FABIO AUGUSTO MILNER

1. DEGREES & QUALIFICATIONS

Licenciado Ciencias Matemáticas	University of Buenos Aires	1976
M.S.	University of Chicago	1979
PhD	University of Chicago	1983

2. ACADEMIC POSITIONS HELD

Assistant Director	Simon A. Levin Mathematical, Computational and Modeling Sciences Center, ASU	August 2019-
Assoc. Dean of Grad. Initiatives	The College of Liberal Arts and Sciences, ASU	July 2018-
Visiting Professor	Basque Center for Appl. Math.	June-July 2017
Visiting Professor	Basque Center for Appl. Math.	November-December 2016
Visiting Professor	University of Trento, Italy	October 2014
Honors Faculty, Barrett College	Arizona State University	2013-
Affiliated Faculty, Teachers Coll.	Arizona State University	2013-
Director, Mathematics STEM Ed.	Arizona State University	2009-
Director, First Year Mathematics	Arizona State University	2008-
Professor of Mathematics, Appl. Math. and Math. Education	Arizona State University	2008-
University Management Team	Arizona State University	2008-
Visiting Professor	University of Trento, Italy	June-July 2006
Visiting Professor	University of Bordeaux II, France	May-June 2006
Professor	University of Puerto Rico Mayagüez, Puerto Rico	Jan.-July 2004
Visiting Professor	University of Trento, Italy	Jan.-July 2003
Visiting Professor	University of Palermo, Argentina	July 2001
Visiting Professor	University of Trento, Italy	May-June 2001
Visiting Professor	Nankai University, China	May 2000
Visiting Professor	University of Bordeaux II, France	June 1998
Visiting Professor	University of Trento, Italy	Dec. 1996
Visiting Professor	Nankai University, Tianjin, China	Oct. 1996
Visiting Professor	University of Bordeaux II, France	July 1995
Faculty Convenor	Human Ecology, Global Studies Program, Purdue University	1994-2002
Professor	Purdue University	1994-2008
Visiting Professor	University of Bordeaux II, France	June-July 1991
Associate Professor	Purdue University	1989-94
Research Associate	Institute “Mauro Picone” (Rome, Italy)	1988-94
Research Associate	University of Trento (Italy)	1988-
Associate Professor	2nd University of Rome (Italy)	1987-92
Instructor	Chicago State University	1984
Assistant Professor	Purdue University	1983-89
Research Associate	University of Chicago	1983
Instructor	De Paul University	1982-83
Lecturer	University of Chicago	1981-82
Lecturer	Elmhurst College	1981-82
Data Analyst & Statistician	University of Chicago	1979-82
Instructor	Central YMCA Com. College	1979-81
Tutor of H.S. Math. & Physics	Buenos Aires	1978
Lecturer	University of Buenos Aires	1978

Research & Teaching Assistant	University of Buenos Aires	1976-78
Teaching Assistant	University of Buenos Aires	1974-75

3. COMMITTEE WORK, CONSULTING AND OTHER PROFESSIONAL EXPERIENCE

- SACNAS Board of Directors, January 2021-December 2023.
- Justice, Diversity, Equity and Inclusion Committee Member, ASU, January 2021-July 2023.
- ABOR Statewide Quantitative Reasoning Working Group, July 2020-present.
- Conference Board of the Mathematical Sciences (CBMS), Arizona Executive Team Member, January 2019-present.
- National Math Alliance, Master Facilitator, January 2019-present.
- ACT Consultant, August 2018.
- Executive Committee Member, The College of Liberal Arts and Sciences, Arizona State University, July 2018-present.
- Curriculum Committee Member, The College of Liberal Arts and Sciences, Arizona State University, July 2018-present.
- Academic Grievance Committee Member, The College of Liberal Arts and Sciences, Arizona State University, July 2018-present.
- Education Development Center, *Transition to Algebra* Advisory Board, Boston, MA, May 2017-July 2018.
- Arizona Department of Education, Technical Reviewer of Arizona College and Career Readiness Standards for K-12, December 2016.
- Achieve, Inc., Middle Jobs Pathways Analysis, Washington, DC, December 2014-June 2015.
- American Mathematical Society Committee on Science Policy, meeting with US Congress, Washington, DC, March 2014.
- US Department of Education, OCTAE Mathematics Coach, Washington, DC, December 2013-September 2016.
- National Math Alliance, Mentor and F-GAP Facilitator, 2013-present.
- ASU Committee on Academic Freedom and Tenure, 2013-2016.
- Adaptive Curriculum, Mathematics Development Team, Scottsdale, AZ, November 2012-February 2013.
- Girl Scouts of America, STEM Advisory Board, Phoenix, AZ, 2012-2016.
- MIRS Committee, Office of Research Integrity and Assurance, ASU, AY 2011-12.
- Partnership for Assessment of Readiness for College and Career (PARCC), Statewide Mathematics Committee, AY 2011-12.
- MIRS Committee, Office of Research Integrity and Assurance, ASU, AY 2011-12.
- Arizona State University, Secondary Education Concentration Development Committee, Tempe, AZ, September 2010-May 2011.
- Education Development Center, *Transition to Algebra* Advisory Board, Boston, MA, June 2010-July 2011.
- Adaptive Curriculum, Mathematics Development Team, Scottsdale, AZ, May 2010-November 2011.
- National Board for Professional Teaching Standards (NBPTS), Mathematics Committee, Washington, DC, May 2010-present.
- Mary Lou Fulton Teachers College, Math Consortium Leader, Teaching Foundations Project, Tempe, AZ, April 2010-August 2014.
- U. of Kentucky/Florida State U., Advisory Board on HS Geometry, 2009.
- Council of Chief State School Officers (CCSSO), Mathematics Common Core Standards Advisory Board, Washington, DC, July-December 2009.
- National Board for Professional Teaching Standards (NBPTS), Mathematics Standards Revision, Washington, DC, 2008.

- Achieve, Inc., ADP Advisory Panel, Washington, DC, September 2008.
- University Management Team, Arizona State University, July 2008-present.
- State of Indiana DoE, Review Committee for High School Mathematics Standards, Indianapolis, IN, February 2008.
- I-STEM Resource Network, Professional Development Initiative on Out-of-Field Middle School Mathematics Teachers, January-April 2007.
- State of Indiana DoE, Review Committee for End-of-Course Algebra Assessments, Indianapolis, IN, November 2005.
- State of Indiana DoE, Core-40 Update, Indianapolis, IN, October 2005.
- Purdue University Faculty Censure and Dismissal Procedures Committee, AY 2005-07 (Chair, 2006-07).
- Achieve, Inc., National Assessment Governing Board, Concept Paper for Mathematics in Grade 12, Washington DC, May 2005.
- State of Indiana DoE, Assessment Review Committee for End-of-Course HS Algebra II, Indianapolis, IN, November 2004.
- Purdue University Promotions Committee, Panel X, AY 2004-07.
- State of Indiana DoE, Assessment Review Committee for End-of-Course HS Algebra I, Indianapolis, IN, April 2004.
- State of Indiana DoE, Assessment Review Committee for End-of-Course HS Algebra I and II, Indianapolis, IN, July-November 2002.
- UNESCO and Buenos Aires Province DoE (Argentina), Training and Pedagogical Improvement in the Thematic Areas, La Plata, Argentina, April 1998.
- Purdue University Senate Steering Committee, 1995-96.
- Purdue University Advisory Committee for International Programs, 1994-2002.
- Purdue University Senator At-Large, 1994-96.
- Purdue University School of Science Faculty Council-At-Large, 1993-96.
- Purdue University School of Science Educational Policy Committee, 1993-96.
- Purdue University Faculty Censure and Dismissal Procedures Committee, 1992-94.
- Purdue University Academic Records Committee, 1991-94.

4. RESEARCH INTERESTS

- Applied Mathematics
- Dynamical Systems
- Mathematical Biology
- Mathematical Modeling
- Mathematics/Science Education
- Nonlinear Partial Differential Equations
- Numerical Analysis
- Online Education

5. COMPETITIVE GRANTS WON

- REU Site: Mathematical and Theoretical Biology Institute (MTBI) Grant (PI with P. Kenney) from the National Science Foundation (NSF), *March 1, 2018-July 31, 2021*, **$294,954**
- Research Experiences for Undergraduates (REU) Grant (PI with P. Kenney) from the National Security Agency (NSA), *May 15, 2020-August 31, 2021*, **$75,000**
- Research Grant (Co-PI with K. van Lehn and J. Wetzel) from the National Science Foundation (NSF), *September 1, 2016- August 31, 2019*, **$1,346,298**
- Research Grant (Co-PI with P. Thompson and M. Ashbrook) from the National Science Foundation (NSF), *September 1, 2016- August 31, 2019*, **$810,939** (with 1-year supplement).

