SUMMIT-P at MichMATYC 2023

Website for Michigan AMATYC
conference: https://sites.google.com/view/michmatyc2023/home

1. Pre-Conference Workshop

Piercey, V. Interdisciplinary Collaboration Strategies for Curricular Reform. Friday, September 29, 2023

2. Keynote Speaker

Piercey, V. On the Nodes: Cross-Disciplinary Connections. Saturday, September 30, 2023.

SUMMIT-P at MathFest 2023

A Study of DE Knowledge Transfer to Engineering Courses: A SUMMIT-P Initiative Rebecca Segal, Laura Ellwein-Fix, Afroditi Filippas, Virginia Commonwealth University, Tampa Convention Center, August 2023.

Aligning Differential Equations with Partner Disciplines through Applications (a SUMMIT-P Collaboration) Rebecca Segal, Virginia Commonwealth University, Tampa Convention Center, August 2023.

Building Interdisciplinary Partnerships to Create Application-Focused Mathematics Content, a SUMMIT-P Project, Rebecca Segal, Virginia Commonwealth University, Tampa Convention Center, August 2023.

SUMMIT-P at Other Conferences 2022-23

Active Learning in Economics: Lessons from SUMMIT-P Stella Hofrenning, Augsburg University, American Economic Association Conference, New Orleans, LA, January 2023

SUMMIT-P at SLU Mike May, Saint Louis University, International Conference on Technology in Collegiate Mathematics, Denver, CO, November 2022

Improving Mathematics and Statistics Education in Nursing: National Recommendations and Implications for Further Collaboration Victor Piercey (Ferris State University), Daniel Ozimek, and Anna Wendel, National League of Nurses Summit, Las Vegas, NV, September 2022

Using a Faculty Learning Community to Reduce Student Math Anxiety Liz Post, Mischelle Stone, Lauren Cavner-Williams, and Mary Beaudry, Ferris State University, Lilly Conference on Teaching and Learning, Asheville, NC, August 2022

Supporting Quantitative Habits of Mind with Roleplay Victor Piercey, Ferris State University, Games, Learning, and Society Conference, University of California-Irvine, Irvine, CA, June 2022

A Failed Context: Reflections on a Mathematics Role-Playing Game about the Flint Water Crisis Victor Piercey, Ferris State University, Games, Learning, and Society Conference, University of California-Irvine, Irvine, CA, June 2022

Applied and Active Calculus Built through Interdisciplinary Collaborations: A SUMMIT-P Project Su Dorée and Jody Sorensen, Augsburg University, AWM Research Symposium, Association for Women in Mathematics, Minneapolis, MN, June, 2022

SLU-SUMMIT-P Making Math Education More Effective for Business Students Mike May, Anneke Bart, and Debbie Pike, Saint Louis University, poster presentation at IUSE Summit on Propelling Change, Moving from Strategy Toward Effective and Equitable Undergraduate STEM Education, National Science Foundation and American Association for the Advancement of Science, Washington DC, June 2022

Workshop on Humanistic STEM Debra Bourdeau, Embry-Riddle Aeronautical University, IUSE Summit on Propelling Change, Moving from Strategy Toward Effective and Equitable Undergraduate STEM Education, National Science Foundation and American Association for the Advancement of Science, Washington DC, June 2022

Connecting Partner Disciplines with Mathematics through Applications in Differential Equations Rebecca Segal, Laura Ellwein Fix, Afroditi Filippas, Virginia Commonwealth University, poster presentation at IUSE Summit on Propelling Change, Moving from Strategy Toward Effective and Equitable Undergraduate STEM Education, National Science Foundation and American Association for the Advancement of Science, Washington DC, June 2022

Renovating Calculus with the Partner Disciplines at Augsburg University: A SUMMIT-P Project Su Dorée, Augsburg University, poster presentation at IUSE Summit on Propelling Change, Moving from Strategy Toward Effective and Equitable Undergraduate STEM Education, National Science Foundation and American Association for the Advancement of Science, Washington DC, June 2022

SUMMIT-P: Using Faculty Learning Communities in Mathematics and Partner Disciplines at Lee University Caroline Maher-Boulis, Lee University, poster at IUSE Summit on Propelling Change, Moving from Strategy Toward Effective and Equitable Undergraduate STEM Education, National Science Foundation and American Association for the Advancement of Science, Washington DC, June 2022

Adapting an In-Person Human Trafficking Group Activity to an Asynchronous Online Learning Experience: A SUMMIT-P Project Beverly Wood (Embry-Riddle Aeronautical University) and Victor Piercey (Ferris State University), Joint Mathematics Meeting (virtual), April 2022

Building Interdisciplinary Partnerships to Create Application-Focused Mathematics Content: A SUMMIT-P Project Rebecca Segal, Virginia Commonwealth University, COMMIT workshop at MAA Maryland, DC, Virginia Section Meeting, Montgomery College, MD, April 2022

Reflections on Interdisciplinary Teaching Partnerships: The SUMMIT-P Model Victor Piercey, Ferris State University, Invited Speaker at MAA Michigan Section Annual Meeting, Grand Valley State University, Grand Rapids, MI, April 2022

