



Southeastern Section Newsletter

Spring & Fall 2020
Volume 39 Number 1

**IMPORTANT
SECTION MEETING INFORMATION:
VIRTUAL MEETING
MARCH 6 & 13, 2021**

Meeting Information: Page 46

LOOK INSIDE!

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The deadlines for items to be included in each issue are March 1 and November 1, respectively. Departmental News appears in the November newsletter only and is solicited from Department liaisons.

Material may be submitted to the editor on paper or by email, although email is preferred. Currently the newsletter is produced using Mac Pages, which can import plain text files or files produced by most word processing software.

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Section Calendar

| | |
|--------------------|--|
| January 6-9, 2021 | MAA-AMS Joint Mathematics Meetings (Happening Virtually) |
| March 6 & 13, 2021 | MAA Southeastern Section Meeting (Happening Virtually) |
| August 4-7, 2021 | MAA MathFest, Sacramento, CA / virtual |
| January 5-8, 2022 | MAA-AMS Joint Mathematics Meetings, Seattle, WA |

From the MAA-SE Representative



Prepared by Tim Chartier

Fall 2020

This newsletter comes in a time when so much of our world is virtual, our connections occur electronically, and our teaching and scholarship offer new challenges. It's also a time when the MAA community offers support in uniquely important and timely ways. From posts on MAA Connect that aid my virtual teaching to emails and Zooms with friends in our section for support, the MAA plays an important role in my life – mathematically and beyond. As such, I want to highlight ways the MAA can support you and you can aid the MAA.

I encourage you to view the 2019 MAA Impact Report at:

<https://www.maa.org/about-maa/maa-2019-impact-report>

This resource can update you on those MAA initiatives that highly interest you. It can also inform you about the many activities of the MAA. There may be an activity that you, a student or colleague could join.

Regarding impact, the MAA is collecting stories of members. If you are willing to share, please visit:

<https://forms.gle/Uc36uH3MZt4XccTc8>

A common thread in many stories is how involvement in the MAA creates connections, community, and memories. Want to be more involved or help someone else plug into the MAA, visit [maa.org/GetInvolved](https://www.maa.org/GetInvolved).

As for ways you can support the MAA, be active on MAA Connect (<https://connect.maa.org/home>). There are a number of communities that you can join including communities for SIGMAAs, our section and the entire MAA membership. You can comment on posts and post your questions and comments. I've posted several times and benefited greatly from the community.

Finally, Deanna Haunsperger, MAA past-president, launched micro-volunteering this fall, which are volunteer opportunities requiring smaller commitments of time, sometimes only an hour or two. You can find posts in the MAA Micro-Volunteering community on MAA Connect. Posts have included requests for contest proctors and judges and speakers for department colloquia. Would you like a speaker for your students? Various offerings are posted. Want to offer a service? Post your offering to the community. Take a look!

In these uncertain times, I'm grateful to the MAA nationally and in our section. We may be in a remote world but, we are not alone.

State Director Announcements

From Frank Patane, State Director of Alabama

The 2020 MAA Alabama State Dinner was held on February 14, 2020 at the University of South Alabama in Mobile, Alabama. The banquet speaker was Emily Hynds of Samford University.

The 2021 MAA Alabama State Dinner may be held virtually due to Covid-19, and no official dates are set at this time. Discussions and preparation to hold the MAA SE 2021 meeting at the University of North Alabama have been underway. Again due to the uncertainty arising from Covid-19, this meeting might be held virtually.

From Hua Wang, State Director of Georgia

The 2020 Georgia State luncheon was held on February 22, 2020, in conjunction with the 6th Eagle Undergraduate Mathematics Conference at Georgia Southern University, Statesboro, GA. There were over 120 registered participants and 23 undergraduate student presenters from 16 colleges and universities. Dr. Brian Hopkins from Saint Peter's University gave the MAA State Luncheon Address "Dice, Stamps, and Counting: Putting Polynomials to Work".

The next State Luncheon of Georgia is planned for spring 2021. In the past the event has always been associated with a regional undergraduate math conference. In the case that an in-person meeting is not feasible, we are prepared to have a virtual conference and virtual luncheon lecture.

From Laura Steil, State Director of North Carolina

The MAA North Carolina State Meeting will be held virtually on Tuesday, March 16, 2021, 7-8:30pm. The speaker will be Dr. Sarah Koch from the University of Michigan. Information on registration will come in early Spring 2021. Many thanks to the Lenoir Rhyne University Math Department for organizing the event.

From Nicole Panza, State Director of South Carolina

The 2019 State Dinner of South Carolina was held on November 8, 2019 and was hosted by Columbia College in Columbia, SC. The speaker was Alex Kasman from College of Charleston. His talk was entitled Solitons - At the Intersection of Algebraic-Geometry and Mathematical Physics. The dinner was held in conjunction with the Carolina Math Seminar. Many thanks to Dr. Rigoberto Florez of The Citadel and Dr. Gabi Atim of Columbia College for their hard work in organizing this year's dinner. The partnership of the State Dinner and CMS has worked well for the past three years and we plan to continue it.

The 2020 State Dinner of South Carolina has been postponed until spring 2021. It was originally scheduled to take place in early November at The Citadel with the fall CMS meeting. The hope is to have an in-person meeting and dinner in the spring. If in-person is not possible, we will work toward a virtual state dinner instead.

From Bryan Dawson and Ben Ntatin, Current and Former State Directors of Tennessee

The 129th Meeting of the Tennessee Academy of Science meeting was held FRIDAY, November 22, 2019 at Columbia State Community College in Columbia, TN.

The Tennessee Academy of Science Eastern Collegiate Division Meeting will be held on Friday, April 24, 2020 at 12:30 p.m. on the campus of Pellissippi State Community College. The dates for the Middle Tennessee Collegiate Meeting and the Western Tennessee Collegiate Division Meeting of the Tennessee Academy of Science are not public at this time. [Note: these meetings were cancelled after the original submission of this report.]

The 2020 Meeting of the Tennessee Junior Academy of Science meeting will be held April 17th, 2020 in Nashville—Tennessee State University.

STAY CONNECTED WITH THE SOUTHEAST SECTION!

The MAA Southeastern Section now shares information and media from all our activities on Twitter (@maasoutheast) and Facebook (www.facebook.com/MAASoutheast/). Follow us on Twitter and Like us on Facebook!

For those looking to be more involved with the organization of the section, there's a public Facebook Group for discussion (<https://facebook.com/groups/370619956452453/>).

LOOKING FOR A GREAT MATHEMATICS SPEAKER?

Invite the Section Lecturer to your campus!

Many think the Section Lecturer only delivers an address at the Annual Meeting of the Section, but this person also visits individual institutions within the Section.

Ron Taylor is the 2020-2021 Section Lecturer. Contact him at rtaylor@berry.edu.

Make your arrangements today!

Spring Executive Committee Meeting Minutes



March 13, 2020

4:33 pm

Online Meeting

Catherine Matos, recording

Present: Jeff Clark, Catherine Matos, Laurie Heyer, Kristen Abernathy, Zach Abernathy, Karen O'Hara, Bryan Lai, Andy Miller, Frank Patane, Molly Fenn, Laura Steil, Brad Fox, Tim Chartier, Sloan Despeaux, Jessica Sorrells, Nicole Panza, Tom Fitzkee.

The meeting began at 4:33 pm.

The Chair updated the executive committee on the 2020 MAA-SE. There were 357 people pre-registered for the meeting before it was cancelled due to COVID-19. Laurie thanked Karen for High Point's hard work organizing the meeting and asked her to convey our thanks and disappointment for having to cancel. Plenary speakers are planning to record talks. Teaching award speakers asked if they could postpone talks until next year, which poses a scheduling difficulty, but we are not due for any section visitors next year, so it may be workable. Andy Miller stated we could do it if they were paired up with 20 minute talks. His concern was having a lot of similar teaching talks. Jeff Clark suggested seeing if we could have some of the talks at MathFest instead. Tim Chartier will contact MAA and ask.

Laurie stated that we'll plan to have Julie Barnes and Nicole Panza present in person at next year's meeting in the regular plenary. Matt and Ray will record something that can be posted on MAA Connect. The plan is to give everyone who wants to give a talk the chance to do that, which means still awarding Patterson Prize for talks and posters, if it is feasible to get people to go online and judge. Karen stated it may be easier to find judges to do this. 62% said they were willing to share materials online in some way.

Some workshops are proceeding online and others are not. Three workshops were interested in rescheduling later online. Some of the special session organizers were willing to host their session online, others were not. Proposed having a session or even just a Q&A session on teaching online, to help people with the move that many campuses are making to online instruction for the next several weeks. Those sessions would be recorded and posted on MAAConnect. Andy Miller volunteered to moderate if needed. Tim Chartier is interviewing Scott Kim about ambigrams tomorrow, and should be posted Saturday. It is being done for the Southeastern section, but will be available on his webpage as well. Matt Parker is trying to create a video for us as well with stand-up math comedy. Ben Orlin will run a meme/cartooning contest for us, with 3 awards. The planned Pi-Day activities are going to be posted to MAA Connect. Several other plans for online presentations have been made.

It was decided to delay the Treasure Hunt until next year's meeting.

For the Teaching and Service Award Winners, it was decided to try to find volunteers to present plaques at the recipients' institutions.

Tom Fitzkee talked about the finances related to the meeting. There were some expenses, badge holders and inserts, which will be returned to Amazon. One expense we will have to deal with is the program printing, roughly \$750. The water bottles were already purchased, and can be used at a future meeting, though they have High Point on them, but no date. One part of Paypal said they would refund fees, another said they wouldn't, so we may be out 1-2% on registration fees.