- Research Grant (Co-PI with M. Carlson, L. Saldanha, C. van de Sande and K. Moore) from the National Science Foundation (NSF), **September 1, 2013- August 31, 2018**, **$2,519,729**
- Graduate Assistantships in Areas of National Need (GAANN) Grant (PI) from the U.S. Department of Education, *September 1, 2012 – August 31, 2015*, **$400,000**
- Research Grant (Co-PI with M. Carlson, W. Raskind, G. Slemmer and D. Teuscher) from the National Science Foundation (NSF), *September 1, 2011- August 31, 2014*, **$2,133,451**
- Graduate Recruitment Overseas (GRO) Grant, Purdue University, *October 2006*, **$15,000**
- Teaching and Learning Technology Digital Content Development Grant, Purdue University, *2005*, **$45,000**
- Grant for Study in a Second Discipline, Office of the Provost, Purdue University, *AY 2004-05*, **$130,000**
- Research Grant (Co-PI with Z. Feng and D. Minchella) from the National Science Foundation (NSF), *July 15, 2003 - July 31, 2007*, **$389,013**
- Curriculum Development Grant from the School of Science, Purdue University, *2002*, **$10,000**
- Academic Reinvestment Program Grant (Jointly for the Graduate Committee of Computational Science and Engineering) from EVPAA for Computational Science and Engineering Educational Program, *May 2001*, **$50,000**
- Research Grant (Co-PI with Z. Feng and D. Minchella) from the National Science Foundation (NSF), *August 15, 1999 - July 31*, 2002, **$221,000**
- Binational Project Research and Travel Grant (with M. Iannelli, Trento) from the Italian National Research Council (CNR), *1997-2000*, **$30,000**
- Curriculum Development Grant from the School of Science, Purdue University, *1996*, **$10,000**
- Binational Research and Travel Grant (with M. Langlais, Bordeaux) from National Science Foundation (NSF) and Conseil National de Recherches Scientifiques (CNRS), Project entitled "Mathematical Modeling of Host-Parasite Systems in Marine Environment," *Apr. 1, 1995-Mar. 31, 1999*, **$16,710 (NSF) + $20,000 (CNRS)**
- Lilly Faculty Open Fellowship, *AY 1994-95*, **$90,000**
- Italian National Research Council (CNR) Research and Travel Grant "Binational Project," (with M. Iannelli, Trento), *1994*
- Purdue Global Initiative Faculty Grant from the Dean of International Programs for "Collaborative Research on Parasite-Host Systems in Marine Environment," *1994*
- Purdue Global Initiative Faculty Grant from the Dean of International Programs for the "Development of a Course on the Mathematical Theory of Population Dynamics and Epidemics," *1994*
- Italian Department of Health Research Grant "Mathematical Modeling of AIDS" (one of many co-PIs), *1989-94*
- Italian National Research Council (CNR) Research Grant "Parallel Computing" (one of many co-PIs), *1989-94*

6.a. COURSES TAUGHT

▪*Geometry 1*, **Spring 1978**, University of Buenos Aires, Argentina.
▪High School Mathematics and Physics, **Spring 1978**, Buenos Aires, Argentina.
▪*Geometry 1*, **Fall 1978**, University of Buenos Aires, Argentina.
▪High School Mathematics and Physics, **Fall 1978**, Buenos Aires, Argentina.
▪MAA 100, *Advanced Arithmetic*, **Fall 1979**, Central Y.M.C.A. Community College, Chicago; Barker-Rogers-Van Dyke, Arithmetic (2nd Edition), Saunders, 1979.
▪MAA 100, *Arithmetic* (in Spanish), **Fall 1979**, Central Y.M.C.A. Community College, Chicago; Barker-Rogers-Van Dyke, Arithmetic (2nd Edition), Saunders, 1979.
▪MAB 100, *Algebra* (in Spanish), **Fall 1979**, Central Y.M.C.A. Community College, Chicago.
▪MAB 100 (2 sections), *Algebra*, **Spring 1980**, Central Y.M.C.A. Community College, Chicago.

▪MTH 161, *Introduction to Finite Mathematics*, **Fall 1981**, Elmhurst College, Logan Square Center, Chicago; Keedy-Bittinger, Essential Mathematics (3rd Edition), Addison Wesley, 1980.
▪MTH 162, *Mathematics for the Social Sciences*, **Fall 1981**, Elmhurst College, Little Village Hispanic Center, Chicago; Mizrahi-Sullivan, Mathematics for Business and Social Sciences: an Applied Approach Approach (2nd Edition), Wiley, 1979.
▪MTH 162, *Mathematics for the Social Sciences*, **Spring 1982**, Elmhurst College, Logan Square Center, Chicago; Mizrahi-Sullivan, Mathematics for Business and Social Sciences: an Applied Approach (2nd Edition), Wiley, 1979.
▪MTH 162, *Mathematics for the Social Sciences*, **Spring 1982**, Elmhurst College, Little Village Hispanic Center, Chicago; Mizrahi-Sullivan, Mathematics for Business and Social Sciences: an Applied Approach (2nd Edition), Wiley, 1979.
▪MATH 102, *Fundamental Mathematics 2*, **Spring 1982**, University of Chicago, Chicago; Sentlowitz-Trevisone, College Algebra and Trigonometry, Addison Wesley, 1981.
▪BMS 126 (2 sections), *Calculus with Applications to Business*, **Fall 1982**, De Paul University, Chicago; Hoffman-Orkin, Mathematics with Applications, McGraw-Hill, 1979.
▪BMS 142, *Statistics I*, **Winter 1983**, De Paul University, Chicago; Sincich, Business Statistics by Example, Dellen, 1982.
▪MAT 151, *Calculus II*, **Winter 1983**, De Paul University, Chicago; Gillett, Calculus and Analytic Geometry, Heath, 1981.
▪BMS 125, *Algebra with Applications to Business*, **Spring 1983**, De Paul University, Chicago; Hoffman-Orkin, Mathematics with Applications, McGraw-Hill, 1979.
▪BMS 142, *Statistics I*, **Spring 1983**, De Paul University, Chicago; Sincich, Business Statistics by Example, Dellen, 1982.
▪BMS 125, *Algebra with Applications to Business*, **Fall 1983**, De Paul University, Chicago; Hoffman-Orkin, Mathematics with Applications, McGraw-Hill, 1979.
▪MA 221, *Calculus for Technology I*, **Fall 1983**, Purdue University, West Lafayette; Washington, Technical Calculus with Analytic Geometry (2nd Edition), Benjamin/Cummings, 1980.
▪MA 362, *Topics in Advanced Calculus*, **Fall 1983**, Purdue University, West Lafayette; Hurley, Multivariate Calculus, Saunders, 1981.
▪MATH 101, *Basic Math*, **Winter 1984**, Chicago State University, Chicago; Silver, Basic Mathematics.
▪MATH 256, Calculus *III*, **Spring 1984**, Chicago State University, Chicago; Mizrahi-Sullivan, Calculus and Analytic Geometry, Wadsworth, 1982.
▪MA 224, *Introductory Analysis II*, **Spring 1984**, Purdue University, West Lafayette; Auvil, Calculus with Applications, Addison-Wesley, 1982.
▪MA 224 (2 sections), *Introductory Analysis II*, **Fall 1984**, Purdue University, West Lafayette; Auvil, Calculus with Applications, Addison-Wesley, 1982.
▪MA 262 (2 sections), *Linear Algebra and Differential Equations*, **Spring 1985**, Purdue University, West Lafayette; Lipschutz, Linear Algebra, Schaum Outline Series, McGraw-Hill, 1968, and Boyce-DiPrima, Elementary Differential Equations and Boundary Value Problems (3rd Edition), Wiley, 1977.
▪MA 511, *Linear Algebra with Applications*, **Summer 1985**, Purdue University, West Lafayette; Noble-Daniel, Applied Linear Algebra (2nd Edition), Prentice Hall, 1977.
▪MA 523, *Introduction to Partial Differential Equations*, **Fall 1985**, Purdue University, West Lafayette; John, Introduction to Partial Differential Equations, Prentice Hall, 1982.
▪MA 262, *Linear Algebra and Differential Equations*, **Fall 1985**, Purdue University, West Lafayette; Lipschutz, Linear Algebra, Schaum Outline Series, McGraw-Hill, 1968, and Boyce-DiPrima, Elementary Differential Equations and Boundary Value Problems (3rd Edition), Wiley, 1977.
▪MA 262 (2 sections), *Linear Algebra and Differential Equations*, **Spring 1986**, Purdue University, West Lafayette; Lipschutz, Linear Algebra, Schaum Outline Series, McGraw-Hill, 1968, and Boyce-DiPrima, Elementary Differential Equations and Boundary Value Problems (3rd Edition), Wiley, 1977.
▪MA 511, *Linear Algebra with Applications*, **Summer 1986**, Purdue University, West Lafayette;
Noble-Daniel, Applied Linear Algebra (2nd Edition), Prentice Hall, 1977.
▪MA 223, *Introductory Analysis I*, **Fall 1986**, Purdue University, West Lafayette; Auvil, Calculus with Applications, Addison-Wesley, 1982.