Manipulative Use in the Classroom: A SUMMIT-P Project Jason Robinson, Lee University, Center for Teaching Excellence, Lee University, April 2022

Laplace Meets Tesla in a Differential Equations Class Maila Brucal-Hallare and Shahrooz Moosavizadeh, Norfolk State University, Annual Conference of the Virginia Council of Teachers of Mathematics, March 2022

Rethinking Business Calculus with Excel and Open-Source Materials Mike May, Saint Louis University, ICTCM22, Orlando, FL, March 2022

Using Excel for Modeling and Template Construction in Service Courses Mike May, Saint Louis University, ICTCM22, Orlando, FL, March 2022

Classroom Activities from Interdisciplinary Collaborations between Math and Economics Stella Hofrenning, Augsburg University, Academy of Business Economics at Midwest Business Administration Association International Conference, Chicago, IL, March 2022

Interdisciplinary Interventions to Use in Algebra Courses Caroline Maher-Boulis, Lee University, MAA Southeastern Section Meeting, March 2022

Application-Centric Mathematics Curriculum for Electrical Engineering Majors Makarand Deo, Shahrooz Moosavizadeh, and Maila Brucal-Hallare, Norfolk State University, ASEE Annual Conference, Prairie View A & M University, Prairie View, TX, March 2022

Humanistic STEM: How Partnering with STEM Disciplines Can Elevate the Humanities Debra Bourdeau and Beverly Wood, Embry-Riddle Aeronautical University, Northeast Modern Language Association 52nd Annual Convention, Baltimore, MD, March 2022

What is the Future of Humanistic STEM? Debra Bourdeau and Beverly Wood, Embry-Riddle Aeronautical University, Northeast Modern Language Association 52nd Annual Convention, Baltimore, MD, March 2022

Quantitative Reasoning and Foreign Affairs: A SUMMIT-P Project Victor Piercey, Ferris State University, National Numeracy Network Annual Meeting, Tampa, FL, March 2022

Integrating Quantitative Reasoning in the Majors with a Faculty Learning Community: A SUMMIT-P Project Victor Piercey, Ferris State University, National Numeracy Network Annual Meeting, Tampa, FL, March 2022

Collaborating with the Humanities to Improve Quantitative Habits of Mind Beverly Wood and Debra Bourdeau, Embry-Riddle Aeronautical University, National Numeracy Network Annual Meeting, Tampa, FL, March 2022

Wireless Power Transfer: Powering Up Your Toothbrush Makarand Deo, Shahrooz Moosavizadeh, and Maila Brucal-Hallare, Norfolk State University, Engineering Mathematics, and Mathematics and Art, Warwick High School, Newport News, VA, February 2022

Working with Discipline Partners to Enhance Entry Level Math Classes Janet Bowers (San Diego State University) and Bori Mazzag (California State Polytechnic University - Humboldt), CSEMS California State University STEM-NET Consortium, February 2022

Laplace Meets Tesla in a Differential Equations Class Maila Brucal-Hallare, Norfolk State University, SIMIODE Expo 2022, February 2022

Strengthening the Research-Teaching-Research Nexus: The Undergraduate Approach Maila Brucal-Hallare, Norfolk State University, SIMIODE Expo 2022, February 2022

SUMMIT-P at MathFest 2022

Marriott Downtown, Philadelphia, PA. August 3 - 6, 2022

MAA Minicourse on the SUMMIT-P Model

Re-imaging the Mathematics Curriculum in the First Two Years in Collaboration with Partner Disciplines -- the SUMMIT-P Model. Pre-registration is required and space is limited. The cost is $110 through June 30 and $120 thereafter.

Victor Piercey (Ferris State University) and Su Doree are leading this 4-hour Minicourse which will provide hands-on experience with strategies that the SUMMIT-P consortium have used to build and sustain interdisciplinary partnerships to work on improving calculus,

quantitative reasoning, amd other introductory mathematics courses. Participants will also try examples of innovative in-class activities built by those partnerships.

The minicourse meets Thu Aug 4 and Fri Aug 5 from 3:00-4:50 PM in Salon K of the Philadelphia Marriott-Downtown.

SUMMIT-P Contributed Paper Session

The Impact of Interdisciplinary Collaborations: Lessons from SUMMIT-P and Other Projects. Thursday Aug 4 from 8:00 - 10:55 am in Salon J of the Philadelphia Marriott-Downdown.