There was discussion on what to do about Business Meeting. Jeff Clark suggested an online poll for officers and site selection. It was suggested to use the website as an archive, but post on MAACConnect.

Reports:

Nomination Committee:

Jeff Clark shared the officer nominations:

Chair Elect: Sarah Raynor

Secretary: Julie Barnes

Treasurer: Tom Fitzkee

TN State Director: Brian Dawson

Section Lectuer: Ron Taylor

Section NExT Coordinator: Zach Abernathy

Site Selection Report:

Two very strong proposals for the 2022 meeting in Georgia were received. The committee discussed the Site Selection committee's recommendations and endorsed their selection of Berry College. The recommendation will be voted on by the section at large in an online poll.

Treasurer:

The 2019 Subvention check came in January 2020 instead of December 2019. The meeting expenses of \$5000 were sent to High Point. Tom Fitzkee stated that about \$3500-4000 should come back due to the cancellation of the meeting. There are a lot of people taking advantage of the \$500 honorarium for speakers.

Section Representative:

Tim Chartier shared that at the JMM there were a lot of updates. Sections will have a choice of a Polya, AWM, or NAM lecturer, which will give more choices of speakers to pull from in addition to Section Visitor. MAA Student Membership has climbed up to 14,000. The MAA has expanded its membership, including a Life Membership, a Transitional Membership for graduating student members for 2 years after graduation, and the Vital Membership, which is for vital faculty (instructors, adjuncts, etc). There's a new prize for the AMC-10 for the top-scoring female, a \$5000 award given at the State Department. The Task Force on SIGMAAs looking at how to better support the SIGMAAs.

Program:

Andy Miller stated that we had 78 talks on the schedule in the regular sessions, and 7 special sessions, and some had enough to run 2 sessions. Had 27 undergraduate speakers and 13 undergraduate posters.

Newsletter:

Jessica would like to have everything in for the newsletter by April 6th. She asked for input for parts of the newsletter that typically cover the meeting. She plans to watch and participate in the online meeting we're having and put information on that in the newsletter. Karen will write something to state what had been scheduled, since most of the student activities won't happen this year. Groups that had made t-shirts could submit their designs and be voted on. Kristen suggested including the winning pi-kus and other contest winner information. Any links from archived videos/workshops can be included in the newsletter as well. Student paper and poster winners can be announced, as well.

Historian:

Sloan is trying to have the History of Mathematics session online via recordings.

Section NExT:

They plan to try Thursday Networking in 2 years, and share teaching ideas online. They've created an email list of cohort of Section NExTers and people who typically attend, using that as a forum for teaching ideas.

Alabama State Director (Frank Patane):

Frank asked if University of North Alabama has enough guidance for next year's meeting to avoid potential problems down the road. We have some written reports than can be shared, and can consider having a small meeting before next Fall's EC meeting. They should get in contact with those who hosted last, including Caroline from Lee University. Karen also volunteered to get together with them to share timelines and planning information. Caroline had suggested working on better documenting the timeline of what needs done and when.

Tom Fitzkee asked if the High Point team would want to host the next time or host early. They stated that they would prefer to stay in the normal rotation and will put in a proposal to host again in 5 years.

Meeting Adjourned at 6:05 pm.

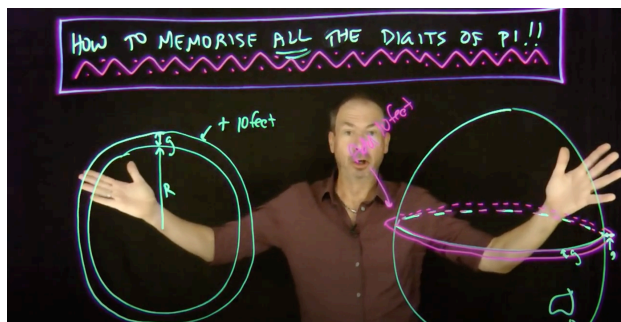
Section Meeting Report

The 99th Annual Meeting of the Southeastern Section of the Mathematical Association of America was scheduled to take place March 12-14, 2020 at High Point University in High Point, North Carolina. Many fine folks worked many hours to prepare for this event, and you can find acknowledgment of their work elsewhere in this newsletter. There were 357 pre-registered attendees, and the program included 77 contributed papers, 27 undergraduate talks, and 13 undergraduate posters.

Unfortunately, and as is well-known by now, the MAA-SE Executive Committee was compelled by the emerging COVID-19 pandemic to cancel the in-person meeting out of a concern for the health of our colleagues, our students, and our communities. Little did we know that we were at the forefront of the coming Zoom-ification of higher education this spring.

We held two live events on-line that weekend:

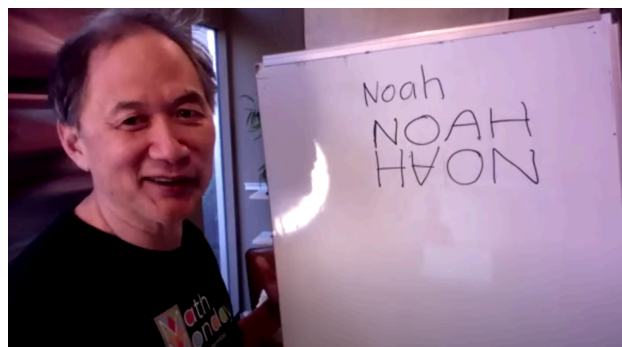
- Friday, March 13: Special Session on Online and Web-Enhanced Teaching, including two talks and an open discussion. At its peak, this session had 19 participants.
- Saturday, March 14: Special Session on Mathematics and Democracy, with all five of the originally programmed talks. At its peak, this session had 23 participants.



In addition, a lot of specially prepared online content was posted on the conference website: a lecture on magic from our Section Lecturer, Matt Baker; a special presentation by Scott Kim on ambigrams; a Pi Day video made for us by James Tanton; a presentation by Peter Penar (Political Science, Davidson College, who has a lot of experience teaching remotely) on engaging students with distance learning, and an

interview with Dr. Nina Fefferman of UT-Knoxville about her work on the COVID-19 pandemic. All of this material is still available online at <https://maasoutheastern.org/2020-conference/>.

Many people deserve our gratitude for the relative success of our virtual meeting: the Executive Committee, led by Chair Laurie Heyer, for their wisdom and courage to cancel



the meeting before it was clear that everything was going to be cancelled this spring; the local organizers at High Point who were so gracious in the disappointing news that we would not be coming to their campus; the speakers and organizers who were willing to switch their mode of presentation on short notice to share live content during the weekend of the meeting; and the many, many people who took part in preparing asynchronous content for our conference webpage.

We hope to offer more content as webinars this summer. Watch your emails for more details.

I look forward to seeing many of you at our 100th Annual Meeting in Florence, AL in March 2021!

Andy Miller

Belmont University, Nashville, TN

MAA-SE Vice Chair for Programs





MAA SOUTHEASTERN SECTION

The Southeastern Section of the Mathematical Association of America expresses warm appreciation to the faculty and staff of the Department of Mathematical Sciences at High Point University, and to the administration of High Point University, for being willing to provide excellent facilities for the 99th annual meeting. We are deeply grateful for their hard work, extraordinary efforts, gracious hospitality and helpfulness in attention to many details that such a meeting involves, and, especially, their graciousness when we had to make the difficult decision to cancel the in-person meeting. We mentioned in particular the contributions of the following individuals:

Organizing Committee:

1. Jenny Fuselier (High Point University)
2. Rob Harger (High Point University)
3. Karen O'Hara (High Point University)

Thanks to all the faculty in the mathematics division for being willing to volunteer their time in putting things together for this meeting and to serve as session moderators, student talk judges, and poster judges, even though their service was not needed.

Math Jeopardy Game

Ron Taylor (Berry College), Mike Berry (UT Knoxville), Timothy Goldberg (Lenoir-Rhyne University), Brian O'Connor (Tennessee Tech), Garner Cochran (Berry College), Doug Pfeffer (Berry College), and Brian Wagner (UT Martin)

Math Treasure Hunt

Julie Barnes (Western North Carolina University), Philip Carroll (Mars Hill University), Shih-Wei Chao (University of North Georgia), Rachel Epstein (Georgia College), Timothy Goldberg (Lenoir-Rhyne University), Kerry Jamerson (Mars Hill University), Wei-Kai (Bryan) Lai (University of South Carolina Salkehatchie), Sarah Nelson (Lenoir-Rhyne University), Andrew Penland (Western Carolina University), Douglas Pfeffer (Berry College), John Risher (North Walterboro Christian Academy), Dan Scofield (Francis Marion

University), Amber Scruggs (University of Kentucky), Laura Steil (Mars Hill University),
Sheri Tamagawa (Davidson College)

Undergraduate Poster Session

Josie Ryan (Lander University)



MAA SOUTHEASTERN SECTION

The Southeastern Section of the MAA expresses warm appreciation to the following companies for their support of the 99th annual meeting:

Cengage Learning
Mathematical Association of America
Princeton University Press

Each of these companies and organizations has provided a display and/or financial support.



MAA SOUTHEASTERN SECTION

The Southeastern Section of the MAA expresses its gratitude to those who planned to hold workshops at the 99th annual meeting:

Incorporating Modeling in Your Differential Equations Course, Audrey Malagon (Virginia Wesleyan University), Jeff Denny (Mercer University)

More than Set Theory: An Intersectional Approach to Diversity in Mathematics, Catrina May (Georgia State University)

A Short Road to the Modern Theory of Integration, Jonathan Lewin (Kennesaw State University)

Specifications Grading, Stan Perrine (Georgia Gwinnett College), Amy H. Erickson (Georgia Gwinnett College), Angi Lively (Georgia Gwinnett College)

We commend these individuals for their service to the Section through the preparation of these inviting and stimulating courses and workshops.