▪MA 262, *Linear Algebra and Differential Equations*, **Fall 1986**, Purdue University, West Lafayette; Rabenstein, Elementary Differential Equations with Linear Algebra (3rd Edition), Academic Press, 1982.
▪MA 523, *Introduction to Partial Differential Equations*, **Spring 1987**, Purdue University, West Lafayette; Zachmanoglou-Thoe, Introduction to Partial Differential Equations with Applications (2nd Edition), Dover, 1986.
▪MA 262, *Linear Algebra and Differential Equations*, **Spring 1987**, Purdue University, West Lafayette; Rabenstein, Elementary Differential Equations with Linear Algebra (3rd Edition), Academic Press, 1982.
▪MA 262, Linear *Algebra and Differential Equations*, **Summer 1987**, Purdue University, West Lafayette; Rabenstein, Elementary Differential Equations with Linear Algebra (3rd Edition), Academic Press, 1982.
▪MA 511, *Linear Algebra with Applications*, **Fall 1987**, Purdue University, West Lafayette; Noble-Daniel, Applied Linear Algebra (2nd Edition), Prentice Hall, 1977.
▪MA 224, Introductory Analysis II, **Fall 1987**, Purdue University, West Lafayette; Hoffman, Applied Calculus, McGraw-Hill, 1983.
▪MA 262 (2 sections), Linear *Algebra and Differential Equations*, **Spring 1988** (half semester), Purdue University, West Lafayette; Rabenstein, Elementary Differential Equations with Linear Algebra (3rd Edition), Academic Press, 1982.
▪*Calcolo Numerico e Grafico*, **Spring 1988**, IIa Università di Roma, Rome, Italy;
▪MA 262 (2 sections), *Linear Algebra and Differential Equations*, **Fall 1988**, Purdue University, West Lafayette; Rabenstein, Elementary Differential Equations with Linear Algebra (3rd Edition), Academic Press, 1982.
▪MA 262 (2 sections), Linear *Algebra and Differential Equations*, **Spring 1989** (half semester), Purdue University, West Lafayette; Rabenstein, Elementary Differential Equations with Linear Algebra (3rd Edition), Academic Press, 1982.
▪*Calcolo Numerico e Grafico*, **Spring 1989**, IIa Università di Roma, Rome, Italy;
▪MA 523, Introduction to Partial Differential Equations, **Summer 1989**, Purdue University, West Lafayette; Zachmanoglou-Thoe, Introduction to Partial Differential Equations with Applications (2nd Edition), Dover, 1986.
▪*Calcolo Numerico e Grafico*, **Spring 1990**, IIa Università di Roma, Rome, Italy.
▪*Istituzioni di Matematica per Biologia*, **Spring 1990**, IIa Università di Roma, Rome, Italy.
▪MA 262, *Linear Algebra and Differential Equations*, **Summer 1990**, Purdue University, West Lafayette; Rabenstein, Elementary Differential Equations with Linear Algebra (3rd Edition), Academic Press, 1982.
▪MA 262 (2 sections), *Linear Algebra and Differential Equations*, **Fall 1990**, Purdue University, West Lafayette; Rabenstein, Elementary Differential Equations with Linear Algebra (3rd Edition), Academic Press, 1982.
▪MA 611, *Methods of Applied Mathematics I*, **Spring 1991**, Purdue University, West Lafayette; Groetsch, Elements of Applicable Functional Analysis, Decker, 1980.
▪MA 262, *Linear Algebra and Differential Equations*, **Spring 1991**, Purdue University, West Lafayette; Rabenstein, Elementary Differential Equations with Linear Algebra (3rd Edition), Academic Press, 1982.
▪MA 173, *Calculus and Analytic Geometry I*, **Fall 1991**, Purdue University, West Lafayette; Thomas-Finney, Calculus with Analytic Geometry (7th Edition), Addison Wesley, 1988.
▪MA 301, *Topics in Elementary Analysis*, **Fall 1991**, Purdue University, West Lafayette; Price, Notes for MA 301. ***Mathematics Education course for HS teachers.***
▪MA 262, *Linear Algebra and Differential Equations*, **Spring 1992**, Purdue University, West Lafayette; Goode, Introduction to Differential Equations and Linear Algebra, Prentice Hall, 1991.
▪MA 301, *Topics in Elementary Analysis*, **Spring 1992**, Purdue University, West Lafayette; Price, Notes for MA 301. ***Mathematics Education course for HS teachers.***
▪MA 523, *Introduction to Partial Differential Equations*, **Fall 1992**, Purdue University, West Lafayette; Zachmanoglou-Thoe, Introduction to Partial Differential Equations with Applications (2nd Edition), Dover, 1986.
▪MA 304, *Differential Equations Including Analysis of Nonlinear Systems*, **Fall 1992**, Purdue University, West Lafayette; Boyce-DiPrima, Elementary Differential Equations and Boundary Value Problems (5th Edition), Wiley, 1992.

▪MA 262, *Linear Algebra and Differential Equations*, **Spring 1993**, Purdue University, West Lafayette; Goode, Introduction to Differential Equations and Linear Algebra, Prentice Hall, 1991.
▪MA 304, *Differential Equations Including Analysis of Nonlinear Systems*, **Spring 1993**, Purdue University, West Lafayette; Boyce-DiPrima, Elementary Differential Equations and Boundary Value Problems (5th Edition), Wiley, 1992.
▪MA 161, *Plane Analytic Geometry and Calculus I*, **Fall 1993**, Purdue University, West Lafayette; Hunt, Calculus with Analytic Geometry.
▪MA 262, *Linear Algebra and Differential Equations*, **Fall 1993**, Purdue University, West Lafayette; Goode, Introduction to Differential Equations and Linear Algebra, Prentice Hall, 1991.
▪MA 490M, *Mathematics in Industrial Problems*, **Spring 1994**, Purdue University, West Lafayette; Friedman-Littman, Industrial Mathematics for Undergraduates (preliminary edition), SIAM, 1993.
▪MA 223B, *Introductory Analysis I*, **Spring 1995**, Purdue University, West Lafayette; Hoffman, Applied Calculus, McGraw-Hill, 1983.
▪MA 161, *Plane Analytic Geometry and Calculus I*, **Fall 1995**, Purdue University, West Lafayette; Ellis and Gullick, Calculus with Analytic Geometry (5th Edition).
▪MA 261, *Multivariate Calculus*, **Fall 1995**, Purdue University, West Lafayette; Ellis and Gullick, Calculus with Analytic Geometry (5th Edition).
▪MA 161E, *Plane Analytic Geometry and Calculus I*, **Spring 1996**, Purdue University, West Lafayette; Ellis and Gullick, Calculus with Analytic Geometry (5th Edition).
▪MA 161, *Plane Analytic Geometry and Calculus I*, **Spring 1997**, Purdue University, West Lafayette; Ellis and Gullick, Calculus with Analytic Geometry (5th Edition).
▪MA 223B, *Introductory Analysis I*, **Spring 1997**, Purdue University, West Lafayette; Adler, Modeling the Dynamics of Life, Brooks/Cole, 1996.
▪MA 161M, *Plane Analytic Geometry and Calculus I*, **Fall 1997**, Purdue University, West Lafayette; Ellis and Gullick, Calculus with Analytic Geometry (5th Edition).
▪MA 161E, *Plane Analytic Geometry and Calculus I*, **Spring 1998**, Purdue University, West Lafayette; Ellis and Gullick, Calculus with Analytic Geometry (5th Edition).
▪MA 152A, *College Algebra for Liberal Arts*, **Fall 1998**, Purdue University, West Lafayette; Excursions in Modern Mathematics (Third Edition), Prentice Hall, 1998.
▪MA 152A, *College Algebra for Liberal Arts*, **Spring 1999**, Purdue University, West Lafayette; Excursions in Modern Mathematics (Third Edition), Prentice Hall, 1998.
▪MA 523, *Introduction to Partial Differential Equations*, **Spring 1999**, Purdue University, West Lafayette; John, Introduction to Partial Differential Equations, Prentice Hall, 1982.
▪MA 490T, *Algebra for High School Teachers*, **Fall 1999**, Purdue University, West Lafayette. ***In-Service course on methods.***
▪MA 511, *Linear Algebra with Applications*, **Fall 1999**, Purdue University, West Lafayette; Strang, Linear Algebra and Its Applications (Third Edition), Harcourt Brace Jovanovich, 1988.
▪MA 161E, *Plane Analytic Geometry and Calculus I*, **Spring 2000**, Purdue University, West Lafayette; Ellis and Gullick, Calculus with Analytic Geometry (5th Edition).
▪MA 161E, *Plane Analytic Geometry and Calculus I*, **Fall 2000**, Purdue University, West Lafayette; Stewart, Calculus, Early Transcendentals (4th Edition).
▪MA 511, *Linear Algebra with Applications*, **Fall 2000**, Purdue University, West Lafayette; Strang, Linear Algebra and Its Applications Third Edition), Harcourt Brace Jovanovich, 1988.
▪MA 161E, *Plane Analytic Geometry and Calculus I*, **Spring 2001**, Purdue University, West Lafayette; Stewart, Calculus, Early Transcendentals (4th Edition).
▪MA 161E, Plane *Analytic Geometry and Calculus I*, **Fall 2001**, Purdue University, West Lafayette; Stewart, Calculus, Early Transcendentals (4th Edition).
▪MA 511, *Linear Algebra with Applications*, **Fall 2001**, Purdue University, West Lafayette; Strang, Linear Algebra and Its Applications (Third Edition), Harcourt Brace Jovanovich, 1988.
▪MA 161E, *Plane Analytic Geometry and Calculus I*, **Spring 2002**, Purdue University, West Lafayette; Stewart, Calculus, Early Transcendentals (4th Edition).
▪MA 511, *Linear Algebra with Applications*, **Fall 2002**, Purdue University, West Lafayette; Strang, Linear Algebra and Its Applications (Third Edition), Harcourt Brace Jovanovich, 1988.

