



# Kappa Mu Epsilon National Mathematics Honor Society

KME 42<sup>nd</sup> BIENNIAL NATIONAL CONVENTION  
April 11 - 13, 2019

Hosted by Maryland Delta Chapter at Frostburg State University in Frostburg, Maryland

Participating Chapters:

Alabama Theta, Jacksonville State University  
Kansas Alpha, Pittsburg State University  
Kansas Beta, Emporia State University  
Kansas Delta, Washburn University  
Maryland Delta, Frostburg State University  
Missouri Beta, University of Central Missouri  
Missouri Theta, Evangel University  
Nebraska Beta, University of Nebraska-Kearney  
New York Lambda, Long Island University Post  
New York Rho, Molloy College  
North Carolina Zeta, Catawba College  
Oklahoma Alpha, Northeastern State University  
Pennsylvania Mu, Saint Francis University  
Pennsylvania Zeta, Indiana University of Pennsylvania  
Pennsylvania Upsilon, Seton Hill University  
Texas Gamma, Texas Woman's University  
Texas Kappa, University of Mary Hardin-Baylor  
West Virginia Alpha, Bethany College

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# OFFICERS OF KAPPA MU EPSILON

## NATIONAL COUNCIL

Brian Hollenbeck, Kansas Beta, President  
Leah Childers, Kansas Alpha, President-Elect  
Mark Hamner, Texas Gamma, Secretary  
David Dempsey, Alabama Theta, Treasurer  
Cynthia Huffman, Kansas Alpha, Historian  
John Snow, Texas Kappa, Webmaster

## THE PENTAGON

Doug Brown, North Carolina Zeta, Editor

## REGIONAL DIRECTORS

Donna Marie Pirich, Pennsylvania Lambda, New England Region  
Pete Skoner, Pennsylvania Mu, Great Lakes Region  
Jamye Curry, Georgia Zeta, South Eastern Region  
Katherine Kime, Nebraska Beta, North Central Region  
John Diamantopoulos, Oklahoma Alpha, South Central Region

## COMMITTEES

### **Auditing Committee**

Dianne Twigger, Missouri Theta, Chair  
Amber Innes, Kansas Beta  
Katherine Kime, Nebraska Beta  
Demetrick McDonald, Maryland Delta  
Rahasya Bharaniah, Kansas Delta  
John Harris, Pennsylvania Mu

### **Awards Committee**

Leah Childers, Kansas Alpha, Chair  
Steve Shattuck, Missouri Beta  
Frank Barnet, Maryland Delta  
Joseph Makowski, West Virginia Alpha  
Rachel Gruber, Pennsylvania Mu  
John Zerger, North Carolina Zeta

### **Nominating Committee**

Rhonda McKee, Missouri Beta, Chair  
Pete Skoner, Pennsylvania Mu  
John Diamantopoulos, Oklahoma Alpha  
Joel Branham Alabama Theta

### **Resolutions Committee**

Adam Fletcher, West Virginia Alpha, Chair  
Derek Noe, Missouri Beta  
Jared Burns, Pennsylvania Upsilon  
Holly Sparkman, Alabama Theta  
Gaspar Porta, Kansas Delta

## Thursday, April 11, 2019

7:00-9:00 p.m.

**Pizza/Ice Cream Reception and Mixer**  
Gira Center (GC) 397

Registration packets will be available.

8:00 p.m.

**National Council Meeting**  
GC 245

## Friday, April 12, 2019

8:00 - 9:00 a.m.

**Registration/Breakfast**  
GC First Floor Lobby

8:30 a.m.

**Awards Committee Meeting**  
GC 155

9:00 a.m.

**First General Session**  
GC 397

Welcome and introductions  
Welcome

Brian Hollenbeck, President, Kappa Mu Epsilon  
Dr. Kim Hixson, Dean of the College of Liberal Arts  
and Sciences, Frostburg, State University

Roll call

Mark Hamner, Secretary, Kappa Mu Epsilon

Filing of delegates

Leah Childers, President-Elect, Kappa Mu Epsilon

Old business

Introduction of new business

Changes to the Constitution

New candidates for Secretary

As arises

9:30 a.m.