MAA SOUTHEASTERN SECTION

The Southeastern Section of the MAA expresses its gratitude to the organizers of special sessions that were conducted via video conference for the 99th annual meeting:

Mathematics and Democracy

Adam Graham-Squire (High Point University)

Online and Web-Enhanced Teaching

George Moss (Union University)

The Southeastern Section of the MAA expresses also its gratitude to the organizers of special sessions that were planned for the in-person 99th annual meeting:

Complex Dynamics, Julia Sets, and Laminations

John C. Mayer (University of Alabama at Birmingham)

Opportunities in Data Science for Undergraduate Programs

Kristen Abernathy (Winthrop University) and Zach Abernathy (Winthrop University)

Recreational Mathematics

Timothy Goldberg (Lenoir-Rhyne University)

Student Research in the History of Mathematics

Sloan Despeaux (Western Carolina University)

We commend these individuals for their service to the Section through the organization of these valuable additions to the program.



MAA SOUTHEASTERN SECTION

The Southeastern Section of the MAA expresses its gratitude to those who recorded special video presentations for the online 99th annual meeting:

How to Memorize All the Digits of Pi, James Tanton

Engaging Students in the Classroom Cloud, Peter Penar (Davidson College)

Ambigrams: Math + Art + Language, Scott Kim

The Southeastern Section of the MAA also expresses its gratitude to those who planned to deliver special talks at the in-person 99th annual meeting:

Matt Baker (Georgia Tech)

Julie Barnes (Western Carolina University)

Nicole Panza (Francis Marion University)

Rachel Levy (MAA Deputy Executive Director)

We commend these individuals for their service to the Section through preparation of these inviting and stimulating talks.



MAA SOUTHEASTERN SECTION

The Southeastern Section of the MAA acknowledges with genuine appreciation the excellent and faithful leadership and dedicated hard work of those officers completing their terms of service:

Catherine Matos, *Secretary*

Ben Ntatin, *Tennessee State Director*

Matt Baker, *Section Lecturer*

We anticipate with delight and pleasure their continued presence among us, as well as their valuable contributions to the Section in the future.

The Section also thanks those who are continuing to serve in their previous roles for an additional new term of service:

Tom Fitzkee, *Treasurer*

Zach Abernathy, *Section NExT Coordinator*

Fall Executive Committee Meeting Minutes



October 10 & December 22, 2020

Online Meeting

Julie Barnes, recording

Part I: October 10

The meeting began at 4:30 pm

Present: Laurie Heyer, Kristen Abernathy, Zach Abernathy, Julie Barnes, Tim Chartier, Bryan Dawson, Molly Fenn, Brad Fox, Tom Fitzkee, Wei-Kai Lai, Nicole Panza, Frank Patane, Jessica Sorrells, Laura Steil, Ron Taylor, Hua Wang

Laurie began by welcoming new officers (Julie Barnes, Bryan Dawson, and Ron Taylor in a new position).

Reports:

Many officer reports were available to the Executive Committee prior to this meeting, and those reports themselves are available from the Secretary. Several highlighted items from their reports are as follows.

Section Representative to MAA Congress (Tim Chartier)

Tim stated that the main push from the national office is for MAA members to use MAA Connect. They would like to see more activity on that site (<https://connect.maa.org/home>). This is a way to stay connected with the MAA Community. Tim also mentioned that Deanna Haunsperger has launched opportunities for Micro-Volunteering through MAA Connect. Also, Cindy Lawrence from Mo Math was going to talk about virtual math activities on October 28. She might be able to do something for the section. Tim will be rolling off of this position in June, but will still be chair of the Congress through Jan. 31.

Treasurer (Tom Fitzkee)

Tom said that the main thing to report is that we lost about \$1,100 from cancelling the spring meeting. This mainly came from about \$200 in Pay Pal fees and \$900 of expenses at High Point. We might be able to reuse some things in 5 years when our conference will be in North Carolina again. We are doing fine financially, and actually have more now than last year at this time.

Newsletter (Jessica Sorrells)

Jessica is asking for contributions to the newsletter. There was no spring newsletter due to COVID, but she is planning on doing one giant newsletter in the fall. State directors and chairs are asked to submit materials to her by November 13.

Section Officer Meeting (Laurie Heyer)

Laurie stated that we are on the Polya Lecture series for 2021-2022. We will also get a section visitor, but we are not due for an editor speaker. We are done with bylaws revisions. Laurie mentioned that there was quite a bit of discussion about MAA Connect. Sections seem to be having similar concerns, especially regarding virtual meetings. There is a lot of concern about the integrity of the meeting, if people will come, how long the meeting should be, etc. At the January section officers meeting, they plan to talk about hosting virtual meetings. It would be helpful to have as many people as possible at the January section officers meeting.

New Business:

The main topic of discussion is if we should have our spring meeting virtually or not. It had been scheduled to be March 11-12 at the University of Alabama.

Andy had raised an important question about planning for the meeting. We need to get the call for special sessions and workshops out now, and we need to make decisions about the format of the meeting in order to do this. There was a discussion about the fact that with so many things up in the air, we could end up calling a virtual meeting at the last minute. Tom moved that we plan to have the meeting online from the start. Kristen seconded it. The vote was unanimous. Our spring meeting is going to be online.

We then discussed some of the details related to having the meeting online.

In addressing what role Alabama would play, Tom mentioned that maybe they could give the opening and include a video or something.

Bryan mentioned that his son lives in Mexico and they were prerecording videos of their talks and sending them in before the meeting. Tim said that some sports conferences are doing that as well. Students have the choice of zoom or a poster. We can also ask if the host wants to do any social activities. We could also think about how willing we are for this to go beyond our section and/or to people who would not have come to the meeting.

Ron mentioned that he didn't think Jeopardy would work in its current format. Molly and Tim mentioned Kahoot, although Ron was concerned about calling it Jeopardy. Tim said we could reframe it into a different format. Laurie mentioned that if we needed money to reformat, we have it.

Julie mentioned that something could be done with the treasure hunt, and Laura mentioned that we could do a scavenger hunt on zoom.

Kristen said we could still host the graduate school faire and bring in industry for non-academic jobs. Each school or business that wanted to participate could have a time block. Tim wondered if this could be done in the fall. Kristen said that timing would be a question for Karen, and pointed out that it is probably too late now. We could do it in the spring as a test and do it again later as needed.

Laurie said that we submitted a grant for a BIG speaker with a Tondeur proposal. The plan is to also get companies to come and be in breakout rooms. Students could sign up for mock interviews. We would also get a copy of the BIG Jobs Guides for departments who sign up and have students participate. We could hire student assistants to help organize and run it.

Laurie mentioned that REUs have deadlines coming up. She noted that we have lots of ideas for students. We might have a career day before the scheduled meetings. Jeopardy, the treasure hunt, and other student events could happen during the meeting.

Wei-Kai said that if the meeting were virtual, it would be better to not have concurrent talks. We could spread the meeting out on Saturdays, and also spread out the fun events. People could go to everything they want to go to.

Tom mentioned we could add Friday afternoon. Ron said that it could be Friday afternoon and Saturdays. We could do this on two weekends in a row. Laurie said that each day has a social thing and a student thing as well as other events.

Laurie asked if the workshops. She wondered if they could be on a separate weekend. Bryan mentioned that separated from the conference or not is not the main issue. The main issue is if there is an audience.

Tom asked if we should charge a fee. People might be more likely to come if there is a small fee.

Laurie said that we need more discussion on all of this. She will talk with the hosts at UNA to get their opinion, and she will offer to have them host the conference in 5 years.

The official meeting ended at 5:30.

Because of time zone issues, Andy Miller arrived at 5:30. There was a brief discussion with Andy, Laurie, Brad, and Wei-Kai.

Andy needed to know if the call for special sessions should say when the meeting will be. We will advertise March 5-6 and 12-13, the weekends around the originally scheduled meeting. Brad needs to know what to put on the website.

We decided to put a call out both through MAA Connect and MAA emails. The call for papers should be in early December with abstracts due in mid February.

Wei-Kai suggested that we invite two year colleges to attend. The online format might work well for them.

Andy suggested that if we do have a small registration fee, it could be used for something like a donation to Project NExT or to a program that helps minorities in STEM.

In addition to Part 1 of the meeting, we had an email discussion about the submission materials for both MAA SE Section Teaching Awards. Both the Executive Committee and the Teaching Awards Committees voted to use the same submission materials as are required for the MAA Henry L. Alder and MAA Deborah and Franklin Tepper Haimo Award.

Part 2: December 22

Present: Laurie Heyer, Kristen Abernathy, Zach Abernathy, Julie Barnes, Tim Chartier, Bryan Dawson, Sloan Despeaux, Molly Fenn, Brad Fox, Tom Fitzkee, Wei-Kai Lai, Andy Miller, Nicole Panza, Frank Patane, Sarah Raynor, Jessica Sorrells, Laura Steil, Ron Taylor

The meeting began at 1:30.

Laurie began the meeting by saying we need to discuss competing pressures: the need to have as many people speak as possible vs. not having too many parallel sessions. Andy and Laurie presented some possible formats for us to discuss.

