

SOUTHEASTERN SECTION
centennal section meeting MARCH 10-12, 2022 • BERRY COLLEGE

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## Officers of the Southeastern Section

| Chair |
| :--- |
| Immediate Past Chair |
| Vice Chair for Two Year Colleges |
| Vice Chair for Programs |
| Treasurer |
| Secretary |
| Section Representative to MAA |
| Congress |
| Section Lecturer |
| Newsletter Editors |
| Student Activities Coordinator |
| Historian |
| Webmaster |
| Directors of Section NExT-SE |
| State Director-Alabama |
| State Director-Georgia |
| State Director-North Carolina |
| State Director-South Carolina |
| State Director-Tennessee |

Sarah Raynor (Wake Forest Univ.) Laurie Heyer (Davidson College)
Wei-Kai Lai (USC Salkehatchie)
Andy Miller (Belmont Univ.)
Tom Fitzkee (Francis Marion Univ.)
Julie Barnes (Western Carolina Univ.)
Emily Hynds (Samford Univ.)

Naiomi Cameron (Spelman College)
Enahoro Iboi (Spelman College)
Lauren Grimley (Spring Hill College)
Karen O'Hara (High Point Univ.)
Sloan Despeaux (Western Carolina Univ.)
Brad Fox (Austin Peay State Univ.)
Kristen Abernathy (Winthrop Univ.) Zach Abernathy (Winthrop Univ.) Brad Schleben (Belmont Univ.)

Frank Patane (Samford Univ.)
Hua Wang (Georgia Southern Univ.)
Justin Allman (Wake Forest Univ.)
Emily Thomas (Charleston Southern Univ.)
Bryan Dawson (Union Univ.)

February 28, 2022

Dear Attendees:

On behalf of Berry College, the Berry College Department of Mathematics and Computer Science and myself, I am delighted to welcome you to the Centennial Meeting of the Southeastern Section of the Mathematical Association of America. It is a privilege to host thiscentennial gathering!
We are proud of Berry's role in hosting the centennial meeting, and we are grateful to the outstanding faculty and staff in Berry's Department of Mathematics and Computer Science whocoordinated this meeting.

To the students attending, we wish you the best of luck in your educational pursuits, and we hopethat you leave this meeting with a new enthusiasm and appreciation for the field of mathematicalsciences.
To the faculty in attendance, thank you for the great work you do to educate students and advance knowledge in your field. We hope that you each learn something of value during the meeting that you can take back to your own schools and classrooms.

Enjoy the time you spend here on Berry's campus, in the greater Berry and Rome community, and thank you for attending the Centennial Meeting of the Southeastern Section of the Mathematical Association of America.

With all best wishes,


Dr. Mary K. Boyd
Provost

## Plenary Speakers



Jennifer Quinn
President of the MAA
University of Washington, Tacoma


Tim Chartier Davidson College
2021 MAA-SE Distinguished Teaching Award Winner

## Solving Mathematical Mysteries

Much as mysteries in fiction consider evidence, find common patterns, and draw logical conclusions to solve crimes, mathematical mysteries are unlocked using the same tools. This talk exposes secrets behind a numerical magic trick, a geometric puzzle, and an unknown quantity to find a fascinating pattern with connections to art, architecture, and nature.

## Dream Classroom

Think of some of your favorite memories of being in mathematics class. They often capture elements of your dream classroom - as a student and/or teacher. Often, such moments are achieved when the students and professor enter some math groove of togetherness and community. In this talk, we'll discuss our hopes for the classroom and how to enlarge our dreams so we can potentially increase the frequency of dreams being realized and so a sense of community is shared inclusively. We all play a role in a classroom environment and, as in class, we'll learn together in this talk.


Marissa Loving
Georgia Institute of Technology

## Surfaces: BIG and small

As a geometric group theorist, my favorite type of manifold is a surface and my favorite way to study surfaces is by considering the mapping class group, which is the collection of symmetries of a surface. In this talk, we will think bigger than your average lowdimensional topologist and consider surfaces of infinite type and their associated "big" mapping class groups.