▪MA 511Q, *Linear Algebra with Applications*, **Fall 2002**, Continuing Engineering Education television course, Purdue University, West Lafayette; Strang, Linear Algebra and Its Applications (Third Edition), Harcourt Brace Jovanovich, 1988.
▪MAT 610, *Numerical Analysis and Partial Differential Equations*, **Spring 2003**, University of Trento, Povo, Italy; John, Partial Differential Equations (Fourth Edition), Springer, 1982.
▪MA 161, *Plane Analytic Geometry and Calculus I*, **Fall 2003**, Purdue University, West Lafayette, Stewart, Calculus, Early Transcendentals (4th Edition).
▪MA 351, *Elementary Linear Algebra*, **Fall 2003**, Purdue University, West Lafayette; Penney, Linear Algebra, Ideas and Applications, Wiley, 1998.
▪MATE 4061, *Numerical Analysis I*, **Spring 2004**, University of Puerto Rico, Mayagüez; Burden and Faires, Numerical Analysis (Seventh Edition), Brooks/Cole, 2001.
▪MATE 6672, *Numerical Analysis II*, **Spring 2004**, University of Puerto Rico, Mayagüez; Isaacson and Keller, Analysis of Numerical Methods, Dover, 1994.
▪MA 161, *Plane Analytic Geometry and Calculus I*, **Fall 2005**, Purdue University, West Lafayette; Stewart, Calculus, Early Transcendentals (5th Edition).
▪MA 490F, *Mathematics in Epidemiology and Immunology*, **Fall 2005**, Purdue University, West Lafayette; Brauer and Castillo-Chávez, Mathematical Models in Population Biology and Epidemiology, Springer, 2001.
▪CS 501, *Introduction to Computational Science*, **Fall 2005**, Purdue University, West Lafayette; Burden and Faires, Numerical Analysis (Seventh Edition), Brooks/Cole, 2001.
▪MA 511, *Linear Algebra with Applications*, **Spring 2006**, Purdue University, West Lafayette; Strang, Linear Algebra and Its Applications (Fourth Edition), Harcourt Brace Jovanovich, 2006.
▪MA 511Q, *Linear Algebra with Applications*, **Spring 2006**, Engineering Professional Education television course, Purdue University, West Lafayette; Strang, Linear Algebra and Its Applications (Fourth Edition), Harcourt Brace Jovanovich, 2006.
▪MA 161, *Plane Analytic Geometry and Calculus I*, **Fall 2006**, Purdue University, West Lafayette; Stewart, Calculus, Early Transcendentals (5th Edition).
▪MA 161, *Plane Analytic Geometry and Calculus I*, **Fall 2007**, Purdue University, West Lafayette; Stewart, Calculus, Early Transcendentals (6th Edition).
▪MAT 275 (Honors), *Modern Differential Equations*, **Fall 2008**, Arizona State University, Tempe; Edwards and Penney, Differential Equations: Computing and Modeling, (4th Edition, 2008).
▪MAT 275, *Modern Differential Equations*, **Fall 2009**, Arizona State University, Tempe; Edwards and Penney, Differential Equations: Computing and Modeling, Custom Edition for ASU.
▪MAT 275, *Modern Differential Equations*, **Fall 2010**, Arizona State University, Tempe; Edwards and Penney, Differential Equations: Computing and Modeling, Custom Edition for ASU.
▪MAT 275, *Modern Differential Equations*, **Fall 2011**, Arizona State University, Tempe; Edwards and Penney, Differential Equations: Computing and Modeling, Custom Edition for ASU.
▪MAT 310, Introduction to *Geometry*, **Fall 2012**, Arizona State University, Tempe; Stahl, Geometry from Euclid to Knots.
▪MAT 275 (Honors), *Modern Differential Equations*, **Fall 2013**, Arizona State University, Tempe; Boyce and DiPrima, *Elementary Differential Equations* (10th Edition, 2012).
▪MAT 519H, *Mathematics for Life Sciences*, **Fall 2014**, University of Trento, Povo, Italy; Iannelli and Pugliese, *Elementary Differential Equations* (1st Edition, 2014).
▪MAT 271, *Calculus II*, **Spring 2015**, Arizona State University, Tempe; Briggs, Cochran, Gillett, Calculus, Early Transcendentals, (2nd Edition, 2013).
▪MAT 343, *Applied Linear Algebra*, **Spring 2016**, Arizona State University, Tempe; Leon, Linear Algebra with Applications, (9th Edition, 2015).
▪MAT 421, *Applied Computational Methods*, **Spring 2016**, Arizona State University, Tempe.
▪APM 535, *Mathematics in Medicine*, **Spring 2017**, Arizona State University, Tempe.
▪APM 533, *Mathematical Population Biology*, **Fall 2017**, Arizona State University, Tempe; Iannelli and Milner, Age-Structured Populations: An Introduction to the Mathematical Models and Methods, Springer: London, July 2017.

▪APM 501, *Differential Equations*, **Fall 2018**, Arizona State University, Tempe; Perko, Differential Equations and Dynamical Systems (3rd edition, 2018).
▪MAT 265x, *Calculus I for Engineers*, **Fall 2019**, Arizona State University Earned Admission, Tempe.
▪APM 501, *Differential Equations*, **Fall 2019**, Arizona State University, Tempe; Perko, Differential Equations and Dynamical Systems (3rd edition, 2018).
▪MAT 265x, *Calculus I for Engineers*, **Spring 2020**, Arizona State University Earned Admission, Tempe.
▪MAT 265x, *Calculus I for Engineers*, **Fall 2020**, Arizona State University Earned Admission, Tempe.
▪APM 534, *Population Biolgy 2*, **Spring 2021**, Arizona State University, Tempe; Iannelli and Milner, The Basic Approach to Age-Structured Population Dynamics (Springer, New York, 2017).

6.b. DOCTORAL STUDENTS ADVISED (as Committee Chair)

Purdue:
•Yonghoon Kwon, PhD 1986. Professor at Pohang Institute of Science and Technology, Pohang, Korea.
•Mi-Young Kim, PhD 1993. Professor at Inha University, Incheon, Korea.
•Eun-Jae Park, PhD 1993. Professor at Yonsei University, Seoul, Korea.
•Miyoung Lee, PhD 1995. Professor at Konkuk University, Seoul, Korea.
•Youngjoon Cha, PhD 1996. Professor at Sejong University, Seoul, Korea.
•Quanzhu Duan, withdrew ABD in 1997. Staff Engineer at Qualcomm, San Francisco, CA.
•Curtis A. Patton, PhD 1998. Developer at Epic Systems Corporation, Madison, WI.
•Maia Martcheva, PhD 1998. Professor at University of Florida, Gainesville, FL.
•Guglielmo Rabbiolo, PhD 1998. Chrysler Corporation, Auburn Hills, MI; deceased June 2004.
•Lih-Ing Wu (with Z. Feng), PhD 2000. Actuary at Jackson National Insurance, Lansing, MI.
•Cheng-che Li (with Z. Feng), PhD 2002. Associate Professor at St. John's and St. Mary's Institute of Technology, Taipei, Taiwan.
•Mark Ward (with W. Szpankowski). PhD 2005. Associate Professor at Purdue University, West Lafayette, IN.
•Elisabetta Ferrando (with G. Harel), PhD 2005. Assistant Professor at University of Genova, Italy.
•Daniel Maxin. PhD 2007. Associate Professor at Valparaiso University, IN.
•Ruijun Zhao. PhD 2008. Professor at University of Minnesota At Mankato, MN.
•Kai Yang. PhD 2008. Senior Staff Solutions Architect at E2open, Chengdu, Sichuan, China.
•David Gerberry, PhD 2009. Associate Professor at Xavier University, Cincinnati, OH.
•Laurentiu Sega, PhD 2011. Associate Professor at Augusta University, GA.
ASU:
•Robert Álvarez, ASU PhD 2014. Field Engineer/Data Scientist at Tamr, Inc., San Francisco, CA.
•Michael Lin, PhD 2021.
•Amanda Riske (with Steven Zuicker), MLFTC PhD student.
•Marina Mancuso, SoMSS PhD student.