Laurie also announced that we were awarded the Tondeur grant. It is not clear exactly how this will translate to a virtual meeting. Maybe it could cover a speaker honorarium instead of travel. The grant also includes money for books that would be given to all participating departments, and for hiring students to help run the event. We may have some different needs now that we are going online.

Laurie mentioned that Hawkes has offered to host an online meeting for us. They have already done this for some other sections. We need to look into it.

We looked at the main program features.

Our keynote speaker slots will be filled with a speaker from BIG, the section lecturer, teaching award winners from last year, and teaching award winners from this year. We don't currently have a national speaker.

Bryan suggested that we include as many student paper sessions as possible, and Kristen suggested that regular contributed paper sessions should not be limited because non-tenure track faculty need opportunities to speak. Andy looked at past numbers and predicted that we might have around 3-4 parallel things depending on whether we move the workshops to Friday or not.

Brad asked about Math Jeopardy. Ron said he didn't see that working in its current state. But, we could run some sort of team trivia. Julie said can also do a virtual version of the treasure hunt, maybe in the form of a virtual breakout room. Sloan suggested an Estimation.

Brad asked if there would be a minimal registration fee. Tom said it would depend on what costs we have. Sarah pointed out that sometimes charging a fee could create more work than it is worth.

We honed in on having student social events each Friday and workshops on Friday. Kristen said that Project NExT is flexible on time. We decided that we will try to accept all reasonable paper submissions and work from there to fit a schedule. Wei-Kai suggested reducing break time if we need more space for talks.

We discussed how to do a poster session. One suggestion was to record a short summary about each poster with an image of it, then log on at a certain time to meet with the presenters. They could be in breakout rooms as needed. Jessica mentioned using spatial.chat for the session. Sarah mentioned that Jenny Quinn uses gather town. We decided that we will have a poster session, but the details need to be worked out yet.

We also decided that we will most likely have free registration, but registration is still required. Sloan suggested using google docs to register.

The meeting ended at 2:30pm.

Mathematical Association of America - Southeastern Section
Distinguished Service Award 2020
Jeff Kinsley

Virginia Watson prepared these remarks on this year's Distinguished Service Award winner.

On behalf of the Southeastern Section Distinguished Service Award Committee I would like to announce the 2020 Distinguished Service Award Recipient, Dr. Jeff Knisley of East Tennessee State University.

Jeff has served the MAA Southeastern Section in multiple roles. In 2003, he was the Section Lecturer, from 2005 to 2008 he was the Tennessee State Director and from 2011 to 2013 he was the Section Chair. He has also served on several national MAA committees. He is known for giving more than 100% in all that he attempts. The Southeastern Section and the MAA has benefitted from his outstanding work.

He is known as an excellent teacher. He has won local teaching awards at East Tennessee State University from the Department of Mathematics and Statistics and the College of Arts and Sciences and our own Southeastern Section Distinguished Teaching Award in 2004. According to one of the peer review letters of his teaching, Dr. Knisley is "always spinning for his students a web of knowledge."

In support of teaching he has been a PI or Co-PI on multiple grants. These include two NSF Course, Curriculum and Laboratory Improvement grants, an NSF-UBM grant, an NSF-STEP and an HHMI project.

He frequently involves students, both graduate and undergraduate, in his research area of mathematics and computational science. Jeff is also an active researcher in the area of mathematics and science education.

Please join me in congratulating this year's award recipient, Dr. Jeff Knisley.

**CALL FOR NOMINATIONS:
THE 2021 SOUTHEASTERN SECTION
DISTINGUISHED SERVICE AWARD**

The Southeastern Section of the MAA is delighted to present a Distinguished Service Award at its annual Spring Meeting each year. Any member of the Section who is an outstanding contributor to our Section is eligible for nomination. The person selected for 2021 will be honored at our Section's Meeting, to be held virtually on Saturday March 6th and Saturday March 13th, 2021.

The Section Distinguished Service Award Committee encourages members of the Section to nominate deserving persons for this award. Please send your nomination letter, along with the nominees' vitae (if possible) and any other supporting materials/letters, all as electronic documents, to Pat Humphrey, Committee Chair, at phumphre@georgiasouthern.edu by February 1, 2021. We ask that you make every effort to gather these materials without the nominee's knowledge, as it is the Section's tradition to surprise the awardee with the award at the Section meeting. Previous nominations of candidates who were not awardees may be carried forward for consideration for the 2021 award if the nominator so notifies Pat Humphrey by the submission deadline of February 1, 2021. Contact Pat Humphrey regarding any questions about the process or nominating materials.

The Section Award was made in even numbered years from 1990 to 1996 and annually since that time. The following is a list of recipients:

| | |
|---|---|
| April 1990 Trevor Evans, Emory University | March 2009 Walter M. Patterson, III, Lander University |
| April 1992 Billy F. Bryant, Vanderbilt University | March 2010 Ray E. Collings, Georgia Perimeter College |
| April 1994 James G. Ware, Univ. Of Tenn., Chattanooga | March 2011 Ellen Kirkman, Wake Forest University |
| April 1996 Marcellus Waddill, Wake Forest University | March 2012 Charlotte Knotts-Zides, Winthrop University |
| March 1997 John Kenelly, Clemson University | March 2013 Jim Vandergriff, Austin Peay State University |
| March 1998 David Stone, Georgia Southern University | March 2014 John C. Mayer, University of Alabama, Birmingham |
| March 1999 M. F. Neff, Emory University | March 2015 Jeff Clark, Elon College |
| March 2000 Tina Straley, MAA Executive Director | March 2016 Martha Abell, Georgia Southern University |
| March 2001 Charles Cleaver, The Citadel | March 2017 Virginia Watson, Kennesaw State University |
| March 2002 Sharon Cutler Ross, Georgia Perimeter College | March 2018 Patricia Humphrey, Georgia Southern University |
| March 2003 Syliva Trimble Bozeman, Spelman College | March 2019 Julie Barnes, Western Carolina University |
| March 2004 Theresa E. Early, Appalachian State University | March 2020 Jeff Knisley, East Tennessee State University |
| March 2005 Hugh Haynesworth, College of Charleston | |
| March 2006 Stephen Davis, Davidson College | |
| March 2007 Joel Brawley, Clemson University | |
| March 2008 Benjamin G. Klein, Davidson College | |

**Mathematical Association of America - Southeastern Section
Distinguished Teaching Award 2020
Ratnasingham Shivaji**

Stephen Robinson prepared the following remarks about the award winner.



Dr. Ratnasingham Shivaji (Shivaji) of the University of North Carolina at Greensboro (UNCG) is this year's recipient of the 2020 Southeastern Section Award for Distinguished College or University Teaching of Mathematics. Shivaji's record as a mathematician, teacher, and mentor is truly remarkable. A highly regarded mathematician, he is an AMS Fellow with multiple NSF grants and more than 150 publications. In the classroom his lectures are brilliantly prepared and convey an "infectious enthusiasm" for mathematics and a desire to guide students towards the discovery of ideas. Several students refer to his board work, beautifully written with multiple colors, as a work of art. One former colleague admits to not asking Shivaji to be a

substitute in his class, because he was afraid that his students would not want him back. As a mentor Shivaji is dedicated, compassionate, and inspiring. From new freshman to younger faculty and all levels in between. He has guided 17 PhD students, 15 MS students, and 30 Undergraduate students. He has been a Co-PI for 2 NSF-REU grants. His former students speak passionately about wanting to pass along the same love of mathematics to their students that Shivaji has encouraged in them.

In their own words:

Student quotes: "His enthusiasm for math is infectious. I was so impressed by his teaching abilities that I decided to attempt to become one of his PhD students--even before I fully knew his research area. I just wanted to learn everything that I could from this master teacher." "I became somewhat discouraged until taking this course with Professor Shivaji. Dr. Shivaji's passion for mathematics made me realize that this was the path that I belonged on and I truly thank him for that." "He is the type of teacher I strive to be, and this has really come full circle since I am currently teaching Differential Equations and using my notes and assessments from his class as a guide." "I thoroughly enjoyed my time as one of Dr. Shivaji's students. He has a particular way of instructing that brings joy into any

classroom. His love for mathematics was evident during each lecture or research meeting that I had with him and it certainly rubs off on his students.” “Even though he is no longer my professor, Dr. Shivaji still affects my life in a positive way to this day, and I was so lucky to have had him as my mentor.”

Quotes from colleagues: “I often envision Shivaji as a professor out in shade of the trees with his students sitting at his feet, absorbing, engaging, participating, appreciating, and enjoying the opportunity.” Regarding his work as an REU mentor “Over those two summers, in addition to taking on his responsibilities as the department head at UNCG in summer 2011, he cared more about student’s research projects and their achievements.”

CALL FOR NOMINATIONS: THE 2021 SOUTHEASTERN SECTION DISTINGUISHED TEACHING AWARD

Nominations for the 2021 Southeastern Section Award for Distinguished College or University Teaching of Mathematics are now being accepted. This award is established to honor faculty who have been extraordinarily successful in teaching. The winner will be honored at the Spring 2021 virtual meeting.

A nomination form is on page 29. Each member of the Section is encouraged to consider submitting a nomination packet to Valerie Miller (vmiller@gsu.edu), chair of the selection committee. The deadline for submission is February 1, 2021.