## Distinguished Lectures for Students Supported by a grant from the MAA Tondeur Career Initiative



Ally Skinner
Financial Planning \& Analysis Louisiana-Pacific Corporation

## Mathematics in the Manufacturing Industry

I present my journey to choosing Mathematics and a career in the manufacturing industry. Examples are submitted of how Mathematics and Statistics were used in the various roles. These examples extend from responsibilities of an Accounts Receivable \& Trade Credit department, to the Data \& Analytics department, and finally to the Financial Planning \& Analysis department. Future career paths are proposed to suggest other areas in which students could utilize their degree.

How do the skills from studying math play a role in the workplace and lead to different career paths?

Christian Okitondo
Belmont University, University of Georgia

Berry College<br>Mt. Berry, GA<br>Thursday-Saturday, March 11-12, 2022

https://maasoutheastern.org/2022-section-meeting/

## Building and Local Information:

Throughout this program the following abbreviations are used:
MAC McAllister Hall
Krannert Krannert Student Center

WiFi: BerryGuest (no password, but must accept conditions)
Security:
Non-emergency line: (706) 368-6999
Emergency: (706) 236-2262

## Thursday, March 10

| 2:30-4:30 | Project NExT-SE, MAC A107 |
| :--- | :--- |
|  | Open networking and discussion on neat teaching ideas, lessons learned in the <br> switch from in-person to virtual, and the future of mathematics education post- <br> pandemic |
| 6:30-9:30 | Executive Committee Dinner and Meeting, MAC A115 |
| 7:00-7:30 | Student Treasure Hunt Check-In, MAC A107 |
| 7:30-9:30 | Student Treasure Hunt, MAC <br>  <br>  <br>  <br>  <br>  <br> Organizers: Julie Barnes and Treasure Hunt Planning Team (see back of program <br> for full listing) |


| Friday, March 11 |  |  |
| :---: | :---: | :---: |
| 7:30-4:30 | Registration and refreshments, Lobby, Krannert Student Center |  |
| 8:00-11:30 | Project NExT-SE Sessions, MAC A107 |  |
|  | 8:00-8:30 | Arrival/coffee |
|  | 8:30-9:20 | Nature of Mathematics: Does It Matter? <br> Dr. Lucy Watson (Belmont University), Dr. Candice M. Quinn (University of North Alabama) |
|  | 9:30-10:20 | Generating and Supporting Creative Friction for Our Mathematics Courses, <br> Dr. Mike Pinter (Belmont University) |
|  | 10:30-11:30 | Humanizing Assessment, <br> Dr. Jennifer Quinn (University of Washington Tacoma) |
| 8:00-11:45 | Math Jeopardy! MAC 102, 103, 106 |  |
|  | 8:00-11:00 | Preliminary Rounds <br> Rounds begin at 8:00, 8:55, and 9:50 as needed |
|  | 11:00-11:45 | Semifinals |
| 9:00-11:00 | Distinguished Lectures for Students, MAC 100 |  |
|  | 9:00, DS. 1 Mathematics in the Manufacturing Industry, Ally Skinner (Louisiana-Pacific Corporation) |  |
|  | 10:00, DS. 2 How do the skills from studying math play a role in the workplace and lead to different career paths? Christian Okitondo (University of Georgia) |  |
| 10:00-11:00 | Workshop, MAC 107 <br> Elements for Successful Courses in the Digital Age, <br> Sydney Smith, Senior Educational Courseware Specialist (Hawkes Learning) |  |
| 11:45-12:30 | Lunch Break: Free pizza for all in the Krannert Ballroom Graduate School and Career Fair, Krannert 250 <br> Networking, professional development, career planning. <br> SE COMMIT Informal Gathering, Krannert 217 <br> Joain a local network of Inquiry-Based Learning practitioners for lunch and informal discussion. All forms of IBL are welcome. |  |
| 12:45-1:45 Emi <br> Dr. Ali | GS. 1 Gen Hynds, Sectio Suroviec, <br> "Solv Jen | eral Session I, Krannert Ballroom <br> nepresentative to MAA Congress, presiding Icome from Berry College an, School of Mathematical and Natural Sciences <br> Invited address: <br> ing Mathematical Mysteries" <br> nifer Quinn, President, MAA <br> MAA Section Visitor |

