#### MathFest 2023

### **History of Mathematics Talks and Sessions**

## Wednesday, August 2

5:00 - 6:15 am, Ballroom B/C

**MAA Prize Session** 

7:30 - 8:30 pm, Exhibit Hall

**Prizes and Awards Meet & Greet** 

Both sessions to include recognition of this year's recipient of the <u>Gung & Hu Award for Distinguished</u> Service to Mathematics, Dr. Victor J. Katz.

### Thursday, August 3

9:00 - 9:50 am, Ballroom B/C

**MAA/AMS Invited Address** 

Oswald Veblen: Success through Collaboration Sloan Evans Despeaux, Western Carolina University

Abstract: Oswald Veblen (1880–1960) made important contributions to mathematics in America as a mathematical researcher, architect, advocate, and diplomat. Collaboration played a central role in these successful initiatives. Following Veblen's lead, in December 2022, a group of historians of mathematics and mathematicians met for a week to organize a collaborative historical study of Veblen's life. This talk explores some of the collaborations in Veblen's career and some of the collaborative projects that grew out of that workshop.

10:45 am - 12:00 pm, West Hall (Exhibit Hall)

**An Invitation to Mathematical Physics and Its History** Jont Allen, *University of Illinois* 

**Counting and Calculating in Medieval Europe** 

Chuck Lindsey, *Florida Gulf Coast University*Both posters are part of the **MAA Contributed Poster Session**.

2:00 - 3:00 pm, MAA Pavilion (West Hall)

Trivia Event, with questions focused on the history of mathematics, and mathematical connections to the Sunshine State.

Organizers: Ximena Catepillán, Abe Edwards,

**Greg Coxson** 

Sponsors: Committee on Undergraduate Student

Programming (CUSP), HOM SIGMAA

2:00 - 3:20 pm, Room 122/123

Panel: The Art of Publishing in MAA Journals

Organizers: Tom Edgars and Della Dumbaugh
Panelists: Amy Ackerberg-Hastings, *Convergence* 

... and editors of other MAA periodicals

### Thursday, August 3 (continued)

5:00 - 6:20 pm, Room 103/104

#### **TRIUMPHS Workshop**

# Inspiring Great Classroom Discussions by Teaching with Primary Historical Sources

Organizers: Janet Heine Barnett, Abe Edwards,

Dominic Klyve, Daniel E. Otero

Sponsor: HOM SIGMAA

### Friday, August 4

8:00 - 9:15 am, Room 121

# TCPS:<sup>1</sup> Ethnomathematics: Culture Meets Mathematics in the Classroom

Organizers: Ximena Catepillán, Cynthia Huffman,

Amy Shell-Gellasch

Sponsor: HOM SIGMAA

Session Abstract: This session features talks tat present research in Ethnomathematics with a focus on incorporating Ethnomathematics in teaching. Ethnomathematics presents opportunities for increased emphasis on inclusion and diversity at colleges and universities. Ideas and innovations in Ethnomathematics for its use in teaching are welcome.

8:00 - 8:15 am

# Ancient Greek Recognition of Universal Levels of Assessment such as Mastery of Division

Ann von Mehren, Shelby County Schools, Memphis

8:20 - 8:35 am

# Merging Cultural Components in My Math Teaching by Project-Based Learning Method

Lina Wu, Borough of Manhattan Community College-The City University of New York

8:40 - 8:55 am

# Kolams in Graph Theory: A Student Research Project in Southern Indian Ritual Art

Elizabeth Donovan, *Murray State University,* Nathan Hartmann, *Murray State University* 

9:00 - 9:15 am

# Symmetry in the Artwork of Early Indigenous North American Cultures

Cynthia Huffman, Pittsburg State University

10:20 - 10:35 am, Room 117

# Reading the Masters: A Primary Source Project Approach to Learning Analysis and Abstract Algebra

Janet Heine Barnett, *Colorado State University Pueblo*This talk is part of the TCPS "Analysis and Algebra:

Convincing Students They Can Do It"

[Friday afternoon begins on next page.]