6.c. CURRICULUM DEVELOPMENT ACTIVITIES

Purdue:

MATH 490M: Mathematics in Industrial Problems	1994
MATH 598A: Modeling Population Dynamics and Epidemics	1995
MATH 223B: Calculus for biology students. Paired with BIOL 131A	1995
MATH 152A: Mathematics in Liberal Arts	1998
MATH 159: Precalculus	2000

ASU:

MTE 280: Investigating Quantity: Number, Operations & Numeration Systems	2009-13
MTE 281: Investigating Space: Geometry, Measurement & Visualization	2009-13
MTE 301: Investigating Change: Patterns, Functions & Modeling	2009-13
MAT 207: Algebra and Geometry in the High School	2010
MAT 208: Discrete Mathematics	2010

MAT 110: Enhanced Freshman Mathematics	2010-11
MAT 142: College Mathematics	2010-11
MAT 210-211: Business Calculus I-II (redesign)	2013
MAT 270-271: Calculus and Analytic Geometry I & II (redesign)	2015-19
Design and Implementation of ALEKS PPL Math Placement Test	2016-17
MAT 117: College Algebra	2016-17
MAT 210x: Brief Calculus for Global Freshman Academy, Chair	2017-18
MAT 265x: Calculus for Engineers for Global Freshman Academy, Chair	2017-19

7.a. FELLOWSHIPS AND OTHER RECOGNITIONS

- Nominated by Provost to National Science Foundation Directorate and Office Advisory Committee for STEM Education 2021
- Nominated to Governing Board of US Department of Education 2019
- Digital Learning Innovation Award (MAT 117 team, $100,000), Online Learning Consortium 2018
- Nominated as Outstanding Faculty Mentor, Faculty Women's Association, ASU 2016
- Nominated as Outstanding Faculty Mentor, Faculty Women's Association, ASU 2015
- Pearl Award, Girl Scouts of America 2013
- President's Medal for Social Embeddedness, ASU 2012
- Leadership Development Fellow, Office of the Provost, ASU 2010
- Listed in Who's Who in America (60th Edition) 2006
- Listed in 2000 Outstanding Intellectuals of the 21st Century (1st Edition) 2002
- Listed in Who's Who in America (56th Edition) 2002
- Listed in Who's Who in Science and Engineering (6th Edition) 2002
- Fellow of the World Innovation Foundation 2001-
- Listed in Who's Who in the World 2001-03
- Offered AAAS Fellowship (declined). 1999
- Prize to best paper of the "Seventh International Congress on Biomathematics" 1996
- Andrew Fellow, University of Chicago 1980-83
- College Fellow, University of Chicago 1979-80
- Meyer Prize to best Master's exam, University of Chicago 1979
- Fulbright Fellow 1977-79
- Goethe Institute Grant, (to study in Göttingen) 1976

7.b. PROFESSIONAL MEMBERSHIPS

- American Mathematical Society (AMS) Life Member
- Society for Industrial and Applied Mathematics (SIAM) Life Member
- Society for Mathematical Biology Life Member
- Mathematical Association of America (MAA) Life Member
- Society for Advancement of Chicanos & Native Americans in Science (SACNAS) Life Member
- National Council of Teachers of Mathematics (NCTM) 2008-
- Argentine Mathematical Union (UMA) 2004-
- International Biometric Society 2012-2014
- United States Association for Computational Mechanics 2015
- Argentine Ecological Society 2001-06
- Society of Hispanic Professional Engineers (SHPE) 2000-03
- Latin-American Association of Biomathematics (ALAB) 1996-2001
- Italian Mathematical Union 1988-91

8. CONTRIBUTIONS TO ACADEMIC FIELD

a. Editorial Work:

- Guest editor of *Mathematical Biosciences*' special issues for DESTOBIO, 1997-98.
- Guest Editor of *Mathematical Biosciences*' special issues for DESTOBIO 2000, 2001-02.
- Associate Editor for the Mathematics Journal of the Research Center in Pure and Applied Mathematics of the University of Costa Rica, 2003-2008.
- Guest editor of *Mathematical Population Studies'* special issues for CMPD, 2004-06.
- Guest editor of *Journal of Theoretical Biology*'s special issue for CMPD2, 2007-2009.
- Guest editor of *Mathematical Population Studies*' special issue for CMPD2, 2007-2009.
- Guest editor of *Mathematical Population Studies*' special issue for CMPD3, 2010-2011.
- Advisory Board of *Mathematical Population Studies*, 2011-2013.
- Guest editor of *Mathematical Modeling of Natural Phenomena*'s special issue on Epidemiology, 2011-2012.
- Guest editor of *Mathematical Modeling of Natural Phenomena*'s special issue on Epidemics on Networks, 2011-2012.
- Guest editor of *Journal of Biological Dynamics*'s special issue for MIMMO-BIO, 2011-2013.
- Guest editor of *Mathematical Population Studies*' special issue for MIMMO-BIO, 2011-2015.
- Editorial Board of *Journal of Mathematics*, 2012.
- Associate Editor of *Mathematical Population Studies*, 2013-present.
- Guest Editor of *Mathematical Biosciences and Engineering* special issue on HIV/AIDS, 2020-21.

b. Journal Review:

- SIAM Journal of Numerical Analysis
- Mathematical Biosciences
- Journal of Mathematical Analysis and Applications
- Numerical Methods for Partial Differential Equations
- IMA Journal of Applied Mathematics
- Mathematics of Computation
- Mathematics and Computer Modeling
- Journal of Computational and Applied Mathematics
- Applied Mathematics Letter
- Bulletin of Mathematical Biology
- Journal of Mathematical Biology
- Mathematica Aplicada e Computacional
- Mathematical Biosciences and Engineering
- Mathematical Methods in the Applied Sciences
- Mathematical Modeling of Natural Phenomena

c. Review Boards:

- National Science Foundation (panelist 2007, 2008, 2009, 2010 (2 panels), 2011, 2012 (2 panels), 2013, 2015, 2017).
- Conseil National de Recherches Scientifiques (CNRS), the French National Science Foundation (1995, 1997).
- Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), the Argentinian National Science Foundation (1987-1995).

- Consiglio Nazionale delle Ricerche (CNR), the Italian National Science Foundation (1990-2000).

d. Conference Presentations (one hour, unless otherwise noted)

2020-

- Invited Lecture, Special Session "Modeling and Computation for Control and Optimization of Biological and Physical Systems", MCA 2021 (Mathematical Congress of The Americas), Internet, July 2021. (30 minutes)
- Invited Workshop, PME-NA 12 – Across Cultures, Mazatlán, Mexico, October 2020 (postponed to May-June 2021).
- Invited Panelist in the *II Mathematics Education Symposium – Virtual*, Universidad de Luján, Argentina, May 2021.
- Contributed Lecture *A model for acute myeloid leukemia (AML)*, in Oncology mini-symposium, The Virtual SMB 2020 Annual Meeting, Internet, August 2020. (20 minutes)
- Invited Panelist in *Mathematical Sciences Graduate Programs,* Mathematical Biosciences Institute (MBI), August 2020.
- Contributed Workshop, NCTM Centennial Annual Meeting**:** Celebrating 100 Years – Looking Back and Moving Forward, Chicago, Illinois, April 2020. CONFERENCE CANCELED DUE TO COVID-19.
- Invited Colloquium *A model for acute myeloid leukemia (AML)*, Purdue University, West Lafayette, IN, March 2020.
- Invited Lecture *Diferencias didácticas entre el cálculo y el análisis matemático* (*Didactic differences between calculus and mathematical analysis*), 30 Semana Nacional de Investigación y Docencia de la Matemática, Hermosillo, Mexico, March 2020. (30 minutes)
- Invited Workshop (with P. Thompson) *El Cálculo del Proyecto DIRACC* (*Calculus in the DIRACC Project*), 30 Semana Nacional de Investigación y Docencia de la Matemática, Hermosillo, Mexico, March 2020. (8 hours)
- Contributed Lecture *A model for acute myeloid leukemia (AML)*, in Special Session "Mathematical Epidemiology / Physiological Models," 11th Conference on Dynamical Systems Applied to Biology and Natural Sciences, Trento, Italy, February 2020. (30 minutes)

2015-2019

- Invited Lecture, Special Session "Modeling Infection Dynamics Across the Scales", Fifth Conference on Computational and Mathematical Population Dynamics (CMPD5)**,** Fort Lauderdale Beach, Florida, May 2019.
- Invited Lecture *A Structured population model with diffusion in structure space*, in Special Session "Epidemiology, vaccine & intervention strategies," SMB Annual Meeting, Sydney, Australia, July 2018. (30 minutes)
- Invited Lecture *Structured population model with diffusion in structure space*, Summer Symposium in Real Analysis XLII, Sankt-Peterburg, Russia, June 2018.
- Invited Poster in Special Session "NSF Division of Undergraduate Education Awards in the Mathematical Sciences," Joint Mathematics Meeting, San Diego, CA, January 2018.
- Invited Lecture in Special Session "Optimal treatment schedule for a vineyard pest," Joint Mathematics Meeting, San Diego, CA, January 2018. (30 minutes)
- Invited Lecture *Structured population model with diffusion in structure space*, ICMA VI, University of Arizona, Tucson, AZ, October 2017. (30 minutes)
- Plenary Speaker "The Mathematics of Sex, Marriage and Disease," CeSMUR 2017, Kansas State University, Manhattan, KS, April 2017.
- Panelist *Natural Sciences Careers,* Arizona State University, Tempe, AZ, October 2016.
- Panelist in Professional Development Session *What do I do with my Bachelor's?* SACNAS Annual Meeting, Long Beach, CA, October 2016.
- Moderator and Invited Panelist *Success in Graduate Programs,* Mathematical Biosciences Institute (MBI), August 2016.