## Happy Hundredth: Celebrating the Southeastern Section Centennial, MAC 102

Organizers: Brian Beasley (Presbyterian College), Sloan Despeaux (Western Carolina
University), David Stone (Georgia Southern University)., Moderator:

| Time | No. | Title | Author | Affiliation |
| :---: | :---: | :--- | :--- | :--- |
| 2:00 PM | HUN.1 | The Roaring Twenties: Early Years <br> of the Southeastern Section | Brian Beasley | Presbyterian <br> College |
| 2:20 PM | HUN.3 | This...Is...Math Jeopardy! | Jeffrey S. Powell | Samford <br> University |
|  |  | HUN.2 | Additional author: Michael C. Berry (University of Tennessee-Knoxville) <br> Present, and Future |  |
|  |  |  |  |  |
| 3:00 PM | HUN.4 | Teaching: Doing Our Part to Shape <br> Lives Through Mathematics | Martha Abell | Georgia <br> Southern <br> Unie Barnes <br> Univerna |
| 3:20 PM | HUN.5 | Past as Prologue: Our Next <br> Hundred Years | Jeff Knisley | East Tennessee <br> State University |


| Recreational Mathematics I, MAC 103 <br> Organizer: Timothy Goldberg (Lenoir-Rhyne University) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Time | No. | Title | Author | Affiliation |
| 2:00 PM | REC1.1 | Wordle and Entropy | Jeffrey Clark | Elon University |
| 2:20 PM | REC1.2 | 3 by 3 magic square type sliding game | Vigneswaran <br> Madappan <br> Chinnasami | University of South Carolina Salkehatchie |
|  |  | Additional author: Dr. Wei-Kai Lai |  |  |
| 2:40 PM | REC1.3 | Interconnectedness Of Math and Art: Exploration of the Fibonacci Sequence | Brianna Bradley | Francis Marion University |
| 3:00 PM | REC1.4 | "It's not exactly setting your money on fire": Exploring the teaching of expected value contextually | Ryan Fox | Belmont University |


| You Keep Using That Word I, MAC 106 <br> Organizers: Jeneva Clark (University of Tennessee, Knoxville), Jonathan Clark (University of <br> Tennessee, Knoxville) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Time | No. | Title | Author | Affiliation |
| 2:00 PM | WORD1.1 | "There Are No Words To Contain All My Wisdom": Concept Image vs. Concept Definition in Mathematics | Susanna <br> Molitoris-Miller | Kennesaw <br> State University |
| 2:20 PM | WORD1.2 | "Be creative!" A discussion of mathematical creativity and its appearance in an introduction-to-proofs course | Amanda Lake Heath | Middle <br> Tennessee <br> State University |
| 2:40 PM | WORD1.3 | Beyond the Cloak: The Hidden Meanings of "Rigor" | Ebenezer Bonyah | Akenten <br> Appiah Menka University of Skills <br> Training and Entrepreneurial Development |
|  |  | Additional author: Jeneva Clark, University of Tennessee - Knoxville |  |  |
| 3:00 PM | WORD1.4 | Getting Back To Normal | Doug Daniel | Presbyterian College |

## Talks by Graduate Students, MAC 107

Organizers: Jon Ernstberger (LaGrange College), Stacey Ernstberger (LaGrange College),
Kristen Abernathy (Winthrop University)

| Time | No. | Title | Author | Affiliation |
| :---: | :---: | :--- | :--- | :--- |
| 2:00 PM | GRAD.1 | Finding a Julia Set from a Forward <br> Invariant Lamination | Brittany <br> Burdette | University of <br> Alabama <br> Birmingham |
| 2:20 PM | GRAD.2 | Group Theoretic Model Repair | William Cocke | Augusta <br> University <br> School of <br> Computer and <br> Cyber Sciences |
|  |  | Additional author: Paul Attie, Augusta University School of Computer <br> and Cyber Sciences |  |  |
| 2:40 PM | GRAD.3 | Hadamard Matrices: What are <br> they Good For? | Shuler Hopkins | University of <br> Tennessee, <br> Knoxville |
| 3:00 PM | GRAD.4 | An Algorithm for Constructing the <br> Canonical Lift of Twisted Edwards <br> Curves | William Bitting | University of <br> Tennessee |
|  | Additional author: Luis Finotti, University of Tenessee |  |  |  |