Previous Teaching Award Recipients:

The section has presented the Award for Distinguished College or University Teaching of Mathematics each year since 1992. Past recipients are:

1992 Anne Hudson, Armstrong State University
 1993 Robert Bryant, Duke University
 1994 John Neff, Georgia Institute of Technology
 1995 Sylvia Bozeman, Spelman College
 1996 Carl Pomerance, University of Georgia
 1997 Harold Reiter, Univ. of North Carolina at Charlotte
 1998 Ben Klein, Davidson College
 1999 Joel Brawley, Clemson University
 2000 Theodore Shifrin, University of Georgia
 2001 Johnny Henderson, Auburn University
 2002 Ronald Harshbarger, University of South Carolina, Beaufort
 2003 Sue E. Goodman, University of North Carolina, Chapel Hill
 2004 Jeff R. Knisley, East Tennessee State University
 2005 David Stone, Georgia Southern University
 2006 William "Mac" Priestly, the University of the South
 2007 David Sumner, University of South Carolina, Columbia
 2008 Ronald Gould, Emory University

2009 Hugh Howards, Wake Forest University
 2010 Martin Jones, University of Charleston
 2011 Barry Spieler, Birmingham-Southern College
 2012 Sam Kaplan, University of North Carolina at Asheville
 2013 Ron Taylor, Berry College
 2014 No award given
 2015 Maurice Herndon, University of Georgia
 2016 Stephen Robinson, Wake Forest University
 2017 Valerie Miller, Georgia State University
 2018 No award given
 2019 Julie Barnes, Western Carolina University
 2020 Ratnasingham Shivaji, UNC Greensboro

Award for Distinguished Teaching of College or University Mathematics Nomination Procedure

Please type.

Nominee's Name (first name first):

College or University Affiliation:_____.

College or University Address:_____.

City, State, ZIP: _____.

Nominee's number of years teaching experience in a mathematical science:_____

Has the nominee taught at least half time in a mathematical science during the current academic year or during the previous year if on approved leave or sabbatical?

Name of nominator (first name first):_____.

Address of nominator:_____.

Telephone:_____ Email:_____.

Nominator's Signature:_____ Date:_____.

The submission materials required are the same as for the Deborah and Franklin Tepper Haimo Award, the details for which can be found at [this link](#). Please prepare all nominate materials with a type size no smaller than 12 points. A complete application packet includes:

- **Nomination Form**

Please include the information indicated above.

- **Narrative**

Please describe the nominee's extraordinary success in teaching by providing a narrative of the nominee's background, experience, teaching style, special contributions, other teaching awards, and any additional evidence of the nominee's unusual achievement in teaching. Note especially effectiveness in teaching undergraduate mathematics and influence beyond the nominee's own classrooms. The narrative should be in 12 pt font, double-spaced, and should not exceed 5 pages.

- **Additional Documentation**

Please submit no more than three pages of further evidence to document the nominee's extraordinary teaching success.

- **Letters of Recommendation**

Please include no more than five letters of recommendation, not exceeding one page each, as follows:

- Two letters from the nominee's present or former students.
- Two letters from the nominee's colleagues (one of whom could be the department chair).
- One additional letter from any one qualified to comment on the nominee's extraordinary teaching success.

Deadline for nomination: February 1, 2021

Send to: Valerie Miller, vmiller@gsu.edu,

Georgia State University, Department of Mathematics & Statistics

We're willing to help! If you would like assistance, please contact Valerie Miller before February 2021.

**2020 MAA SOUTHEASTERN SECTION AWARD FOR
DISTINGUISHED TEACHING BY A BEGINNING COLLEGE OR
UNIVERSITY MATHEMATICS FACULTY MEMBER GOES TO
ANDREW PENLAND**

Stephen Robinson prepared the following remarks about the award winner.



Dr. Andrew Penland of Western Carolina University (WCU) is this year's recipient of the MAA-SE Award for Distinguished Teaching by a Beginning College Mathematics Teacher. In just a handful of years Dr. Penland has already established a teaching record that embodies both excellence and breadth. In the classroom he emphasizes participation, discovery, and inquiry. He is described as patient, encouraging, enthusiastic, and fun. He has actively participated in professional development both at WCU and externally, such as with Project NExT. He has done an outstanding job mentoring student research, leading to student conference presentations, and he coaches a variety of competitions such as the COMAP MCM, Putnam, Math Jeopardy, and the Kryptos Challenge. In his spare time (Yes, I am joking.) he has coached the Smoky Mountain High School Code Busters Team, and has led problem sessions for the Smoky Mountain Math Teachers' Circle.

In their own words:

Peer observers: "He has a calm, respectful demeanor and demonstrated the best example of discovery-based learning that I have ever seen." "I've never seen students so energized and comfortable working together"

Co-research mentor: "[He] was able to strike the perfect balance between depth and accessibility in the material he presented. The result of this endeavor was two student poster presentations at the JMM last month and a paper currently under review in a research journal (with seven student coauthors)."

Students: "Dr. Penland's interest in the course material and dedication to discussing relevant student interests are exceptional. Dr. Penland is always excited to teach, answers questions, and encourage collaboration." "From my perspective, a great teacher should be patient, helpful, compassionate, knowledgeable about their subject, encouraging of creative thought, and desire the best for their students. I have had quite a bit of experience working with Dr. Penland and I can confidently say that he can accurately be described as great."



CALL FOR NOMINATIONS FOR THE MAA-SE AWARD FOR DISTINGUISHED TEACHING BY A BEGINNING COLLEGE MATHEMATICS FACULTY MEMBER

COMPLETE NOMINATION PROCESS

Brief Description: The MAA Southeastern Section (MAA-SE) established this award to honor beginning college or university faculty whose teaching in the Section has been extraordinarily successful and whose effectiveness in teaching undergraduate mathematics is shown to have influence beyond their own classrooms. An awardee must have taught full time in a mathematical science in the Southeastern Section for at least two years, but not more than a total of seven years in any collegiate institution. Each year at most one college or university teacher is to be honored with this MAA-SE section award. Nominations for the award may be made by any member of the MAA-SE section.

A complete nomination packet should consist of a nomination form, a narrative, additional documentation, and letters of recommendation as described below. Please email the completed packet by February 1, 2021 to:

Valerie Miller
vmiller@gsu.edu
Department of Mathematics & Statistics
Georgia State University

Questions may be directed to Valerie at vmiller@gsu.edu.

Eligibility and Guidelines for Nomination

Eligibility

Teaching is intended to include classroom instruction as well as activities outside the classroom, such as working with student groups, preparing students for mathematical competitions, directing undergraduate students in research in mathematics, directing students in the preparation of honors theses, preparing teaching materials used by others, etc.

Nominees must:

- Hold the terminal degree required by SACS to be a full time faculty member in a collegiate institution,
- Be college or university teachers currently in the MAA-SE who have taught full time in a mathematical science in the Southeastern Section for at least two years, but not more than a total of seven years in any collegiate institution. In determining eligibility, we do not count time spent in a postdoctoral position where nearly all the nominee's time was spent on research, and the nominee did very little or no teaching (e.g. three semester courses a year or less), and
- Hold membership in the Mathematical Association of America

Guidelines for Nomination

Nominees for the award may be made by any member of the MAA-SE section.

Nominees should:

- Be recognized as extraordinarily successful in their teaching
- Have effectiveness in teaching undergraduate mathematics that can be documented
- Have had influence in their teaching beyond their own classrooms

A nomination for this award should consist only of the materials requested below, and should not include any other materials, such as curricula vitae or other items.

Nomination Packet:

We require the same materials for nomination as the Henry L. Alder award, the details for which can be found at [this link](#).

Nomination Form

A completed **Nomination Form** is the first part of the packet. Please see page 38 of this newsletter for the nomination form.

Narrative

Please describe the nominee's extraordinary success in teaching by providing a narrative of the nominee's background, experience, teaching style, special contributions, other teaching awards, and any additional evidence of the nominee's unusual achievement in teaching. Note especially effectiveness in teaching undergraduate mathematics and influence beyond the nominee's own classrooms. The narrative should be single-spaced in 12 pt font with at least 3/4 inch margins and should not exceed 2 pages.

Additional Documentation

Please submit no more than two pages of further evidence to document the nominee's extraordinary teaching success. This documentation will vary greatly from institution to institution, but may include summaries of peer or student evaluations, comments on teaching, possible increases in numbers of majors in mathematics (with clear evidence of the nominee's substantial responsibility for them), possible student success in mathematics competitions (with clear evidence of the nominee's substantial responsibility for them), success in research in undergraduate mathematics conducted by undergraduate students under the direction of the nominee, development of curricular materials successfully used by colleagues, adoption of the nominee's teaching methods or techniques by experienced colleagues, service as a respected adviser for a student group, etc.

Nominators should bear in mind that the selection committee might view a nomination more positively if it is accompanied not just by carefully chosen testimonials from a few selected students and faculty, but also by reports, comments, and criticism which is representative of the whole spectrum of opinion among students and faculty on the nominee's teaching.

Letters of Recommendation

Please include no more than five letters of recommendation, not exceeding one page each, as follows:

- Two letters from the nominee's present or former students.
- Two letters from the nominee's colleagues (one of whom could be the department chair).
- One additional letter from any one qualified to comment on the nominee's extraordinary teaching success.