- Plenary Speaker in the Mini-Symposium "Advances in Modeling and Simulation of Population Dynamics and Tumor Growth," 12th World Congress on Computational Mechanics, Seoul, South Korea, July 2016. (30 minutes)
- Invited Lecture *Parameter Distribution in Prostate Cancer Models*, in Special Session "Models for Treatment of Prostate Cancer," 11th AIMS Conference on Dynamical Systems and Differential Equations, Orlando, Florida, July 2016.
- Invited Lecture *Control Strategies for TB Epidemics*, MathCompEpi 2015 Conference, Erice, Italy, August 2015. (30 minutes)
- Moderator and Invited Panelist *Success in Graduate Programs,* Mathematical Biosciences Institute (MBI), August 2015.
- Keynote Speaker *A two-strain spatio-temporal mathematical model of tumor growth*, at V MACI, the Vth Conference of Applied, Computational and Industrial Mathematics, Tandil, Argentina, May 2015.
- Keynote Speaker *A two-strain spatio-temporal mathematical model of tumor growth*, at PANACM 2015, the 1st Pan-American Congress on Computational Mechanics, Buenos Aires, Argentina, April 2015.
- Chair of Mini-symposium *Free Boundary Problems: Theory, Numerical Analysis and Applications*, at PANACM 2015, the 1st Pan-American Congress on Computational Mechanics, Buenos Aires, Argentina, April 2015.

2010-2014

- Invited mini-course lecturer on Delay Differential Equations, Linnaeus University, Växjö, Sweden, October 6-10, 2014 (10 hours).
- Moderator and Invited Panelist *Success in Graduate Programs,* Mathematical Biosciences Institute (MBI), August 2014.
- Plenary speaker *Attending to Diversity and Equity in the Recruitment and Preparation of K-12teachers of Mathematics*, Workshop Critical Issues in Mathematics Education 2014: The role of the mathematics department in the mathematical preparation of teachers, MSRI, Berkeley, CA, April 2014.
- Invited Speaker, *Math Education: Different paths to it and through it, and careers in Mathematics*, Southwestern Undergraduate Mathematics Research Conference (SUnMaRC), Mesa Community College, Mesa, Arizona, March 2014.
- Invited presentation *Fun with a pan (or two): How can we use a two-pan balance to identify a counterfeit?* Arizona Science Center, Phoenix, December 2013.
- Invited Lecture *Immunological Models of Epidemics,* SACNAS Annual Meeting, San Antonio, TX, October 2013.
- Invited Panelist *Success in Graduate Programs,* Mathematical Biosciences Institute (MBI), August 2013.
- Invited Speaker *Immunological Models of Epidemics,* IV Applied & Computational Mathematics Congress (IV MACI), Buenos Aires, Argentina, May 2013.
- Plenary Speaker *Immunological Models of epidemics,* VIIth Italo-Latinamerican Congress of Applied and Industrial Mathematics (VII ITLA 2012), Rosario, Argentina, December 2012.
- Invited Speaker *Could Changes in National Tuberculosis Vaccination Policies be Ill-Informed?* International Biometric Conference, Kobe, Japan, August 2012.
- Invited Speaker *Integrating Immunological and Epidemiological Models,* XIV International Conference Devoted to the memory of Academician Mychailo Kravchuk, Kyev, Ukraine, April 2012.
- Keynote Speaker *The Logistic, Two-Sex, Age-Structured Population Model,* Workshop MIMMO-BIO, University of Trento, Italy, December 2011.
- Invited Speaker *National Board Certification by NBPTS,* NCTM Regional Meeting, Albuquerque, New Mexico, November 2011.
- Invited Speaker *Integrating Immunological and Epidemiological Models,* Scientific Days 2011, University of French Guiana and the Antilles, Guadeloupe, October 2011.

- Invited Speaker *Integrating Immunological and Epidemiological Models,* School on Emerging Infectious Diseases and Mathematical Modelling, CRM, Barcelona, Spain, July 2011.
- Invited Speaker *A Data-Based Model for Tuberculosis: Who Should Be Vaccinating?* SIAM Applied Mathematics Congress, Bahia Blanca, Argentina, May 2011.
- Invited Session Speaker at the 3rd Conference on Computational and Mathematical Population Dynamics (CMPD3), University of Bordeaux, France, May-June 2010 (30 minutes).
- Plenary Speaker at the 3rd Conference on Computational and Mathematical Population Dynamics (CMPD3), University of Bordeaux, France, May-June 2010.

2005-2009

- Invited Speaker at the White Workshop on Mathematical Biology, University of Trento, Italy, December 2009 (30 minutes).
- Invited Speaker at the Session on "Biomedical Applications: Patient-Specific Modelling and Simulation" at the 18th IMACS Congress MODSIM 09, Cairns, Australia, July 2009 (30 minutes).
- Invited Speaker at the Minisymposium on "Delay Differential Equation Models in Medicine" at the SMB-CSMB Joint Conference 2009**,** Hangzhou, China, June 2009 (30 minutes).
- Plenary Speaker at the Workshop on Analysis and Numerics of Population Dynamics and Epidemics Models, Udine, Italy, December 2008.
- Invited Speaker at the Conference on Differential Equations and Applications in Ecology and Epidemiology, West Lafayette, IN, USA, December 2008 (30 minutes).
- Invited Speaker at the Minisymposium on "Mathematical Models for the Spread of Infectious Disease," at the ECCOMAS 2008**,** Venice, Italy, July 2008 (30 minutes).
- Invited Speaker at the Special Session on "Evolution Dynamics in Ecology and Epidemiology," at the 7th AIMS International Conference on Dyn. Systems, Diff. Equations and Applications**,** Arlington, TX, USA, May 2008 (30 minutes).
- Invited Speaker at the Special Session on "Some Mathematical Problems in Biology, from Macromolecules to Ecosystems," at the AMS 2008 Spring Central Sectional, Bloomington, USA, April 2008 (30 minutes).
- Invited Speaker at the Conference in Honor of Jim Cushing's 65th Birthday, University of Arizona, Tucson, USA, October 2007 (30 min).
- Panelist in Forum *When in the classroom, do we teach mathematics the way we do mathematics?* Annual Meeting of the Argentinian Mathematical Union (UMA), Cordoba, Argentina, September 2007.
- Invited Lecture *Does it matter what we teach in the classroom?* presented at the Annual Meeting of the Argentinian Mathematical Union (UMA), Cordoba, Argentina, September 2007.
- Invited Lecturer and Session Chairman at MUA07, Mathematics Today for Man and the Environment, Montecatini Terme, Italy, March 2007 (30 min).
- Invited Speaker and Session Chairman at ECMTB 5, joint meeting of the European Society for Mathematical and Theoretical Biology and the Society for Mathematical Biology, Dresden, Germany, July 2005 (30 minutes).
- Invited Speaker at the Workshop on Modeling the Rapid Evolution of Infectious Diseases, London, Canada, May 2005.
- Invited Speaker in the special session on "Extinction, Periodicity, and Chaos in Population and Epidemic Models" at the AMS 2005 Spring Eastern Sectional, Lubbock, USA, April 2005 (30 minutes).
- Invited Speaker in the special session on "Mathematical Biology" at the Primer Congreso Conjunto de Matemáticas RSME-SCM-SEIO-SEMA, Valencia, Spain, February 2005 (30 min).

2000-2004

- Opening Keynote Speaker at the Applied Mathematics Forum, Gyeongju, South Korea, August 2004.
- Closing Keynote Speaker at the Com2Mac Workshop on Mathematical Biology and Numerical Analysis, Gyeongju, South Korea, August 2004.

- Opening Keynote Speaker at the Com2Mac Workshop on Mathematical Biology and Numerical Analysis, Gyeongju, South Korea, August 2004.
- Invited Speaker at the Fifth World Congress of Nonlinear Analysts (WCNA), Orlando, USA, July 2004.
- Invited Speaker at the "Conference on Computational and Mathematical Population Dynamics," joint meeting of the 7th Conference on Mathematical Population Dynamics (MPD) and the 3rd Conference on Deterministic and Stochastic Models for Biological Interactions (DeStoBio), Trento, Italy, June 2004 (30 minutes).
- Invited Speaker in the special session on "Continuous Distributed Parameters Models in Mathematical Biology" at the Sixth International Joint Meeting of the AMS and the Sociedad Matemática Mexicana, Houston, USA, May 2004 (30 minutes).
- Panelist for the American Diploma Project: "Making The High School Diploma Count." Washington, USA, June 2003.
- Invited Speaker at the "Segundo Encuentro Ítalo-Argentino de Matemática Pura y Aplicada," Buenos Aires, Argentina, December 2002.
- Panelist for the "American Diploma Project: Calibrating the Indiana School Standards, Indianapolis, USA, September 2002.
- Symposium "Functional Differential Equations: Analytical and Numerical Methods for
- Invited Speaker in the special session "Biological Applications of Dynamical Systems" at the AMS Central Section Meeting, Ann Arbor, USA, March 2002 (30 minutes).
- Invited mini-course Lecturer *Modeling Population Dynamics and Epidemics*, presented at the University of Palermo, Buenos Aires, Argentina, July 2001 (10 hours).
- Invited Speaker at the Symposium on Host-Parasitoid Interactions in the 1st Binational Ecological Meeting (Argentina-Chile), Bariloche, Argentina, April 2001 (40 minutes).
- Invited lecturer at the Workshop on "Mixed Finite Element Methods and Applications," Oberwolfach, Germany, February 2001.
- Invited Speaker at the 2000 SIAM Annual Meeting, Riomar, Puerto Rico, July 2000 (30 minutes).