<sup>&</sup>lt;sup>1</sup> TCPS = Themed Contributed Paper Session

#### Friday, August 4 (continued)

1:40 - 1:55 pm, Room 121

# Debating Infinitesimals: Transgressing Mathematical Boundaries Through a Classroom Activity Utilizing Primary Historical Sources

Kathleen M. Clark, Florida State University, Mark Watford, Florida State University This talk is part of the TCPS "Research on Undergraduate Mathematics Education."

3:00 - 3:15 pm, Room 105

## **Historical Developments of the Laplace Transform**

Adam Parker, Wittenberg University

This talk is part of the TCPS "Teaching and Learning of Differential Equations."

3:00 - 4:20 pm, Ballroom B & C

#### **Alder Awards Session**

The order of the three talks in this special invited session is not yet known, but one of the three will be:

# Nurturing Students' Mathematical Discourse by Teaching with Primary Source Projects

Abe Edwards, Michigan State University

4:00-6:00 pm, Ballroom A

#### **Invited Paper Session**

#### Mathematics is Not Done in a Vacuum:

#### **Collaborations in the History of Mathematics**

Organizer: Sloan Evans Despeaux

Session Abstract: This invited paper session will feature talks on collaborations. In particular, the talks will focus on collaborations by mathematicians of the past and present-day collaborations by historians of mathematics who study the past. This session will explore the benefits and special challenges that collaborations can bring.

4:00 - 4:20 pm

#### **Collaboration in Ancient and Medieval Times**

Victor Katz, University of the District of Columbia

4:30 - 4:50 pm

# Editorial and Epistolary Collaborations Among Mathematicians

Janet Heine Barnett, CSU Pueblo

5:00 p.m. - 5:20 p.m.

## Beginnings: How to Start-and Sustain-a Mathematics Initiative

Della Dumbaugh, University of Richmond

5:30 p.m. - 5:50 p.m.

# Collaboration Typologies in 19th-century American Mathematics Textbook Series

Amy Ackerberg-Hastings, MAA Convergence

#### Friday, August 4 (continued)

6:00 - 7:30 pm, Ballroom A

#### **HOM SIGMAA Business Meeting & Annual Lecture**

Annual Lecture: Expect the Unexpected: Pioneers Who Promoted Women in Math and Science

Della Dumbaugh, University of Richmond

Abstract: How did a department store magnate and a playwright advance American mathematics and science—and women in these male dominated fields in particular? This talk will explore the lives of Caroline Bamberger Fuld and Clare Booth Luce as we examine the surprising range of personalities that influenced the development of mathematics and science in America in the twentieth century.

### Saturday, August 5

8:00 - 8:50 am, Room 122/123

#### Town Hall: What is a History of Mathematics Course For?

Organizers: Gregory McColm, Fernando Burgos, Fernando Gouvêa, Mile Krajcevsky,

**Ruthmae Sears** 

Session Description: The increasing need for mathematics education raises the question of history of mathematics. Should such courses serve the mathematics, mathematics education, or other program? Are they mathematics courses, history courses, or some kind of hybrid—and if so, what kind? The panel will start a discussion that the audience will be invited to join.

9:00 - 10:20 am, Room 122/123

# Panel: The Convergence of History and Pedagogy in Mathematics

Organizers: Amy Ackerberg-Hastings, Janet H. Barnett

Panelists: Kathleen M. Clark, Abe Edwards,

Dominic Klyve, Danny Otero

Sponsor: MAA Convergence

Session Description: Researchers and educators have long proposed that history can be used to create learning opportunities that support student mathematical learning in various ways. This panel of experts in the art of wedding historical research with effective pedagogy will lead a discussion of recent developments in the use of history to teach mathematics and the field's future prospects and needs.

3:00-5:00 pm, Room 103/104

#### **Read the Masters! Cauchy's Limits**

Organizer: Daniel E. Otero

Sponsors: HOM SIGMAA, ORESME, Arithmos,

The Euler Society, TRIUMPHS

Session Description: All participants at this session will join in reading together, in small groups, from Cauchy's 1823 lecture notes, wherein he first introduced the notion of a limit to provide definitions for continuity of a function and the derivative. A brief talk to place these readings in context will open the session, and a general open discussion will close it.