| Contributed Paper Session I, MAC 100 <br> Moderator: Zach Abernathy (Winthrop University) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Time | No. | Title | Author | Affiliation |
| 2:00 PM | CP1.1 | Conditions for Fairness Anomalies in Instant-Runoff voting | Adam GrahamSquire | High Point University |
| 2:20 PM | CP1.2 | Modeling DNA Self-Assembly with Graph Theory | Jessica Sorrells | Converse <br> University |
| 2:40 PM | CP1.3 | Similarity solutions for a class of unsteady convective heat transfer problems. | Anilkumar Devarapu | Department of Mathematics, University of North Georgia, Gainesville, GA |
| 3:00 PM | CP1.4 | Optimal Control of an HIV Model with Gene Therapy and Latency Reversing Agents | Zach Abernathy | Winthrop University |
|  |  | Additional authors: Kristen Abernathy (Winthrop University), Andrew Grant* (Winthrop University), Paul Hazelton* (Winthrop University) (* denotes undergraduate co-authors) |  |  |


| Contributed Paper Session II, MAC 111 <br> Moderator: <br> Balaram Ghimire (Alabama State University) |  |  |  |  |  |
| :---: | :---: | :--- | :--- | :--- | :---: |
| Time | No. | Title | Author | Affiliation |  |
| 2:00 PM | CP2.1 | On Singular Perturbations <br> Problems for Neutral Equations | Dr. Zephyrinus <br> Okonkwo | Department of <br> Mathematics, <br> CS and Physics, <br> Albany State <br> University |  |
| 2:20 PM | CP2.2 | The Nearly Universal, Easy-to-use <br> Level Comparison Test for Series | C. Bryan Dawson | Union <br> University |  |
| 2:40 PM | CP2.3 | A modified Lotka-Volterra <br> predator-prey system | Kwadwo Antwi- <br> Fordjour | Samford <br> University |  |
| 3:00 PM | CP2.4 | New Problems for the Method of <br> Undetermined Coefficients | James Cook | University of <br> West Alabama |  |
|  | Additional author: William Cook of Appalachian State University |  |  |  |  |
| 3:20 PM | CP2.5 | The closed-form particular <br> solutions for the Laplace operator <br> using oscillatory radial basis <br> functions in 2D. | Balaram Ghimire | Alabama State <br> University |  |
|  | Additional author: A. R. Lamichhane |  |  |  |  |


| Undergraduate Paper Session I, MAC 113 |  |  |  |  |
| :---: | :---: | :--- | :--- | :--- |
| Time | No. | Title | Author | Affiliation |
| 2:00 PM | UT1.1 | Snell's Law via a Barbell Model | Hope Lissitz | King University |
| 2:20 PM | UT1.2 | On the Rate of Polarization of <br> Decreasing Monomial Codes <br> Beyond the Binary Field | Madelyn Parsons | Charleston <br> Southern <br> University |
|  | Additional authors: Emmanuel Skora, Furman University; Dr. Felice <br> Manganiello, Clemson University; Dr. Jessalyn Bolkema, California State <br> University, Dominguez Hills |  |  |  |
| 2:40 PM | UT1.3 | Four positive equilibria in a model <br> for sterile and wild mosquito <br> populations | Maxwell Fox | University of <br> Alabama, <br> Huntsvill |
|  | Additional author: Ai, Shangbing, Professor of Mathematical Sciences, <br> UAH |  |  |  |
| 3:00 PM | UT1.4 | Comparison of Dimension <br> Reduction Methods on <br> Hyperspectral Images | Noah Wells |  |
| 3:20 PM | UT1.5 | Period Analysis of Astronomical <br> Photometric Data | Aaron Reynolds | The Citadel |


| Undergraduate Paper Session II, MAC 115 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Time | No. | Title | Author | Affiliation |
| 2:00 PM | UT2.1 | Malicious URLs | Angela Brobson | Converse <br> University |
|  |  | Additional authors: Previous Converse University students Sydney Allen and Kimberly Leone, and current Converse University student Madison Reece-Henderson |  |  |
| 2:20 PM | UT2.2 | Data-Driven Retention and Advertising for Camp Kippewa | Jovana Mitic | Converse <br> University |
|  |  | Additional author: Faculty mentor Dr. Amanda Mangum |  |  |
| 2:40 PM | UT2.3 | A Deep Learning based Image Optimization Approach to Authenticate Masked Faces | Robert Roser | The Citadel |
|  |  | Additional author: Dr. Prosenjit Chatterjee |  |  |
| 3:00 PM | UT2.4 | Implicit Methods for Solving the Reactive Transport Equation | Carson Morris | Augusta University |
|  |  | Additional author: Anastasia Wilson, Augusta University |  |  |
| 3:20 PM | UT2.5 | Statistical Analysis of Wildfires | Madisson Russell | Austin Peay State University |
|  |  | Additional author: Dr. Ramanjit Sahi |  |  |