**Student Presentations, Session #1**  
GC 397

1-1 "Multiplicative factorization in numerical semigroups"

Matthew Enlow, Missouri Beta  
University of Central Missouri

1-2 "Intersections of Shortest Taxicab Paths in the Sierpinski Carpet "

Rebekah Chase, Missouri Theta  
Evangel University

1-3 "An Analysis of EdReady and Class Attendance at Jacksonville State University"  
Joel Branham and Holly Sparkman, Alabama Theta  
Jacksonville State University

**10:30 a.m.**

**Refreshment Break**  
GC First Floor Lobby

**10:45 a.m.**

**Student Presentations, Session #2**  
GC 397

2-1 "Linear Regression in Pythagorean Football Wins"  
Tim Deyell, Pennsylvania Upsilon  
Seton Hill University

2-2 "The Algebra Behind RSA Encryption"  
Sandy Hussain, New York Lambda  
Long Island University

2-3 "Googling Information Retrieval and SVD"  
Kayla Gill, New York Rho  
Molloy College

2-4 "A Comparison of Modeling Techniques for Behavioral Data"  
Marcus Shell, Alabama Theta  
Jacksonville State University

**12:00 noon**

**Group Picture**  
GC First Floor Lobby  
(or outside)

**12:15 p.m.**

**Lunch**  
Chesapeake Cafeteria

**Meetings of the National Committees**  
Resolutions Committee, Cafeteria  
Auditing Committee, Cafeteria

**2:00 p.m.**

**Section Meetings**  
Student Section, GC 397  
Faculty Section, GC 156

**2:45 p.m.**

**Student Presentations, Session #3**  
GC 397

3-1 "The Additive Property of the Sum-of-Divisors Function"  
Marcia-Mariel Erhart, North Carolina Zeta  
Catawba College

3-2 “Comparing Accuracy and Distance in the sport of Disc Golf”

Katherine Beckley, Kansas Beta  
Emporia State University

**3:30 p.m.**

**Workshops [Select one of the following]**

“Hull’s Hybrid Unit Origami”

GC 222  
Marc Michael, Maryland Delta  
Frostburg State University

“Maya Geometry: Verification of a Right Angle”

GC 245  
John Diamantopoulos, Oklahoma Alpha  
Northeastern State University  
and  
Cynthia Huffman, Kansas Alpha  
Pittsburg State University

“Exploring Game Mechanics in a Math or Stats Setting”

GC 264  
Gaspar Porta, Kansas Delta  
Washburn University

“What Mathematics Forrest Gump Can Teach You About Playing the Lottery”

GC 223  
Ron Wasserstein  
American Statistical Association

**4:15 p.m.**

**Refreshment Break**

GC First Floor Lobby

**4:30 p.m.**

**Workshops [Select one of the following]**

“Hull’s Hybrid Unit Origami”

GC 222  
Marc Michael, Maryland Delta  
Frostburg State University

“Maya Geometry: Verification of a Right Angle”

GC 245  
John Diamantopoulos, Oklahoma Alpha  
Northeastern State University  
and  
Cynthia Huffman, Kansas Alpha

Pittsburg State University

“Exploring Game Mechanics in a Math or Stats Setting”

GC 264

Gaspar Porta, Kansas Delta

Washburn University

“Paths on Polyhedra”

GC 223

John Snow, Texas Kappa

University of Mary Hardin-Baylor

**7:00 p.m.**

**Banquet**

ARMAH

Welcome

Leah Childers, President-Elect

Dinner

Presentation of Mach Award

Brian Hollenbeck, President

Keynote Address

**“Doctor, It Hurts When I p.”**

Ron Wasserstein

American Statistical Association

**Saturday, April 13, 2019**

**8:00 - 8:30 a.m.**

**Registration/Breakfast**

GC First Floor Lobby

**8:30 a.m.**

**Student Presentations, Session #4**

GC 397

4-1 “We’re skewed! Can we test our way out of it?”

Jacob Talkin, Kansas Delta

Washburn University

4-2 “Elliptic Curve Cryptography”

Alissa Whiteley, Maryland Delta

Clarkson University (formerly Frostburg State University)

4-3 “Depressed Cubic Curves with Intersecting Lines”

Ben Junkins, Alabama Theta

Jacksonville State University

**9:30 a.m.**

Awards Committee Meeting, GC 245

Regional meetings, TBA

**10:00 a.m.**

**Refreshment Break**

GC First Floor Lobby

**10:15 a.m.**

**Recent Graduate Panel Discussion**

GC 397

**Moderator:** Marc Michael, Maryland Delta,  
Frostburg State University

Michelle Welch, teacher at Gaithersburg High School

Michael Shannon, technical consultant for IBM

Alissa Whiteley, graduate student at Clarkson University

Daniel Steel, graduate student at West Virginia University

**11:00 a.m.**

**Second General Session**

Brian Hollenbeck, President, presiding

GC 397

Convention Evaluation Forms

Reports of national officers

Doug Brown, Editor, *THE PENTAGON*

John Snow, Webmaster

Cynthia Huffman, Historian

David Dempsey, Treasurer

Mark Hamner, Secretary

Leah Childers, President-Elect

Brian Hollenbeck, President

Reports of sectional meetings

Report of Resolutions Committee

Report of Auditing Committee

Election of Officers

Installation of Officers

Report of the Awards Committee and presentation of awards

Payment of travel vouchers