- 8:00-8:15 AM 20 + 20 + 20 = 70: An Inquiry-based Active Learning Structure for Calculus Developed in the SUMMIT-P Project Suzanne Dorée, Augsburg University
- 8:00-8:15 AM Sustainable Curricular Reform - SUMMIT-P at SLU Mike May, S.J., Anneke Bart, Kim Druschell, Debbie Pike, Saint Louis University
- 8:20-8:35 AM Scenario-Based Teaching and Learning Victor Piercey, Rhonda Bishop, Mischelle Stone, Ferris State University
- 8:40-8:55 AM A SUMMIT-P Project: Creating Interdisciplinary Partnership between Math and Engineering to Inspire Application-Forward Content Rebecca Segal, Laura Ellwein Fix, Afroditi Filippas, Virginia Commonwealth University
- 9:00-9:15 AM Science Interventions for Implementation in Algebra for Calculus Course: An Outcome of the SUMMIT-P Project Caroline Maher-Boulis, Lee University
- 9:20-9:35 AM Just in Time Review for Accounting Anneke Bart, Debbie Pike, Mike May, Saint Louis University
- 9:40-9:55 AM Trickle Down Effects from SUMMIT-P Collaboration: Helping to Bridge the Gap between Math and Chemistry Courses John Hearn, Lee University
- 10:20-10:35 AM Important Questions for Developing Applied Mathematics Problems: A SUMMIT-P Project Lynn Gumpinger, Mary Beisiegel, Oregon State University
- 11:40-11:55 AM Building Students' Quantitative Reasoning in Economics Courses: Lessons from the SUMMIT-P Project Stella Hofrenning, Augsburg University

Workshop

Using Excel to Make Service Courses More Effective Mike May, Anneke Bart, Saint Louis University. Fri Aug 5, from 2:30 - 3:50 PM in Salon C of the Philadelphia Marriott-Downtown.

Poster Session

Projects Supported by the NSF Division of Undergraduate Education - this poster session will have posters from several SUMMIT-P institutions. Thursday Aug 4 9:00-10:20 AM in Franklin Hall A.

Other SUMMIT-P Talks

- Not Just Physics --Applications from the Partner Disciplines in Calculus: A SUMMIT-P Project Jody Sorensen, Augsburg University. Friday Aug. 5 from 8:20-8:35 AM in Room 410 of the Philadelphia Marriott-Downtown.
- An Interdisciplinary Initiative towards Modeling-First Differential Equations Laura Ellwein Fix, Rebecca Segal, Afroditi Filippas, Virginia Commonwealth University. Friday Aug. 5 from 9:00-9:15 AM in Salon D of the Philadelphia Marriott-Downtown.
- Laplace Meets Tesla In a Differential Equations Course - A SUMMIT-P Project Shahrooz Moosavizadeh, Maila Hallare, Makarand Deo, Norfolk State University. Friday Aug. 5 from 10:40-10:55 AM in the Philadelphia Marriott-Downtown.
- Exploring Themes of Social Inequalities in Three Different Types of Statistics Courses Kim Druschell, Mike May, Saint Louis University, Thursday Aug. 4 from 10:40 to 10:55 am in Salon F of the Philadelphia Marriott-Downtown.
- How Data Science Naturally Brings Social Awareness into the Classroom: Insights from a SUMMIT-P Collaboration Senjuti Dutta, Alex Bentley, Jeneva Lauren Clark, Nicholas Nagle, Thursday Aug. 4 from 10:20 to 10:35 am in Salon F of the Philadelphia Marriott-Downtown.

SUMMIT-P Spring 2022 Virtual Workshop Series

The National Consortium for Synergistic Undergraduate Mathematics via Multi-institutional Interdisciplinary Teaching Partnerships (SUMMIT-P) has been working since 2016 to revise and improve the lower division undergraduate mathematics curriculum. The key element of these innovations is interdisciplinary partnerships, with partner disciplines directly involved in decisions about curricular needs. Collectively, the consortium has impacted over 60,000 undergraduate students and 250 college faculty from a wide array of disciplines (www.summit-p.com).

A webinar series is being conducted this Spring to share some of the numerous interdisciplinary classroom activities developed by SUMMIT-P institutions (submitted as an

MAA Notes volume, Synergistic Undergraduate Mathematics via Multi-Institutional Teaching Partnerships: Resources from SUMMIT-P for Building Interdisciplinary Collaboration). Sponsored by MAA's committee on Curriculum Renewal Across the First Two Years (CRAFTY), this series will include four 90-minute webinars that will provide rich discussions and hands-on experiences with the SUMMIT-P classroom activities. Participants also will be invited to become members in the SUMMIT-P consortium, which will provide additional support and activities for using SUMMIT-P classroom modules as well as implementation of proven methods of engagement with partner discipline departments. The SUMMIT-P/CRAFTY Webinar Series will kick off on Tuesday, February 1. See below for information about each of the workshops. Zoom log-in details are included below:

https://appstate.zoom.us/j/99178044213?pwd=VWhmVlJOSmNVSGhvMStVMjczbkQ2QT09

Meeting ID: 991 7804 4213

Passcode: 419134

Estimating solar energy based on data: An application of the Riemann sum

Humboldt State University, February 1, 2022 at 3:00-4:30pm ET

An Excel-based calculus activity and related student project will be shared that illustrate an application of the Riemann sum using solar radiation data. In addition to linking the mathematical content to an engineering application, the project emphasizes the impact of solar energy on a local Native community—leading to student reflections on their own energy use.

If you plan to attend this session, please register here: https://forms.gle/Ua5izJ2m8nvST17o8

Business Calculus: Finding the input to give a desired output using Goal Seek

Saint Louis University, March 1, 2022 at 3:00-4:30pm ET

To put problems in context requires a "what-if" analysis to find the y that is produced by a given x. Mechanical aids, like Goal Seek in Excel, allow students to address these questions for problems beyond their algebraic skill level. In this webinar, problems with

parameters as well as processes that do not simply reduce to a simple formula will be investigated.