4:15-5:20
GS. 2 General Session II, Krannert Ballroom
Sarah Raynor, MAA-SE Section Chair, presiding. Section Awards.
Invited address:
"Dream Classroom," Tim Chartier, Davidson College, 2021 Distinguished Teaching Award Winner

5:30-6:00 MAA-SE Business Meeting, Krannert Ballroom
Stay for some brief section business, including announcement of new officers

## Saturday, March 12

7:30-10:30
Registration and refreshments, Lobby, Krannert Student Center

8:45-9:45 GS. 3 General Session III, Krannert Ballroom
Laurie Heyer, Immediate Past Chair of MAA-SE, presiding

Invited Address:
"Surfaces: BIG and small"
Marissa Loving, Georgia Institute of Technology

7:30-10:10 Undergraduate Poster Setup, Krannert Ballroom
10:10-10:45 Undergraduate Poster Judging, Krannert Ballroom
10:45-12:00 Undergraduate Poster Session, Krannert Ballroom
Organizer: Karen O’Hara (High Point University)
Undergraduate Poster Titles

| No. | Title | Author | Affiliation |
| :---: | :--- | :--- | :--- |
| UP.1 | Surviving Ragnarok: Modeling <br> humanity's chance of survival after <br> a major disaster event | Stephen Creamer | Wofford College |
|  | Additional authors: Rachel Grotheer (Wofford College) |  |  |
| UP.2 | The Best Way to Defend Against <br> the Patriots Passing Offence | Mathew Daugomah | Mathew Daugomah |
| UP.3 | Comparative Study of Gaussian <br> Mixtures and Clustering on Health <br> Data | Sarah Harkins | Francis Marion <br> University |
| UP.4 | The Fibonacci and Lucas <br> Interpolating Polynomials | Ernest James | The Citadel |


| UP. 5 | Statistical Analysis of the Effect of Music on Human Brain Activities | Eric Lilling |  |
| :---: | :---: | :---: | :---: |
|  | Additional authors: Dr. Bo Li (research advisor) |  |  |
| UP. 6 | Implementation of Least Squares Method To A Navier-Stokes Solver | Jada Lytch | Francis Marion University |
|  | Additional authors: Ja'Nya Breeden, Francis Marion University Undergraduate Student; Taylor Boatwright, Francis Marion University, Undergraduate Student |  |  |
| UP. 7 | Differential Equations Relating to the Infectious Disease La Crosse Encephalitis | Audrey Meyers | Western Carolina University |
| UP. 8 | Can You Belize What We Did? | Briana Monarca | Francis Marion University |
|  | Additional authors: Taylor Boatwright - Francis Marion University |  |  |
| UP. 9 | Measuring Gerrymandering: Investigating the distributions of party ratios for districting techniques. | Amy Moore | Elon University |
|  | Additional authors: Dr. Todd Lee \& Dr. Crista Arangala, Elon University |  |  |
| UP. 10 | An Analysis of Numerical Weather Prediction and Methods for Decreasing Error | Madelyn Parsons | Charleston Southern University |
|  | Additional authors: Dr. Ryan Thomas, Charleston Southern University |  |  |
| UP. 11 | Ulam Numbers | Aaron Reynolds | The Citadel |
| UP. 12 | Rational-Logarithmic 4th Order Method and Application to a FirstOrder Pantograph Equation | Joseph Semler | Austin Peay State University |
|  | Additional authors: Samuel Jator, Ph.D |  |  |
| UP. 13 | Upper Bounds for Semiprime Arithmetic Sequences | Sam Uselton | Belmont University |
| UP. 14 | Open Questions in Rotational Sets and Itineraries | Andrew E. Vick | Lee University |
| UP. 15 | Numerical study of electron plasma crystallization using point vortices | Amaya Brinson | North Carolina A\&T State University |
|  | Additional authors: Ling Xu |  |  |