1995-1999

- Invited Participant at the IMA Workshop on Mathematical Approaches for Emerging and Reemerging Infectious Disease, Minneapolis, Minnesota, USA, May 1999.
- Plenary Speaker at the Congress Alacalá 1st International Conference on Mathematical Ecology, AICME '98, Alacalá de Henares, Spain, September 1998.
- Plenary Speaker at the International Workshop on Spatially Heterogeneous Problems in Ecology and Epidemiology: Mathematical Models vs. Polluted Environment Data, Zakopane, Poland, June 1998 (30 minutes).
- Invited Plenary Speaker at the UNESCO International Meeting on Training and Pedagogical Improvement in the Thematic Areas, La Plata, Argentina, April 1998.
- Plenary Speaker and Session Chairman at the Congress Deterministic and Stochastic Aspects of the Modeling of Biointeraction, DESTOBIO '97, Sofia, Bulgaria, August 1997.
- Invited Speaker in the Special Session on Numerical Methods for Age-Structured Population Models, DESTOBIO '97, Sofia, Bulgaria, August 1997.
- Invited Speaker in the Special Session on Epidemiological Models, International Conference on Mathematical Models in Medical and Health Sciences, Vanderbilt University, Nashville, Tennessee, USA, May 1997 (30 minutes).
- Invited Speaker at the Italo-Latinamerican Conference on Applied and Industrial Mathematics ITLA '97, Rome, Italy, January 1997.
- Invited Speaker at the VIIth International Congress on Biomathematics, Buenos Aires, Argentina, October 1995 (30 minutes).
- Invited Speaker at the Annual Meeting of the Society for Mathematical Biology, Oaxtepec, Mexico, May 1995 (30 minutes).
- Invited Speaker at the IVth International Conference on Mathematical Population Dynamics, Houston, USA, May 1995 (30 minutes).

1990-1994

- Invited lecturer at the Workshop on "Mathematical Models for Infectious Diseases," Oberwolfach, Germany, November-December 1994.
- Invited Lecturer at the ICMI-China Regional Conference on Mathematics Education, Shanghai, China, August 1994 (30 minutes).
- Invited Lecturer at the Special IMA Workshop "Designing A Course in Industrial Mathematics for Undergraduates," IMA, Minneapolis, June 1994.
- Invited Lecturer at International Conference on Differential Equations and Applications to Biology and Industry, Claremont, USA, June 1994 (30 minutes).
- Invited Speaker at the 3rd International Conference on Mathematical Population Dynamics, Pau, France, June 1992 (30 minutes).
- Invited Speaker at the Congress on Numerical Analysis, Royan, France, May 1991 (30 minutes).
- Main Invited Speaker at the Semester "Numerical Analysis and Mathematical Modeling," Banach International Mathematical Center, Warsaw, Poland, May 1991.
- Invited lecturer at the "Workshop on Mathematical Modeling of Epidemics," Erice, Italy, March 1991.
- Invited lecturer at the International Conference on Differential Equations and Applications to Biology and Population Dynamics, Claremont, CA, January 1990 (30 minutes).

1985-1989

- Invited lecturer and Section Chairman at the Summer School on *Monte Carlo Methods and Parallel Algorithms*, Primorsko, Bulgaria, September 1989 (30 minutes).
- Invited section lecturer at the *Conference on Numerical Methods and Applications*, Bulgarian Academy of Sciences, Varna, Bulgaria, August 1989 (30 minutes).
- Invited lecturer and Section Chairman at *Equadiff VII*, Prague, Czechoslovakia, August 1989 (30 minutes).
- Invited section lecturer "Numerical Methods for Models of Population Dynamics," and Section Chairman, International Conference on Numerical Methods and Applications, Bulgarian Academy of Science, Sofia Bulgaria, August 1988 (30 minutes).
- Invited mini-course Lecturer on Mixed Finite Element Methods, PEMA/INTEC, Santa Fe, Argentina, August 1985 (20 hours).

e. Recent Workshops and Congresses Attended

- Virtual VIII MACI, La Plata, Argentina, May 2021.
- Council of Graduate Schools Annual Meeting, online, December 2020.
- Virtual Math Alliance Field of Dreams conference, online, November 2020
- Virtual Math Alliance REU Fair, online, October 2020
- Virtual Math Alliance Graduate Fair, online, October 2020
- Virtual SACNAS Annual Meeting, online, October 2020.
- Council of Graduate Schools Annual Meeting, Nashville, TN, December 2019.
- National Math Alliance Field of Dreams Conference, St, Louis, MO, November 2019.
- SACNAS Annual Meeting, Honolulu, HI, October-November 2019.
- Career Paths in the Mathematical Sciences: An IMA / Math Alliance Workshop, Minneapolis, MN, June 2019.
- Joint Mathematics Meetings, Baltimore, MD, January 2019.
- Council of Graduate Schools Annual Meeting, Washington, DC, December 2018.
- Joint Mathematics Meetings, San Diego, CA, January 2018.
- Arizona Mathematics Placement Conference and Workshop, Flagstaff, AZ, February 2017.
- SACNAS Annual Meeting, Long Beach, CA, October 2016.
- Institutional Partners Meeting, IMA, Minneapolis, MN, June 2016.
- National Math Alliance Field of Dreams Conference, Mesa, AZ, November 2015.

- SACNAS Annual Meeting, National Harbor, MD, October 2015.
- Institutional Partners Meeting, IMA, Minneapolis, MN, April 2015.
- Institutional Partners Meeting, MBI, Columbus, OH, February 2015.
- National Math Alliance Field of Dreams Conference, Mesa, AZ, November 2014.
- Institutional Partners Meeting, MBI, Columbus, OH, February 2014.
- National Math Alliance Field of Dreams Conference, Mesa, AZ, November 2013.
- SACNAS Annual Meeting, San Antonio, TX, October 2013.
- SMB Annual Meeting, Tempe, AZ, June 2013.
- Institutional Partners Meeting, MBI, Columbus, OH, February 2013.
- SACNAS Annual Meeting, Seattle, WA, October 2012.
- ENAR Diversity Workshop, Washington, DC, May 2012.
- Institutional Partners Meeting, MBI, Columbus, OH, February 2012.
- SACNAS Annual Meeting, San José, CA, October 2011.
- Institutional Partners Meeting, MBI, Columbus, OH, October 2010.
- SACNAS Annual Meeting, Anaheim, CA, October 2010.
- NCTM Annual Meeting, Indianapolis, IN, April 2010.
- Engineering Grand Challenges Meeting, Phoenix, AZ, April 2010.
- Institutional Partners Meeting, MBI, Columbus, OH, October 2009.
- Workshop on Finding and Keeping Graduate Students in the Mathematical Sciences, AIM, Palo Alto, CA, August 2009.
- 24th IFIP TC7 Conference on System Modelling and Optimization, Buenos Aires, Argentina, July 2009.
- Conference Mitigating the Spread of A/H1N1 Flu: Lessons Learned from Past Outbreaks, Tempe, AZ, June 2009.
- Workshop on Precalculus Curriculum Reform, Tempe, AZ, May 2009.
- Joint Mathematics Meetings, Washington, DC, January 2009.
- Promoting Diversity at the Graduate Level in Mathematics: a National Forum, MSRI, Berkeley, CA, October 2008.

f. Consultancies Undertaken

- ACT (American College Test), Mathematics Assessment and Learning, August 2018.
- Education Development Center, *Transition to Algebra* Advisory Board, Boston, MA, May 2017-July 2019.
- AZ Department of Education. Technical Reviewer of Arizona College and Career Readiness Standards for K-12, Phoenix, AZ, December 2016.
- Center for the Future of Arizona & Science Foundation Arizona, STEM Diploma Project Advisory, Phoenix, AZ, 2013-2015.
- Achieve, Inc., CCSS-DLS-ESS Alignment Committee, Washington, DC, February-June 2012.
- U. of Kentucky, Curriculum Analysis Tool Development (alignment with CCSS), CCSSO, October 2010-June 2011.
- Achieve, Inc., GED Revision/Alignment Committee, Washington, DC, April 2010-March 2011.
- U. of Arizona, Mapping the Calculus Curriculum Workshop II, March 2010.
- Achieve, Inc., Mathematics Pathways: HS Course Development, Washington, DC, January-May 2010.
- Achieve, Inc., ADP Pre-Standard Setting, Washington, DC, July 2009.
- Achieve, Inc., ADP Standards Revision, Washington, DC, Mar.ch 2009.
- U. of Arizona, Mapping the Calculus Curriculum Workshop I, April 2009.
- Achieve, Inc., Benchmark of AL Mathematics High School Standards, Washington, DC, January 2009.
- Achieve, Inc., Planning ADP Standards Revision, Washington, DC, June 2008.