If you plan to attend this session, please register here: https://forms.gle/V1nteE8Br8aaGWDo8

Graphical analysis in biomedical engineering: ECGs

Norfolk State University, March 24, 2022 at 3:00–4:30 pm ET

A biomedical engineering application, to be used in calculus courses, will be shared to emphasize the utility of graphical analysis methods. Electrocardiography is a non-invasive and non-medicated procedure of recording heart signals that produces electrocardiograms (ECG). These ECGs are used by medical personnel to conduct preliminary analyses of heart activity. The use of calculus in analyzing ECGs will be emphasized.

If you plan to attend this session, please register here: https://forms.gle/m5DT5kGwyrBrJgnv8

Producing interdisciplinary course materials using faculty learning communities inspired by SUMMIT-P

Ferris State University, April 5, 2022 at 3:00-4:30pm ET

Through the SUMMIT-P webinar series, examples of products from the SUMMIT-P consortium have been shared. Now it's time for faculty at each participating institution to collaboratively create new activities. SUMMIT-P institutions have had success using faculty learning communities (FLC), a collaborative professional development structure that emphasizes faculty teams learning together as they work toward a pedagogical goal. This webinar will illustrate how Ferris State University's SUMMIT-P team built and facilitated a FLC to strengthen and expand their collaborative work.

If you plan to attend this session, please register here: https://forms.gle/KoYNXqCm273nUpcR9

Ethical Data Communication in the Healthcare Curriculum

Victor Piercey and Anna Wendel

Virtual Webinar sponsored by the Charles A. Dana Center at the University of Texas-Austin, November 2021

What do Victor Frankenstein, John Glenn, and Walt Whitman Have in Common? Creating STEM/Humanities Partnerships

Debra Bourdeau, Beverly Wood, and Karen Keene

Workshop at AACU Virtual Conference on Transforming STEM Higher Education, November 2021

The Impact of Interdisciplinary Collaboration Opportunities for Mathematics and Social Science Majors

Brian Poole and Caroline Maher-Boulis

Society for the Teaching of Psychology Annual Conference, October 2021

Building Interdisciplinary Partnerships to Create Application-Focused Mathematics Content: A SUMMIT-P Project

Rebecca Segal

First2 Network Vitrual Convening, October 2021

Cross-Disciplinary Collaboration to Develop, Implement, and Maintain Multiple Forms of Inquiry in a Quantitative Reasoning Course at Ferris State University

Victor Piercey

Invited Presentation at AMS Central Sectional Meeting, American Mathematical Society, October 2021

The SUMMIT-P Project: Transforming Undergraduate Mathematics Education to Support Partner Disciplines

Hargraves, R.H. and Filippas, A.V.

ASEE Annual Meeting, July 2021

Business Calculus with Excel

Mike May

PTMT Workshop on Undergraduate Teaching with Mathematics and Statistics Action Technologies, June 2021

Discussion Series on Recommendations for Mathematics Education for Nurses

Victor Piercey, with Daniel Ozimek, Joan Zoellner, Beth Kelch, and Anna Wendel

Charles A. Dana Center at the University of Texas-Austin, May 2021 - July 2021

Quantitative Reasoning Workshop

Victor Piercey

Mathematical Inquiry Project of the Oklahoma Public Universities, May 2021

Integrating Social Justice into Mathematics Classes

Victor Piercey

MAA Seaway Section and Greater-Upstate New York Inquiry-Based Learning Community, April 2021

Northeast Modern Language Association 52nd Annual Conference

Bourdeau, D. and Wood, B., March 2021, Virtual

- Presentation - Humanistic STEM: From Concept to Course and Beyond
- Roundtable - Building and Sustaining Interdisciplinary Partnerships

Invited Talk: Careers in Mathematics

Jeneva Clark

Fisk University, Nashville TN (virtual), March 2021

Presentation: Deficits, Descartes, and Discovery - An Observational Approach to Teaching Curvature

Clark, J.M. and Clark, L.J.

MAA Southeastern Section Meeting, March 2021

Presentation: If You Hopped Like a Frog - Groupwork and Creativity in an Online Setting

Dennerlein, J. and Clark, L.J.

MAA Southeastern Section Meeting, March 2021

Presentation: Infinity and Beyond - Teaching Infinity to Non-STEM Majors

Honeycutt, J. and Clark, L.J.

MAA Southeastern Section Meeting, March 2021

Presentation: Ballot Box Bogglers - Unexpected Connections Between Voting and Fairness

Siktar, J. and Clark, L.J.

MAA Southeastern Section Meeting, March 2021

Presentation: Teaching Math with Food Manipulatives

Spence, L. and Grinstead, L.