## 10:00-12:00 Concurrent Special and Contributed Sessions

| $\|$Recreational Mathematics II, MAC 103 <br> Organizer: Timothy <br> Goldberg (Lenoir-Rhyne University) |
| :--- |
| Time |
| 10:00 AM |


| 10:20 AM | REC2.2 | A Miraculous Shortcut: Complete <br> Binary Trees and Optimal Pebble <br> Domination | Fabian Salinas | Furman <br> University |
| :--- | :--- | :--- | :--- | :--- |
|  |  | Additional authors: Thomas Lewis (Furman University) |  |  |
| 10:40 AM | REC2.3 | Poincare's Geometry via <br> Pythagoras' Theorem | Andrew Simoson | King University |
| 11:00 AM | REC2.4 | Dimension of Self-Similar Fractals | Melissa Glass | High Point <br> University |

You Keep Using That Word II, MAC 106
Organizers: Jeneva Clark (University of Tennessee, Knoxville), Jonathan Clark (University of Tennessee, Knoxville)

| Time | No. | Title | Author | Affiliation |
| :---: | :---: | :--- | :--- | :--- |
| 10:00 AM | WORD2.1 | Word Choice in Upper Level <br> Proof Courses | Ashley Johnson | University of <br> North Alabama |
| 10:20 AM | WORD2.2 | Engaging Critical Thinking in <br> Non-Euclidean Geometry | Jordan Kirby | Middle <br> Tennessee <br> State <br> University |
| 10:40 AM | WORD2.3 | "How Do You Feel?" <br> Phenomenography, <br> Phenomenology, and Student <br> Experiences with Math | Jonathan Clark | University of <br> Tennessee, <br> Knoxville |
| 11:00 AM | WORD2.4 | What You Do Not Smell is Called <br> Elegance. | Brooke Denney | University of <br> Tennessee, <br> Knoxville |

Additional authors: Jonathan Clark, University of Tennessee Knoxville

| Contributed Paper Session III, MAC 102 <br> Moderator: J.C. Price (Georgia Gwinnett College) |  |  |  |  |
| :---: | :---: | :--- | :--- | :--- |
| Time | No. | Title | Author | Affiliation |
| 10:00 AM | CP3.1 | Flat fully augmented links are <br> determined by their <br> complements. | Christian <br> Millichap | Furman <br> University |
| $10: 20$ AM | CP3.2 | Additional authors: Rolland Trapp <br> (California State, San Bernardino) | A Principle-Weighted Penalized <br> Regression Model and its <br> Application | Mingwei Sun |
| $10: 40$ AM | CP3.3 | Exploring data from the chromatic <br> graph polynomial with BallMapper | Dan Scofield | Srancis Marion <br> University |
|  |  | Additional authors: Radmila <br> Sazdanovic, North Carolina State <br> University |  |  |


| 11:00 AM | CP3.4 | Subgraphs of Gallai-Colored <br> Complete Graphs Spanned by <br> Edges Using at Most Two Colors | Mark Budden | Western <br> Carolina <br> University |
| :--- | :--- | :--- | :--- | :--- |
|  |  | Additional authors: Tucker <br> Wimbish |  |  |
| 11:20 AM | CP3.5 | Counting Forests and Star Graphs | J.C. Price | Georgia <br> Gwinnett <br> College |

## Contributed Paper Session IV, MAC 107

Moderator: Jing Wang (Christian Brothers University)

| Time | No. | Title | Author | Affiliation |
| :---: | :---: | :--- | :--- | :--- |
| 10:00 AM | CP4.1 | Student Created Review Videos | Nicole Panza | Francis Marion <br> University |
| 10:20 AM | CP4.2 | Interdisciplinary Interventions to <br> Use in Algebra Courses | Caroline Maher- <br> Boulis | Lee University |
| 10:40 AM | CP4.3 | Group Activities for a Mid-Level <br> Biomathematics Course | Amanda <br> Mangum | Converse <br> University |
| 11:00 AM | CP4.4 | Project Outcomes of Affordable <br> Learning Georgia Textbook Grants | Dr. Zephyrinus <br> Okonkwo | Albany State <br> University |
|  | Additional authors: Dr. Anilkumar Devarapu, University of North Georgia |  |  |  |