- Achieve, Inc., Benchmark of HI Mathematics High School Standards, Washington, DC, January 2008.
- Achieve, Inc./Pearson, Algebra II End-of-Course Exam Data Review, Washington, DC, January 2008.
- Achieve, Inc., Benchmark of VA Mathematics High School Standards, Washington, DC, December 2007.
- Achieve, Inc., Benchmark of ID Mathematics High School Standards, Washington, DC, October 2007.
- Achieve, Inc./Pearson, Algebra II End-of-Course Rangefinding, Philadelphia, PA, October 2007.
- Achieve, Inc./Pearson, Algebra II End-of-Course Item Review, Washington, DC, August 2007.
- NASH/Education Trust, Impact of Remedial Work on Success, Minneapolis, MN, July 2007.
- Achieve, Inc., Benchmark of AZ Mathematics High School Standards, Washington, DC, July 2007.
- Achieve, Inc./Pearson, Algebra II End-of-Course Assessment Item Review, Atlanta, GA, April-May 2007.
- NASH/Education Trust, Mathematics Success Project , Atlanta, GA, February 2007.
- Achieve, Inc., HS Integrated Mathematics Course Review, Washington, DC, November 2006.
- Dana Center, High School Mathematics High Instructional Tasks, Austin, TX, September 2006.
- Achieve, Inc., High School Mathematics Course Sequencing, Austin, TX, September 2006.
- Achieve, Inc., Benchmark of OK Mathematics High School Standards, Washington, DC, August 2006.
- Achieve, Inc., Benchmark of NJ Mathematics High School Standards, Washington, DC, May 2006.
- College Board & Achieve, Inc., Benchmark of Mathematics High School Standards, Washington, DC, April 2006.
- Achieve, Inc., Benchmark of AK Mathematics High School Standards, Washington, DC, April 2006.
- Achieve, Inc., Benchmark of GA Mathematics High School Standards, Washington, DC, April 2006.
- Achieve, Inc., ADP Mathematics Backmapping Workgroup, Washington, DC, March 2006.
- Achieve, Inc., Benchmark of MI Mathematics High School Standards, Washington, DC, March 2006.
- Achieve, Inc., Algebra II End-of-Course Exam Development Workgroup, Washington, DC, January 2006.
- Achieve, Inc., High School Mathematics Curriculum Development Panel, Washington, DC, September 2005.
- Achieve, Inc., High School Mathematics Curriculum Development Panel, Austin, TX, February 2005.
- Achieve, Inc., National Assessment Governing Board, Analysis of Frameworks in Mathematics for Grade 12, Washington, DC, February 2005.
- Emirate of Qatar, Alignment analysis of science and mathematics standards, June 2004.
- American Diploma Project, Vertical alignment of MAP and end-of-high-school benchmarks, Washington, DC, September 2003.
- American Diploma Project, Making the HS Diploma Count, Washington, DC, May-September 2003.
- American Diploma Project, Calibrating the Indiana School Standards, Indianapolis, IN, September 2002.
- American Diploma Project, Bridging the Gap Symposium, Austin, TX, January 2002.

g. Conference Committees

- Session Chair, *Delayed Differential Equations / Cancer*, 11th Conference on Dynamical Systems Applied to Biology and Natural Sciences, Trento, Italy, February 2020.
- Session Chair, *Make great money, change the world (for the better): PhD options in Management and Economics*, Career Paths in the Mathematical Sciences: An IMA / Math Alliance Workshop, Minneapolis, MN, June 2019.
- Co-Organizer & Chair, Special Session "Two-sex and other multi-species interactions in ecology and human population dynamics", Fifth Conference on Computational and Mathematical Population Dynamics (CMPD5), Fort Lauderdale Beach, Florida, May 2019.
- Organizing Committee, Fifth International Conference on Computational and Mathematical Population Dynamics (CMPD 5), Ft. Lauderdale, Florida, May 2019.
- Co-Organizer, BCAM Workshop Populations in Epidemics and Ecology, Basque Center for Applied Mathematics, Bilbao, Spain, July 2017.
- Organizer & Chair, Professional Development Session *What Do I Do with My Bachelor's* at the SACNAS Annual Meeting, Long Beach, CA, October 2016.
- Chair, Jury for Graduate Awards in Applied Mathematics, SACNAS Annual Meeting, Long Beach, CA, October 2016.
- Organizer & Chair, Mini-Symposium *Advances in Modeling and Simulation of Population Dynamics and Tumor Growth*, 12th World Congress on Computational Mechanics, Seoul, South Korea, July 2016.
- Organizer & Chair, Special Session *Models for Treatment of Prostate Cancer*, 11th AIMS Conference on Dynamical Systems and Differential Equations, Orlando, FL, July 2016.
- Plenary Session Chairman, MathCompEpi 2015 Conference, Erice, Italy, September 2015.
- Session Chairman, *Tuberculosis & Techniques*, MathCompEpi 2015 Conference, Erice, Italy, August 2015.
- Chair, Jury for Graduate Awards in Applied Mathematics, SACNAS Annual Meeting, San Antonio, TX, October 2013.
- Organizer, Special Session *Where Is The Fruit? Successful Collaborations Between Mathematicians and Biologists*, SACNAS Annual Meeting, San Antonio, TX, October 2013.
- Organizer, Special Session *Mathematical Models in Life and Environment* at the Joint International Meeting of the AMS and the Romanian Mathematical Society, Alba Iulia, Romania, June 2013.
- Organizing Committee, SMB Annual Meeting, Tempe, AZ, June 2013.
- Steering Committee, Fourth International Conference on Computational and Mathematical Population Dynamics (CMPD 4), Taiyuan, China, May-June 2013.
- Scientific Committee, Conference *Mathematical Innovative Methods and Models Of BIOsciences* (MIMMO-BIO), Trento, Italy, December 2011.
- Co-organizer, Conference *Mathematical Innovative Methods and Models Of BIOsciences* (MIMMO-BIO), Trento, Italy, December 2011.
- Chair, Jury for Undergraduate Awards in Applied Mathematics, SACNAS Annual Meeting, San Jose, CA, October 2011.
- Organizer, Special Session *Modern Developments in Mathematics of Infectious Diseases*, Third International Conference on Computational and Mathematical Population Dynamics (CMPD 3), Bordeaux, France, June 2010.
- Steering Committee, Third International Conference on Computational and Mathematical Population Dynamics, Bordeaux, France, June 2010.
- Organizing Committee, Second International Conference on Computational and Mathematical Population Dynamics (CMPD 2), Campinas, Brazil, July 2007.
- Steering Committee, Second International Conference on Computational and Mathematical Population Dynamics (CMPD 2), Campinas, Brazil, July 2007.
- Scientific Committee, Third International Conference on Deterministic and Stochastic Modeling of Biointeraction (DeStoBio 3, CMPD 1), Trento, Italy, June 2004.

- Scientific Committee, Alacalá Second International Conference on Mathematical Ecology, Alacalá de Henares, Spain, September 2003.
- Chair, Organizing Committee for the Second International Conference on Deterministic and Stochastic Modeling of Biointeraction (DeStoBio 2), West Lafayette, IN, August 2000.
- Scientific Committee, Alacalá 1st International Conference on Mathematical Ecology, Alacalá de Henares, Spain, September 1998.
- Co-organizer, Special Session on *Numerical Methods in Mathematical Population Dynamics*, Vth International Conference on Mathematical Population Dynamics, Zakopane, Poland, June 1998.
- Jury, Olimpíada Rioplatense, Mendoza, Argentina, December 1997.
- Programme Committee, 1st International Congress on *Deterministic and Stochastic Aspects of The Modeling of Biointeraction DESTOBIO '97*, Sofia, Bulgaria, August 1997.
- Evaluation Committee, Eighth International Congress of Biomathematics, Panama City, Panama, August 1997.
- Coordination Committee, Thirty-Eighth International Mathematical Olympiad (38th IMO), Mar del Plata, Argentina, July 1997.
- Co-organizer, Special session on *Mathematics of the Living*, XXIII National Congress of Numerical Analysis, Royan, France, 1991.
- Scientific Committee, Year of Concentration in *Mathematical Models of Combustion*, Institute for Applications of Computing *Mauro Picone*, Rome, Italy, 1989.

9. PUBLICATIONS

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- M. Iannelli and F.A. Milner, Age-Structured Populations: An Introduction to the Mathematical Models and Methods, Springer: London, July 2017.
- M. Iannelli, M. Martcheva, and F.A. Milner, Gender-Structured Population Modeling: Mathematical Methods, Numerics and Simulations, SIAM: Philadelphia, USA, April 2005.

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- Gulbudak, H., Qu, Z., Tuncer, N and Milner, F.A., Sensitivity analysis in an immune-epidemiological model. Under revision for *Bull. Math. Bio*.
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