**MAASE Award for Distinguished Teaching
by a Beginning College or University
Mathematics Faculty Member**

NOMINATION FORM

To be submitted by February 1, 2021

PLEASE TYPE

| | |
|--|-------------------------------------|
| Nominee's Name (First name first): | |
| College or University Affiliation: | |
| College or University Address: | |
| | |
| | |
| Nominee's email address: | |
| Is the nominee a current member of the Mathematical Association of America? (only members of the MAA are eligible for the award) | Year joined_____. |
| Nominee's number of years teaching experience in a mathematical science (at least two years, not more than seven) | Number_____ Year_____ to Year_____. |
| Graduate Degree earned in mathematical sciences: | Degree_____Area of Specialty_____. |
| List the years where the nominee taught full time in a mathematical science in the Southeastern Section (at least two needed) | Years_____ Location_____. |

Please describe on no more than two pages of 12 point type, single-spaced, the unusual personal and professional qualities of the nominee that contribute to his or her extraordinary teaching success, and attach.

| | |
|---------------------------------------|-----|
| Name of Nominator (First name first): | |
| Address: | |
| | |
| | |
| Telephone: | |
| Email address: | |
| Signature: | |
| Date: | / / |

News from the Campuses

Agnes Scott College (Decatur, GA)

The department is pleased to welcome Dr. Harini Chandramouli to the faculty. She will be joining us in Fall, 2021 after a one-year postdoc at Harvard. We also welcome Dr. Leona Sparaco who is working at Agnes Scott College this academic year.

Undergraduate student Laura Stordy completed her senior thesis "Regular Subgroups, Braces, and Abelian Fixed-Point Free Homomorphisms" last spring. This work has been incorporated into the paper "Abelian fixed point free endomorphisms and the Yang-Baxter equation", coauthored with Alan Koch, and Paul Truman. The resulting paper has been accepted by the New York Journal of Mathematics.

Alan Koch is the principal investigator on a recently funded NSF S-STEM grant. This \$650,000 grant targets high-achieving, STEM-interested students with demonstrated financial need, providing scholarships and a vibrant academic community designed to encourage persistence in STEM. (Submitted by Alan Koch)

Auburn University at Montgomery (Montgomery, AL)

The past year obviously was unprecedentedly challenging due to COVID-19. Starting from March 2020 through the summer of 2020, the university switched to online teaching completely. Starting from Aug. 17, 2020, the department started to offer a mix of face-to-face and hybrid instruction in classes. Despite the huge challenge to adapt to either completely online or the hybrid of both online

and face-to face teaching, the entire department faculty has shown strong solidarity and dedication to serve the students, the department and the university. Overall, all the classes were successfully delivered with minimum students' complaints. The beginning of Fall 2020 has seen a quiet yet orderly start. The department, in the Fall semester 2020, enrolled 79 mathematics majors (including pre-engineering students). In the 2019-2020 academic year, we graduated 1 traditional math majors. Our students and faculty gave a total of three invited/contributed presentations at various national and regional venues. They also published a total of 12 research papers in a variety of peer-reviewed journals/conference proceedings. Student clubs (Math and Engineering clubs) were still active before the COVID-19 pandemic. Altogether we hosted 10 student club activities: <http://sciences-srv.aum.edu/~ywang/colloquia/departmentColloquia.htm>.

Here are a few highlights from our faculty and staff. Dr. Mosisa Aga made two presentations. He served in several committees within AUM, co-organized the Alabama Statewide Math Contest, a member of Alabama state-wide AGSR/STARS Committee representing AUM on core mathematics courses. Outside academia, Dr. Aga also served as a member of the Board of Directors of the Oromo Studies Association (OSA) and is serving as the Chair of the Board of Trustees of a media organization known as Oromia News Network (ONN) which is educating the Oromo community in the Diaspora and in Ethiopia through TV broadcast.

Dr. Tianran Chen received his first NSF grant in Aug. 2019. He published two journal papers and submitting two papers. He was invited to speak in several meetings/conferences. Unfortunately, all of them were cancelled due to the COVID-19 disruption. Dr. T. Chen coauthored two research papers with the undergraduate student Evgeniia Korchevskaia, who is now in the Ph.D. program at Georgia Tech with a Presidential Fellowship. Dr. Tianran Chen received the “2019 Outstanding Faculty Award” from the Department.

Dr. Yue Chen published one paper. Dr. Jerome Goddard has another very productive year. He was conferred with the AUM Distinguished Research Associate Professor Award in Oct. 2019. He published five journal papers and submitted two papers. He was awarded with his second NSF grant. He co-directed two Ph.D. students and mentored three undergraduate students. Dr. Lee received the “2019 Outstanding Faculty Award” from the Department. Dr. David Lipham published two journal papers. Dr. Yi Wang published two journal papers in 2019.

We encourage interested parties to visit our website <http://sciences.aum.edu/departments/math-and-computer-science>. More information on our students, faculty, and employment opportunities can be found there. (Submitted by Yi Wang)

Belmont University (Nashville, TN)

After seven years of exemplary service, Andy Miller has stepped down as department chair. Danny Biles will now serve a three-year term as chair.

Glenn Acree will be retiring in December after a long, productive career with Belmont. Some

of his accomplishments include serving as the Program Director for a NSF STEM grant for mentoring Math/Science students, serving as our department industry liaison and internship coordinator, and developing a new program in Data Science.

Bill Hooper will be on sabbatical this spring, studying Neural Networks with an Arithmetic-Logic Unit and other deep learning networks. (Submitted by Danny Biles)

Birmingham-Southern College (Birmingham, AL)

Birmingham-Southern College is delighted to welcome our new assistant professor of mathematics, Dr. Tricia Phillips. Tricia enjoys applying mathematics to explore questions in human health. She recently earned her Ph.D. from the University of Tennessee, Knoxville. Also this year, BSC had 13 senior mathematics majors complete a senior research project in mathematics with topics ranging from disease modeling, to sports statistics, to rook theory. (Submitted by Bernadette Mullins)

The Citadel (Charleston, SC)

Chuck Groetsch retired after spending 14 years at The Citadel. A fellow of the American Association for the Advancement of Science, Chuck was the founding dean of The Citadel's School of Science and mathematics. We also lost a statistician, Sybil Prince Nelson, who left after 4 years here to teach at her undergraduate alma mater, Washington and Lee University.

We hired a new faculty member, Jeff Lyons. Jeff is an analyst who received his Ph.D. from Baylor in 2011. He has held positions at Trinity University, the University of Hawaii, and Nova Southeastern University. We also hired two new adjuncts, Kerry Morrissey and Melissa Myrick.

Jeff has been busy since accepting our offer last spring. He has given two talks, as shown here.

- *An application of the layered compression-expansion fixed point theorem to a fractional boundary value problem*, Recent Advances in Differential and Difference Equations and Their Applications, Virtual Conference, June 9-11, 2020
- *Existence of a positive solution for a singular fractional boundary value problem with fractional boundary conditions using convolution and lower order problems*, Special session on Boundary Value Problems for Differential, Difference, and Fractional Equations, Fall Southeastern Sectional Meeting of the AMS, Virtual, October 10-11, 2020

Jeff also had two papers accepted for publication in September and has several presentations and conference session organizations planned for the very near future.

Two faculty members, Antara Mukherjee and Rigo Flórez, and student Matt Blair, who was graduated in May, were very active with research, mostly involving Hosoya Triangles. Professor Mukherjee gave a presentation *Matrices in the Determinant Hosoya Triangle* at the virtual Fibonacci conference in July of 2020. Matt gave a virtual presentation on the Determinant Hosoya Triangle at the Ross Mathematics Program in Ohio. He also gave an online presentation *Geometry in the Determinant Hosoya Triangle* at The Nineteenth International Conference on Fibonacci Numbers and Their Applications, 21 July 2020. Blair, Flórez and Mukherjee published a paper *Matrices in the Hosoya Triangle* in the December, 2019 issue of Fibonacci Quarterly. These three also have two more papers under submission. Our department was very pleased when Mr. Blair Received the Dwight Camper Outstanding

Undergraduate Research Award from the South Carolina Academy of Sciences this year.

In March 2020, in one of the last events before the COVID-19 induced shutdown, one of our students, Phromnachanok Ketphan, was on the team that took second place in the students' competition at the Military Operations Research Society Educational and Professional Development Conference.

Rigo has been rather active, as this list of papers, with a variety of authors, shows.

- R. Flórez, and J. L. Ramírez, *Enumerating Symmetric and Asymmetric Peaks in Dyck paths*. Discrete Mathematics, 343 (2020) 112-118.
- A. Brewer, A. Gregory, Q. Jones, L. Rodriguez, R. Flórez, and D. Narayan, *Infinite families of asymmetric graphs*. Published online: 24 Jun 202. AKCE International Journal of Graphs and Combinatorics 2020.
- R. Flórez and R. Higuera, *Another proof for partial strong divisibility property of Lucas-type Polynomials*. The Fibonacci Quarterly, 58 (2020), 70-72.
- R. Flórez and T. Zaslavsky, *Projective Planarity of Matroids of 3-Nets and Biased Graphs*. Australasian Journal of Combinatorics, 76 (2020), 299-338.
- R. Flórez and A. Mukherjee, *Classroom experiences in introducing students to conjectures, exploration and visual proofs using experiments on the Möbius strip*, PRIMUS, 30 (2020), 50-66.
(Submitted by Dave Trautman)

Converse College (Spartanburg, SC)

The Department of Mathematics and

Computer Science is proud to announce the launch of a new minor program in Data Science, coordinated by Dr. Mandy Mangum, assistant professor of Mathematics and Data Science.

Mathematics faculty and undergraduate students launched a *Girls Who Code Club* for middle and high school students. The club had 8 virtual meetings in Fall 2020 and will resume in Spring 2021.

Dr. Jessica Sorrells taught a PIC Math course in Spring 2020 in which her class partnered with Bank of America to solve industry-relevant mathematically flavored problems.

Dr. Joe Barrera, Dr. Mandy Mangum, and Dr. Jessica Sorrells, and Kimberly Leone '21 all had presentations accepted for the Mathematical Association of America Southeastern Section annual conference. These were cancelled due to COVID-19.