MAA Southeastern Section Meeting, March 2021

Presentation: Building an Open-Source, Excel-Based, Business Calculus Course with Online Homework and Videos

Mike May

MAA Missouri Section Meeting, March 2021

Presentation: Too Many Cooks in the QR Kitchen? Leveraging Interdisciplinary Expertise in Developing an Alternative Math Pathway

Beverly Wood and Debra Bourdeau

National Numeracy Network Annual Meeting, February 2021

Presentation: Working with Discipline Partners to Enhance Entry-Level Math Classes

Bowers, J.S. and Mazzag, B.

California State University STEM-NET Web Presentations, February 2021

Presentation: SUMMIT-P. Math Faculty Collaborate with Client Disciplines to Improve Lower Division

Bowers, J.S. and Mazzag, B.

STEM-NET California State University Faculty Interest Group Meting, February 4 2021

Presentation: Peer Leaders at SDSU

Bowers, J.S. and Pilgrim, M.

California State University Math Council Colloquia (MC^2), January 24 2021

Joint Mathematics Meeting, January 2021

MAA Contributed Paper Session on Incorporating Realistic Applications of Mathematics Through Interdisciplinary Collaborations

Organized by Mary Beisiegel, Suzanne Doree, Mary R. Parker, Rebecca Segal.

Part 1: Wednesday January 6, 9:00 am to 10:55 am

- 9:00 a.m.
  A Compartmental Analysis Model of Persistent Environmental Toxins.
  John C Merkel*, Oglethorpe University
  Robert Dougherty-Bliss, Rutgers University
  (1163-A5-1414)

- 9:20 a.m.
  Fostering Increased Sense of Belonging in a Calculus Class through an Inter-disciplinary Project in the Context.
  Girija S Nair-Hart*, University of Cincinnati, Clermont
  (1163-A5-1145)

- 9:40 a.m.
  Integrating Quantitative Reasoning and Clinical Judgment: An On-going Collaboration Between Mathematics and Nursing Faculty at a Health Sciences College.
  Lindsay C Good*, Pennsylvania College of Health Sciences
  Daniel L Ozimek, Pennsylvania College of Health Sciences
  (1163-A5-1352)

- 10:00 a.m.
  Integrating Geoscience Contexts into Precalculus.
  Theresa A. Jorgensen*, Department of Mathematics, University of Texas at Arlington
  Elizabeth M. Griffith, School of Earth Sciences, Ohio State University
  W. Ashley Griffith, School of Earth Sciences, Ohio State University
  Brittan Wogsland, School of Earth Sciences, Ohio State University
  Lindsey Hernandez, School of Earth Sciences, Ohio State University
  J. Lowe, Department of Mathematics, University of Texas at Arlington
  (1163-A5-1054)

- 10:20 a.m.
  An Application of Mathematical Structures to a Philosophical Debate.
  Deborah C. Arangno*, Holy Cross College
  (1163-A5-221)

- 10:40 a.m.
  Realistic Yet Comprehensible Models of Applied Problems using Monte-Carlo Simulations in Discrete Mathematics.
  Gregory V. Bard*, The University of Wisconsin---Stout
  (1163-A5-1585

Part 2: Wednesday January 6, 2:15 pm to 3:30 pm

- 2:15 p.m.
  Variables and Parameters in Math for Business.
  Mike May*, Saint Louis University
  (1163-A5-1418)

- 2:35 p.m.
  Incorporating Chemistry into a Calculus Lab.
  Pavel Belik*, Augsburg University (Department of Mathematics, Statistics, and Computer Science)
  Joan Kunz, Augsburg University (Department of Chemistry)
  (1163-A5-1363)

- 2:55 p.m.
  Integrating Mathematics, Science, Engineering and Technology to Prepare Secondary Teachers.
  Janet M Shiver*, Central Washington University
  Ian Quitadamo, Central Washington University
  Tim Sorey, Central Washington University
  (1163-A5-1460)

- 3:15 p.m.
  Sequential Optimal Designs for Estimating Population Dynamics.
  R E Bergee*, Virginia Commonwealth University
  E L Boone, Virginia Commonwealth University
  R A Ghanam, Virginia Commonwealth University - Qatar
  B Stewart-Koster, Australian Rivers Institute
  (1163-A5-973)

Workshop: Increasing Engagement in and Support for Equity Work

Will feature Victor Piercey

Thursday, Jan. 7, 9:00 am

Panel: Cross-Discipline Collaboration for GE Content Development

Liza Boyle, Sonja Manor, Bori Mazzag, and Ruth Saunders

Teaching Excellence Symposium, December 3 2020, 12 - 12:50 pm

Invited Webinar: Successfully Navigating Online Education

Debra Bourdeau and Beverly Wood

IEEE Northern Virginia Section, November 2020

Invited Talk: Mathematics, Social Justice, and Ethics

Victor Piercey

Calvin College, November 2020

Using a Faculty Learning Community to Reduce Math Anxiety in Social Work Students

Liz Post, MSW, LMSW, and Mischelle Stone, Ph.D., Department of Social Work, Ferris State University

Council on Social Work Education (CSWE) meeting, November 18, 2020.

