIONAL ORGANIZATIONS:

CSHPM Canadian Society of the History and Philosophy of Mathematics

IMS Institute of Maya Studies

MAA Mathematical Association of America & **HOM SIGMAA**

AMS American Mathematical Society

AWM Association of Women in Mathematics

SOMACHI Sociedad de Matematica de Chile

AWS Association for Women in Science

TWOWS Third World Organization for Women in Science

AAPLAC Association of Academic Programs in Latin America & the Caribbean

MALAS Midwest Association for Latin American Studies

RELAET Miembro de la Red Latinoamericana de Etnomatemática

REFEREE:

MAA Convergence Journal, 2019 – present

JMC Journal of Mathematics and Culture, 2010 – present

RLE Revista Latinoamericana de Etnomatemáticas, 2014 – 2017

MAA Mathematics Magazine, 2014

EDITOR: Revista Morfismo Universidad de Santiago de Chile USACH, 2022 – present

MAA Convergence Editorial Board, 2019 – present

NEWSLETTER CONTRIBUTOR: Representing Chile on the International Study Group of the Relations Between the History and Pedagogy of Mathematics, An Affiliate of the International Commission on Mathematical Instruction HPM, 2025 – present

SOCIEDAD DE MATEMATICA DE CHILE (SOMACHI):

Ethnomathematics session organizer and moderator, Annual SOMACHI Conference, December 2021

ADVISORY BOARD: Member of the Advisory Board **FUNDAPROMAT**, Fundación Panameña para la Promoción de las Matemáticas, Panama, 2022 – present

Member of the Advisory Board **Revista Morfismo** of Universidad de Santiago de Chile USACH, Chile, 2022 – present

MILLERSVILLE UNIVERSITY COMMITTEES: (Since 2015)

Millersville University Foundation, 2021 – present

Millersville University Foundation, Chair Committee on Directors, 2023 – 2024

President Transition Committee, 2018 – 2019

Middle States Steering Committee, 2017 – 2020

Middle States Group 1 Committee, 2017 – 2020

Presidential Search Committee, appointed by the Council of Trustees, 2017 – 2018

Strategic Advisory Council (SAC) co-chair, June 2015 – May 2019

Strategic Plan Facilitation Team, June 2015 – May 2019

Strategic Planning Steering Committee, June 2015 – May 2019

SAC, Undergraduate Research Metric subcommittee, Fall 2015

Tenure & Promotion Committee, School representative, 2013 – 2015

Multidisciplinary Studies Curriculum Committee, School representative, 2013 – 2015

President's Advisory Leadership Council, Student Success Group, 2012

Enhance Engaged Learning Experience, Transformation Action Idea Team, Millersville University, 2012

APSCUF, Social Committee, 2011 – 2020

Women's Studies Curriculum Committee, 2011 – 2020

MU Foundation Board of Directors Member, 2010 – 2017

MU Foundation, Committee on Directors, 2011 – 2017

MU Wellness Program Committee, 2010 – 2015