| Contributed Paper Session V, MAC 111 <br> Moderator: <br> Diego Ramirez (Brenau University) |  |  |  |  |
| :---: | :---: | :--- | :--- | :--- |
| Time | No. | Title | Author | Affiliation |
| 10:00 AM | CP5.1 | Biplanarity of Subgroup Lattices <br> for Finite Groups | Jessie A. Hamm | Winthrop <br> University |
| 10:20 AM | CP5.2 | On The Eigenvalues of Hermitian <br> Matrices | Earl Russell <br> Barnes | Georgia Tech <br> (Retired) |
| 10:40 AM | CP5.3 | When is a field defined by a <br> reciprocal polynomial? | Chad Awtrey | Samford <br> University |
|  | Additional authors: Gwynnie Hornibrook (Samford University) |  |  |  |
| 11:00 AM | CP5.4 | On the asymptotics of some <br> strongly damped beam equations <br> with structural damping | Joe Barrera | Converse <br> University |
| 11:20 AM | CP5.5 | Monotone iterative techniques for <br> Caputo fractional integro- <br> differential IVPs | Diego Ramirez | Brenau <br> University |


| Undergraduate Paper Session III, MAC 113 |  |  |  |  |
| :---: | :---: | :--- | :--- | :--- |
| Time | No. | Title | Author | Affiliation |
| 10:00 AM | UT3.1 | Finding the Genus of Cayley <br> Graphs on Billiard Surfaces | Andrew E. Vick | Lee University |
| 10:20 AM | UT3.2 | An Exploration of Odd Prime <br> Graph Labelings | Holly Abrams | Austin Peay <br> State University |
|  | Additional authors: Dr. Brad Fox |  |  |  |
| 10:40 AM | UT3.3 | A Variation on Multicolor Rado <br> Numbers | Bryant Collins | Western <br> Carolina <br> University |
|  |  | Additional authors: Mark Budden (Western Carolina University) |  |  |


| Undergraduate Paper Session IV, MAC 115 |  |  |  |  |
| :---: | :---: | :--- | :--- | :--- |
| Time | No. | Title | Author | Affiliation |
| 10:00 AM | UT4.1 | That's Impossible! An Exploration <br> of Three Famous Greek <br> Constructions | Lisa Reed | Union <br> University |
| 10:20 AM | UT4.2 | The Derivative of a Solution to a <br> Third Order Parameter Dependent <br> Boundary Value Problem on a <br> Time Scale | William Jensen | The Citadel |
| 10:40 AM | UT4.3 | Quasi-positive curvature on <br> Bazaikin spaces | Evan Sherman | The University <br> of Tennessee at <br> Martin |
|  |  | Additional authors: Dr. Jason DeVito | Caroline Tvardy | Belmont <br> University |
| 11:00 AM | UT4.4 | Incompleteness and the Rise of <br> Modernism | Francis Marion <br> University |  |
| 11:20 AM | UT4.5 | Simulating Dislocation Densities <br> with Finite Element Analysis | Ja'Nya Breeden |  |
|  | Additional authors: Jay Gopalakrishnan (Portland State University), Dow <br> Drake (Portland State University), Saurabh Puri (Microstructure <br> Engineering) |  |  |  |

12:15-1:15 Math Jeopardy! Final Round, Krannert Ballroom
Thanks to Ron Taylor and the Math Jeopardy! Team (see back of program for full listing)
Announcement of Student Prize Winners

## Index of Speakers

Only first authors listed; for undergraduate posters see pp. 11-12.
Legend:

| GRAD | Talks by Graduate Students | WORD | You Keep Using That Word |
| :--- | :--- | :--- | :--- |
| HUN | Happy Hundredth: Celebrating the <br> Southeastern Section Centennial | CP | Contributed Paper Sessions |
| REC | Recreational Mathematics | UR | Undergraduate Paper Sessions |


| Last Name | First Name | Talk No. | Day | Time | Email |
| :--- | :--- | ---: | :--- | :--- | :--- |
| Abell | Martha | HUN.4 | Fri | $3: 00$ | martha@georgiasouthern.edu |
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|  |  |  |  |  |  |


| Last Name | First Name | Talk No. | Day | Time | Email |
| :---: | :---: | :---: | :---: | :---: | :---: |
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## Math Jeopardy Team

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Question Writers

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Jeffrey Powell Samford University
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# Join us next year for the MAA-SE 102 ${ }^{\text {nd }}$ Annual Meeting 



# Hosted by <br> Coastal Carolina University, Conway, SC March 9-11, 2023 



## Notes

## Notes