Invited Talk: Integrating Social Justice and Ethics Across the Mathematics Curriculum

Victor Piercey

MAA Michigan Section Upper Peninsula Annual Meeting

Invited Webinar: Successfully Navigating Online Education

Bourdeau, D., Wood, B.,

SUMMIT-P Webinar, September 2020

Calculus for Ecology? Identifying Quantitative Skills Applied in the Biology Curriculum

Williams, K., S. Bowers, J. Luque, and M. Anderson

106th Ecological Society of America Annual Meeting (virtual), August 2020

Collaboration Paradigms Between Math and Engineering

Filippas, A.V.

ASEE Virtual Annual Conference, June 2020

Workshop: Humanistic STEM: How Partnering with STEM Disciplines Can Elevate the Humanities

Bourdeau, D., B. Wood

Northeast Modern Language Association (NeMLA), March 2020, Boston, MA.

Joint Mathematics Meeting, January 2020, Denver CO

MAA Workshop: Improving Undergraduate Mathematics Courses Using Problems from Partner Disciplines.

Ganter, S., Piercey, V., and Sorensen, J.

Wednesday January 15, 3:40 - 5:00

Incorporating Realistic Applications of Mathematics Through Interdisciplinary Collaborations

MAA Themed Contributed Paper Session organized by Mary Beisiegal, Su Doree, Mary Parker, and Rebecca Segal.

Thurs. Jan. 16, 2020. 8 am to 11:55 am.

- 8:00 a.m.
  Integrating Geoscience Contexts into College Algebra.
  Theresa Jorgensen*, Department of Mathematics, University of Texas at Arlington
  Elizabeth Griffith, School of Earth Sciences, Ohio State University
  W. Ashley Griffith, School of Earth Sciences, Ohio State University
  Casey Saup, School of Earth Sciences, Ohio State University
  Rebekah Aduddell, Department of Mathematics, University of Texas at Arlington
  (1154-G1-2755)

- 8:20 a.m.
  Contextualize College Algebra with Economics.
  Tao Chen*, CUNY LaGuardia Community Colllege
  Glenn Henshaw, CUNY LaGuardia Community College
  Soloman Kone, CUNY LaGuardia Community College
  Choon Shan Lai, CUNY LaGuardia Community College
  (1154-G1-1721)

- 8:40 a.m.
  A Hurricane Katrina Case Study: Integrating Social Justice, Health Care, and Business through Mathematics.
  Victor I. Piercey*, Ferris State University
  (1154-G1-231)

- 9:00 a.m.
  Magnifying the Role of Mathematics in the World of Sciences in Math Courses.
  Shahrooz Moosavizadeh*, Norfolk State University
  (1154-G1-1658)

- 9:20 a.m.
  Creating Calculus Activities through Interdisciplinary Collaborations.
  Jody Sorensen*, Augsburg University
  Suzanne Dorée, Augsburg University
  (1154-G1-2204)

- 9:40 a.m.
  Delicious Mathematics: Contexts for Mathematical Exercises from the Science and Engineering of Food.
  Artemis Karaali, Yeditepe University
  Gizem Karaali*, Pomona College
  (1154-G1-343)

- 10:00 a.m.
  Connecting Partner Disciplines with Mathematics through Applications in Differential Equations.
  Rebecca Segal*, Virginia Commonwealth University
  (1154-G1-654)

- 10:20 a.m.
  Incorporating Dentistry Applications from Interdisciplinary Collaborations into the Classroom.
  Nicoleta Corcodel, University of Heidelberg
  Kevin Rion, Bridgewater State University
  Irina Seceleanu*, Bridgewater State University
  Wanchunzi Yu, Bridgewater State University
  (1154-G1-2443)

- 10:40 a.m.
  Introductory Statistics for nursing, physical therapy and allied health students.
  Katherine Radler*, Saint Louis University
  Kimberly Druschel, Saint Louis University
  Michael May, Saint Louis University
  Sadita Salihovic, Saint Louis University
  (1154-G1-1558)

- 11:00 a.m.
  Collaboration between the College of Education and Department of Mathematical Sciences at Lee University.
  Caroline Maher-Boulis*, Lee University
  (1154-G1-733)
- 11:20 a.m.
  Mathematics and Redistricting: Authentic Learning through Government Partnerships.
  Kyle Evans*, Trinity College
  (1154-G1-2593)

Active and Applied Calculus: a SUMMIT-P Collaboration

Dorée, S. and J. Sorensen

MAA Contributed Paper Session on Re-Envisioning the Calculus Sequence

Thurs. Jan. 16, 10:00 am

A complete CRAFTY inspired Business Calculus Course

May, M.

MAA Contributed Paper Session on Making Business Calculus Relevant

Friday, Jan. 17, 10:00 am.

Partnership in Action: Promoting STE Applications in M courses Via Team-Teaching

Brucal-Hallare, M., Moosavizadeh, S., Deo, M.

Mid-Atlantic RUME Conference, James Madison University, October 2019, Harrisonburg, VA.

Connecting Partner Disciplines with Mathematics through Applications in Differential Equations

Segal, R.

Mid-Atlantic RUME Conference, James Madison University, October 2019, Harrisonburg, VA.

Using a Faculty Learning Community for Course Revision: Lessons Learned

Stone, M., R. Bishop, and V. Piercey

Lilly Conference on Evidence-Based Teaching and Learning, International Teaching and Learning Cooperative (ITLC), October 2019, Traverse City, MI.