Dr. Mangum presented a poster and served as a panelist at the online Mastery Grading Conference in June 2020.

Chloe Griffin '22 received the best poster presentation award in the bioengineering category at the S.C. INBRE Research Symposium in Columbia, SC on January 25, 2020. She presented on research completed with Dr. Jessica Sorrells during summer 2019. The research was supported by an INBRE grant.

Chiara Mattamira '20, was accepted with full support to the mathematics PhD program at the University of Tennessee at Knoxville and entered into the program in Fall 2020. Chiara also had a paper, *DNA Self-Assembly Design for Gear Graphs*, accepted for publication in the

Rose-Hulman Undergraduate Mathematics Journal. This paper is the result of work began under the supervision of Dr. Jessica Sorrells during Summer 2018. The project was supported by INBRE and SCICU grants. (Submitted by Jessica Sorrells)

Francis Marion University (Florence, SC)

Undergraduate students and math majors Taylor Boatright, Ja'Nya Breeden, and Jada Lytch were recipients of an NSF SC EPSCoR SAN Grant for 2020-2021. Under the supervision of Dr. Dan Brauss, the students conducted undergraduate research in the summer while working in the Linux operating system, coding in C++, and implementing finite element method (FEM) algorithms. They plan to complete the implementation of a C++, Least Squares, Navier-Stokes FEM Solver based on the work of Roland Glowinski.

Dr. Daniel Scofield led a six-week Summer Research in Data Science program for undergraduates in June-July 2020. Amyirell Harrington and Maximo Rainwater researched the mathematics of neural networks and implemented their own machine learning models in Python using real-world data. Their projects focused on classification of viral infections and sentiment analysis of text reviews.

Jonathan Britt, December 2019 graduate, was accepted into the PhD program in mathematics at the University of Kentucky. James Morris, an undergraduate mathematics/physics double major, participated in the Computational Physics REU program at Louisiana State University in summer 2020

Four students (Chassidy Dubose, Johnayshia Lowery, Zachary Middleton, Tierra Ritter) and

four faculty members (Dr. Sophia Waymyers, Dr. Dan Scofield, Dr. Keith D. Brauss and Dr. Minerva R. Brauss) provided Supplemental Instruction (SI) Sessions in critical gateway courses in mathematics, College Algebra and Probability & Statistics. SI Sessions are regularly scheduled, collaborative review sessions in which academically successful students provide instruction for their peers. They provided interactive tutoring while sharing effective study strategies with their peers to help them navigate gateway courses. On average, students who participated in at least one SI session had a statistically significantly higher course grade in Math III. The Supplemental Instruction Program was made possible through an awarded FMU's Professional Experience and Knowledge (PEAK) grant.

Five students (Taylor Boatwright, Anquan Gamble, Johnayshia Lowery, Briana Monarca, Tierra Ritter) were supervised by Dr. Keith Brauss and Dr. Minerva Brauss in a nine-day program "Application for Math, Leadership, Service and Cultural Immersion" in Belize, Central America. The program provided an opportunity for students to engage in activities in a friendly, unknown environment beyond the classroom that will promote and stimulate intellectual thought, personal growth, and future plans. Students and faculty tested portable water quality in Billy Barquedier National Park and a surrounding village (valley community) in collaboration with faculty and students from the University of Belize. They directed a two-day outreach program for primary school aged children in Yo Creek Compassion School (Yo Creek Village) and La

Inmaculada Primary School (Orange Walk Town). (Submitted by Tom Fitzkee)

Furman University (Greenville, SC)

The Department of Mathematics at Furman University had an exciting and eventful year. We saw 27 students graduate in Spring 2020 with either a Mathematics, Applied Mathematics, or Math-Econ major and currently have 60 declared majors. This past summer we had 17 students engage in math research projects with faculty in a wide range of topics including recreational mathematics, topology, sports analytics, and statistics; these students will present their work at Furman Engaged and several other conferences throughout the year.

We continued our annual Clanton Lecture series by welcoming Daniel Litt of University of Georgia in early March. He spent two days visiting with the department and presented a general audience lecture titled 'Impossible Numbers and Unknowable Truths.'

Sarah Frick is PI of a NSF grant supporting the Carolina Dynamics Symposium, which brings dynamics researchers together from across the Carolinas (and beyond) for an annual weekend conference.

Christian Millichap advises the newly founded Cryptology Club at Furman to explore everything cryptology related. Students and faculty meet bi-weekly to work on code breaking, discuss books like *The Woman who Smashed Codes*, participate in the Kryptos competition, and have team events like Crypto Escape! (a virtual event combining an escape room with code breaking). (Submitted by Lori Alvin)

Georgia College & State University
(Milledgeville, GA)

Dr. Guy Biyogmam and Dr. Simplice Tchamna recently received tenure and promotion to Associate professor.

The Department of Mathematics of Georgia College & State University will host the Southern Regional Algebra Conference 2021 (SRAC 2021) on March 19-21, 2021 in a virtual format. The in-person SRAC meetings will resume in Spring 2022 and will be held at Georgia College & State University. (Submitted by Guy Biyogmam)

Georgia Gwinnett College
(Lawrenceville, GA)

In the fall, Dr. Negar Orangi-Fard joined the math faculty as Assistant Professor; her primary research areas are network science and graph theory, and data science and machine learning. Carlton “Buck,” Buchanan, and Janice Alves joined the faculty as mathematics instructors, and Penny Hidalgo joined as a mathematics lecturer.

We currently have about 193 undergraduate majors across 3 concentrations (pure math, applied math, and math teacher certification). Our math majors reflect the diversity of Georgia Gwinnett College, which for the 7th year in a row, in September 2020, was selected by US News and World Report, as the most ethnically diverse southern regional college. Our math majors are comprised of 36% white, 24% African American, 23% Hispanic, 12% Asian, and 5% Other.

Faculty honors this past year include,

Dr. Alvaro Ortiz was selected as Project Next Fellow for 2020-21.

Dr. Alvina Atkinson was elected to serve as Vice President of the Southeast Region of the American Mathematical Association of Two-Year Colleges, as well as to serve on the University System of Georgia Council on General Education.

Dr. Boyko Gyurov, was selected as a Fulbright Fellow at Bulgaria, September 2019-January 2020, his Fulbright Project title, “Modern Methods of Teaching Mathematics.”

Dr. Kodwo Annan has been selected to serve on the editorial boards of the International Journal of Systems Science and Applied Mathematics, and the Transnational Journal of Mathematical Analysis & Applications.

Dr. Aris Winger has been selected to serve on the editorial board of the Focus Magazine of the Mathematical Association of America.

Dr. Jamye Curry-Savage has been selected to serve as the Southeast Regional Director for the Kappa Mu Epsilon National Mathematics Honor Society (Submitted by Mohamed Jamaloodeen)

Lee University (Cleveland, TN)

Caroline Maher-Boulis was elected to chair BIG SIGMAA and was requested to chair the BIG Committee.

Four Lee math majors passed the actuarial Exam P.

Lee faculty published several interdisciplinary articles in JMSCE’s Summer 2020 issue; these stemmed from a national collaboration among 10 institutions in the NSF-funded SUMMIT-P project. Articles can be found at https://scholarscompass.vcu.edu/jmsce_vamsc/vol16/

[issi/1/](#) and more inform about SUMMIT-P can be found at www.summit-p.com.

- Caroline Maher-Boulis and Bryan Poole (mathematics and social sciences), *The Roles and Benefits of Using Undergraduate Teaching Assistants to Support the Work of a SUMMIT-P Project*
- Caroline Maher-Boulis, Jason Robinson, Patricia McClung and Jennifer Cornett (mathematics and education), *Counting on Collaboration: A Triangular Approach in the Educator Preparation Program for Teachers of Mathematics*
- Caroline Maher-Boulis and Bryan Poole (mathematics and social sciences), *Designing a Student Exchange Program: Facilitating Interdisciplinary, Mathematics-Focused Collaboration Among College Students*

(Submitted by Caroline Maher-Boulis)

Mars Hill University (Mars Hill, NC)

Dr. Don Russell retired from Mars Hill University after 47 years of teaching. During his time at Mars Hill, Don taught over 40 distinct courses, received the Gibbs Outstanding Teacher Award, served as department chair, and authored two textbooks used in teaching math courses at MHU for two decades. He has left a lasting impact on the Mars Hill campus. (Submitted by Laura Steil)

Mercer University (Macon, GA)

The Department of Mathematics welcomes back two of its members who have been on yearlong leaves. Dr. Hope McIlwain was the Distinguished Visiting Professor at the U.S. Air Force Academy during the 2019-2020 academic year. Dr. Carolyn Yackel was on sabbatical leave during the 2019-2020 academic year, working

on a variety of projects, some of which include attending the Fall-semester-long workshop Illustrating Mathematics at the Institute for Computational and Experimental Research in Mathematics, chairing the Bridges conference Program committee, and designing and constructing several pieces of mathematical art such as paper triacontahedron, published in *Illustrating Mathematics*, edited by Diana Davis, AMS.