The Use of Manipulatives in the Classroom: An Outcome of Collaboration Between the Mathematics Department and College of Education

Jones, A., C. Maher-Boulis, and J. Robinson

Appalachian College Association Annual Summit, September 2019, Pigeon Forge, TN.

Student Collaboration: Integrating Mathematics and Social Sciences Through Statistics

Maher-Boulis, C., and B. Poole

Appalachian College Association Annual Summit, September 2019, Pigeon Forge, TN.

A Faculty Learning Community to Support Mathematics Education for Students in Nursing, Social Work, and Business

Piercey, V., M. Stone, and R. Bishop

MAA MathFest, August 2019, Cincinnati, OH.

Game and Simulation-Based Learning

Piercey, V.

Live Classroom Demonstration at National Inquiry-Based Learning and Teaching Conference, June 2019, Denver, CO

Applied and Active: Renovating Calculus at Augsburg

Belik, P., S. Dorée, J. Sorensen, J. Zobitz

Mathematical Association of America North Central Section meeting, April 2019, Augsburg University, Minneapolis, MN.

Connecting Partner Disciplines with Mathematics through Applications in Differential Equations

Segal, RA.

Math Ed Seminar, April 2019, Virginia Commonwealth University, Richmond, VA

Correlation and collaboration: Integrating Mathematics and Social Sciences through Statistics

Poole, B. D., Conn, O., & Haynes, E.

65th Annual Meeting of the Southeastern Psychological Association, March 2019, Jacksonville, FL.

Joint Mathematics Meeting, January 2019, Baltimore MD

Panel: Impacting Mathematics Instruction through Meaningful Collaboration with Partner Discipline Faculty

Ganter, S., Hargraves, R., Hofrenning, S., Piercey, V., and Williams, K.

Wednesday Jan. 16, 4:15 pm

Role-Playing Simulations in an Inquiry-Based Quantitative Reasoning Course

Piercey, V., R. Bishop, and M. Stone

MAA Contributed Paper Session on Inquiry-Based Teaching and Learning

Friday, Jan. 18, 4:20 pm.

Connecting Partner Disciplines with Mathematics through Applications in Differential Equations

Segal, R.A.

AMS Special Session on Using Modeling to Motivate the Study of Differential Equations

Saturday, Jan. 19, 11:30 a.m.

A Renovated Calculus Class: Active and Applied

Sorensen, J.

MAA Contributed Paper Session on Integrated STEM Instruction in Undergraduate Mathematics

Thursday, Jan. 17, 1:00 pm.

Improving Mathematics Connections for Majors and Non-Majors through Interdisciplinary Partnerships

Victor Piercey, Caroline Maher-Boulis, and Mike May.

November 9, 2018, 2 pm - 3 pm, Hanover B, LowerLevel 2

AAC&U STEM Conference, Atlanta GA,

SUMMIT-P Collaboration at Ferris State University

Bishop, R.

Midwest Interprofessional Practice, Education, and Research Center, September 2018, Grand Rapids, MI.

Do Math and Economics Help Each Other?

Chen, T., G. Henshaw, S. Kone and C. Lai

Open Session, LaGuardia Community College, September 2018

From Cells to Ecosystems: Integrating Calculus and Statistics Throughout the Biology Major's Curriculum

Williams, Kathy S., Janet S. Bowers, Antoni Luque, and Matt Anderson

104th Ecological Society of America Annual Meeting. August 2018, New Orleans, LA.

Collaborating with Partner Disciplines to Develop Interdisciplinary Teaching Materials

Piercey, V., R. Bishop, and M. Stone

MAA MathFest, Mathematical Association of America, August 2018, Denver, CO.

Bringing Authentic Modeling to College Algebra and Calculus through Collaboration with Partner Disciplines

Victor Piercey

SIAM Annual Meeting, Portland, OR

Wed. July 11, 2018. Oregon Convention Center, Room D139, 1:00 PM PST

Investigating issues of Equity, Diversity, and Inclusion in a Mathematics Class

Voigt, M., Bowers, J., & Kress, N.

2018 SEMINAL Conference, June 2018, Denver CO

Workshop: Models and Modeling in the Sciences

Diaz Eaton, C.

Research in STEM Education Undergraduate Teaching, June 2018, University of Maine, Orono ME.

MAA Webinar: SUMMIT-P

Hosted by Susan Ganter and Victor Piercey, Presented by the Lee University SUMMIT-P team, May 2018

Interdisciplinary Collaborations and Resources Resulting from SUMMIT-P

Maher-Boulis, C.

College of Arts and Sciences Symposium, March 2018, Lee University, Cleveland, TN.

College Algebra Contextualized with Economics

Chen, T.

Innovative Practices in Developmental Mathematics Conference, March 2018, LaGuardia Community College

Mutualistic Networks: Dynamics, Data, and Education

Diaz Eaton, C.

Appalachian State University, February 2018, Boone, NC.

Joint Mathematics Meeting, January 2018, San Diego CA

MAA Session on Implementing Recommendations from the Curriculum Foundations

Project Room 31B, Upper Level, San Diego Convention Center

Wednesday January 10, 2018, 2:15 p.m.-5:35 p.m.

Organizers: Mary Beisiegel, Oregon State University; Janet Bowers, San Diego State University; Tao Chen, City University of New York - LaGuardia Community College; Susan Ganter, Embry-Riddle Aeronautical University; Caroline Maher-Boulis, Lee University

MAA Invited Paper Session on Research in Improving Undergraduate Mathematical Sciences Education: Examples Supported by the National Science Foundation's IUSE: EHR Program

Room 3, Upper Level, San Diego Convention Center

Friday January 12, 2018, 8:00 a.m.-10:50 a.m.

SUMMIT-P investigators were invited by NSF to highlight the SUMMIT-P project in a 20-minute talk as part of this session. See the slides here.

NSF-DUE Poster Session

San Diego Convention Center

Thursday, January 11, 2018, 2:00p.m. – 4:00p.m.

Changing Mathematical Relationships and Mindsets: How All Students Can Succeed in Mathematics Learning

MAA Project NExT Lecture on Teaching and Learning

Ballroom 6AB, Upper Level, San Diego Convention Center

Thursday, January 11, 2018, 11:00 a.m.- 11:50 a.m.

Jo Boaler, Stanford University

This talk and discussion will consider how important new brain science can change students' ideas and approaches to mathematics, change students' mathematics pathways dramatically, and promote equity in mathematics classrooms. We will hear about research in neuroscience and education, watch classroom videos and consider mathematics transformations for school and college students.

An Inquire-Based Learning Course in Discrete Mathematics (for mathematics majors, computer science majors, and future teachers)

MAA Contributed talk

Wed Jan 10 at 3:55 pm

Su Doree

Revising MAA Guidelines on the Work of Faculty and Departments: Supporting Student Success

Thu Jan 11 at 10:35-11:55 am

Su Doree

You can lead a horse to water… : Nurturing motivation in the classroom

Fri Jan 12, 9:55

Su Doree

Abstract: Even well-crafted plans and activities may fail to engage undergraduates who enter the classroom with little or no motivation to understand the mathematical concepts set before them. What can instructors do to address this? This interactive panel brings together experienced mathematics faculty to offer insights and advice for engaging under-motivated students in the context of lower-division mathematics courses. Scenarios and strategies will be discussed, and questions will be welcome.

MAA Session on Trends in Undergraduate Mathematical Biology Education

Room 32A, Upper Level, San Diego Convention Center

Wednesday January 10, 2018, 2:15 p.m.-4:50 p.m.

Carrie Eaton

Translating Marine to Math

4:35 pm

Carrie Diaz Eaton*, School for Environmental Citizenship, Unity College Emma Perry, School for Biodiversity Conservation, Unity College (1135-D1-629)

Discusses a Unity project which focuses on translations between the two disciplines.

A "Rule-of-Five" Framework for Models and Modeling to Unify Mathematicians and Biologists and Improve Student Learning

3:35 pm

Hannah Callender Highlander*, University of Portland Carrie Eaton, Unity College (1135-D1-2235)

Outlays the PRIMUS article submission and the approach that has informed the new calculus framework being implemented at Unity College.

Career and Technical Content in High School Mathematics^2.

Authors: Jason Robinson, Caroline Maher-Boulis, Bryan Poole

Abstract: CATCH Math^2 is a project funded by the Tennessee Higher Education Commission. High school teachers gain insight into mathematical content and career-related skills in Statistics and Functions domains. The project involved a summer workshop where real-world problems, the use of manipulatives and hands-on science experiments enable the teachers, and hence their students, to realize the relevance of mathematics and become aware of career options for mathematics graduates. In this

presentation we give an overview of the ideas of the project and share the results of the evaluation instruments used in assessing the project.

A Mock Fishbowl Discussion

Piercey, V.

National Numeracy Network, November 2017, New York City NY

Workshop: In the Fishbowl: Strategies for Conversations on Mathematics with the Partner Disciplines

Dorée, S., S. Ganter, R. Hobson, and S. Hoffrening

Transforming STEM Higher Education, Association of American College and Universities (AAC&U), November 2017, San Francisco CA

Interdisciplinary Faculty Learning Communities

Maher-Boulis, C.

Center for Teaching Excellence, August 2017, Lee University, Cleveland, TN.

Renovating Calculus Through Conversations with the Partner Disciplines

Sorensen, J.

MAA MathFest, July 2017, Chicago IL

Teaching Business Calculus in an Era of Spreadsheets and the Internet, A Complete Course

May, M. (2017)

International Conference on Technology in Collegiate Mathematics, March 2017, Chicago IL

Contextualizing College Algebra with Economics

Chen, T.

Second Annual Innovative Practices in Developmental Mathematics Conference, March 2017, LaGuardia Community College

Prospective Teachers Facilitating Active Learning Break-out Sections: What We've Learned So Far

Bowers, J., R. Hanna, and E. Meredith

Mathematics Teacher Education Partnership 6th annual conference, Association of Public & Land-Grant Universities (APLU), June 2017, New Orleans LA.