The co-recipients of the 2020 Riley Plymale Award for Excellence in Mathematics are Stephen Mackes and Harrison Verhine. The award is presented to the senior mathematics major whose work has been judged to be exemplary by the mathematics faculty. Stephen is currently pursuing a doctorate in mathematics at the University of Illinois at Chicago. Harrison is completing an MS in engineering at Mercer University. (Submitted by Curtis Herink)

Methodist University (Fayetteville, NC)

The Department of Mathematics welcomed Cecilia Ducloz as an Instructor of Mathematics in Fall 2018. Fall 2020, Dr. Kathleen M. Fick assumed the role of Chair of the Department of Mathematics and Dr. Lewis Walston retired. (Submitted by Kathleen Fick)

Troy University (Troy, AL)

The Department of Mathematics and Statistics at Troy University had a productive year with new innovations. In particular, Dr. Huijun Yi received a PIC Math Grant (NSF, MAA, and NSA) to work with a group of undergraduate students on research problems from industry. In particular, two of the students worked on data analysis with a local plastics recycling company and another two of her students

worked with a trucking and logistics company (who transports parts to car manufacturers) on the vehicle routing problem. One student, Saurabh Bhandari, had two papers published in refereed journals (one with Dr. Vitaly Voloshin in Graph Theory and another with Dr. Danush Wijekularathna in Statistics). Three students did an internship at area high schools and middle schools as part of their mathematics education program. Three more had offers of internships, but were cancelled due to the pandemic. Our department currently has 97 students who are mathematics majors or are in the mathematics education program. We had 15 students inducted into our (Alabama Eta) chapter of Pi Mu Epsilon in spring 2020.

Dr. Robert Vilaridi was a co-PI on a \$1.9 million million Title III Strengthening Institutions grant creating a Central Environment of Support for Student Success from the Department of Education.

Our department was awarded the MAA Tensor and Women in Mathematics grant for the second time to host an outreach event to 7th and 8th grade girls from around our county who play on their school's basketball team. The event was entitled "Mathsketball 2020" in which we incorporated mathematical activities that included computing percentages and averages for individual basketball players and teams. They also did a project on edge-colorings to help develop a schedule for a mock league of teams. The girls also got to meet athletics department staff and coaches who talked to them and demonstrated to them how they use mathematics and statistics in forming a game plan and in-game strategies.

Our department started up a new Mathematics Education Group to meet to discuss policies, information, and have speakers for students in our mathematics education students. We also have started a Microsoft Teams seminar entitled "Trojan Mathematics Seminar," which features research talks from mathematicians across the country and internationally, as well as from TROY; this will continue spring 2021. The schedule of talks can be found at <https://docs.google.com/document/d/1Vroavl9rb-A5451ouxZTUamVNfUqIH95WNMRivrVkhk/edit>. Our departmental math club conducts a weekly Microsoft Teams seminar for TROY students focused on general interest mathematics, graduate school information, student research, and GRE preparation.

Drs. Nick Newman, Hoa Dinh, Danush Wijekularathna, Vitaly Voloshin, Huijun Yi, and Ken Roblee each had papers published in refereed journals. Hoa Dinh, Nick Newman and Ken Roblee gave presentations at conferences and invited seminars. (Submitted by Kenneth Roblee)

University of Alabama (Tuscaloosa, AL)

After 53 years on the faculty, Paul Allen retired in June, 2020.

In August, Simon Bortz joined the faculty. He received his PhD at the University of Missouri, and had postdocs at the University of Minnesota and the University of Washington. He specialized in partial differential equations and harmonic analysis.

Alaric Rohl, who got his combined BA and MA in May, 2020, had a paper On three-dimensional stable long-wavelength convection in the presence of Dirichlet thermal boundary

conditions, published in the Journal of Engineering Mathematics.

Shibin Dai was awarded an MAA Dolciani Mathematics Enrichment Grant to support a Math Club at Northridge Middle School.

Marie Neubrandner, an undergraduate student, had a paper Stochastic Automata Networks and Tensors with Application to Chemical Kinetics, published in the journal SIAM Undergraduate Research Online.

Jeremy Cummings, who got his BA in May, 2020, and his MA in June, received the Randall Outstanding Undergraduate Award from the University of Alabama, for his paper Weighted norm inequalities for the maximal operator on variable Lebesgue spaces over spaces of homogeneous type, which has been submitted for publication in Studia Mathematica.

In September 2019, the Department of Mathematics was awarded the College of Arts & Sciences Dean's Award for Diversity, in recognition for its efforts to create a more diverse math program. (Submitted by David Cruz-Uribe)

University of North Georgia (Dahlonega, GA)

The mathematics department at the University of North Georgia had another year full of faculty achievements and student success.

UNG currently has over 300 undergraduate majors.

Retirements: Gina Reed, Professor of Mathematics, is retiring after thirty seven years of teaching collegiate mathematics with over

thirty years of her career at UNG. During her tenure at UNG, she has received several awards and/or grants at the university, state, and national level. She was an active member of MAA for over thirty years by serving on several committees and presenting at MAA and SESMAA conferences. Also, she was the departmental liaison for over twenty years. She also wrote a chapter in the publication, *MAA Notes: Mathematics in Service to the Community: Concepts and Models for Service-Learning in the Mathematical Sciences*.

New Hires: UNG was excited to welcome new faculty members: Dr. Opal Graham, Dr. John Bergshneider, and Dr. John Bragelman.

Other news:

- Dr. Paula Mullins published the paper below in the American Journal of Physiology: Heart and Circulatory Physiology on January 28th.
"Mullins PD, Bondarenko VE. Mathematical model for beta₁-adrenergic regulation of the mouse ventricular myocyte contraction. *Am J Physiol Heart Circ Physiol* 318: H264-H282, 2020. doi:10.1152/ajpheart.00492.2019."
- On July 9th, 2020, Dr. Opal Graham gave a talk at the Circle Packings and Geometric Rigidity Workshop as an invited speaker at the Institute of Computational and Experimental Research in Mathematics (ICERM) at Brown University.

On February 22, 2020, UNG undergraduate Ikechukwu Obi-Okoye and his faculty advisor Dr. Alejandro Sarria attended the Eagle Undergraduate Mathematics Conference where Ikechukwu presented the talk: "Blowup of Solutions to a Damped 3D Euler Fluid

Equation with Homogeneous Three-Point Boundary Conditions". (Submitted by Alejandro Sarria)

Valdosta State University (Valdosta, GA)

Despite the challenges imposed by COVID-19 on our campus operations, the Mathematics Department at VSU has remained active. We have added new courses, such as Statistical Programming (with R) and Topics in Data Science. Our first certificates in Data Science will be awarded to students this by the end of Spring 2021. Enrollment in the major is up year over year, and we hope to increase our numbers even further with our new tracks in Applied Mathematics – B. S. in Mathematical Biology and B. S. in Computational Mathematics (both still under consideration at the administrative level). We are also supporting a cohort of undergraduate researchers from underrepresented groups as part of the ongoing LSAMP grant activities (Dr. Peggy Moch, co-PI). (Submitted by Shaun Van Ault)

Winthrop University (Rock Hill, SC)

The Math Department is proud to announce the launching of a new data science program here at Winthrop. The new BA in data science started this fall and is ideal for students with high quantitative reasoning skills who are interested in mathematics and computer science. There is currently only one other undergraduate program in data science in the Carolinas.

The Math department Faculty News:

- Dr. Jessie Hamm earned tenure and promotion to Associate Professor.
- Dr. Duha Hamed participated in the International Conference on Statistical

Distributions and Applications that took place in Michigan during Fall 2019.

- Dr. Kristen Abernathy was on sabbatical leave during Spring 2020.
- Dr. Zach Abernathy and Dr. Frank Pullano will both be on sabbatical leave this coming spring.

Student News:

- Approximately 14 students from the department attended UNCG's annual undergraduate math conference, and several gave presentations. The team of Hannah Mitchum and Claire Berchtold won the second-place award for the outstanding student presentation at this conference.
- Four of our spring graduates went onto graduate programs as follows:
- Chris Chamberlin will be pursuing a Ph.D. in Mathematics at Florida State University;
- Hannah Mitchum will be pursuing a Ph.D. in Mathematics at Kansas State University;
- Olivia Greathouse was awarded an NSF GRFP and will be pursuing a PhD in Mathematics at Emory University; and
- Claire Berchtold will be pursuing a Masters at Wake Forest University.

Outreach News:

- Winthrop has continued to host engaging mathematical outreach events for the Rock Hill community. Because of COVID, our outreach was limited this past year to one event: The Kappa Mu Epsilon section at Winthrop hosted another successful Math Day in March. This took place at a local

elementary school where 25-30
undergraduates organized fun math activities
for more than 200 kids.

(Submitted by Duha Hamed)

Annual Meeting Information

One Hundredth Annual Meeting Mathematical Association of America, Southeastern Section

Meeting Announcement: The one-hundredth annual meeting of the Mathematical Association of America, Southeastern Section will be held virtually on Saturday March 6th and Saturday March 13th, 2021. We wish to express our thanks and our regrets to the planned hosts of our originally scheduled in-person conference at the University of North Alabama in Florence, AL. We hope to return as a section to Florence sometime soon.

The association invites all interested persons to participate. Attendees may preregister and pay online through the meeting website at <https://maasoutheastern.org/2021-conference/>.

Up-to-date information about the conference (program, registration, etc.) will be available on the conference website at <https://maasoutheastern.org/2021-conference/>.

General Sessions: There will be four plenary sessions with five speakers:

- Business, industry, or government speaker, funded through an MAA Tondeur Career Activity grant (to be announced)
- Ron Taylor (Berry College), Section Lecturer
- 2019 MAA-SE Section teaching award winners: Julie Barnes (Western Carolina University) and Nicole Panza (Francis Marion University)
- 2020 MAA-SE Section teaching award winners: Ratnasingham Shivaji (University of North Carolina at Greensboro) and Andrew Penland (Western Carolina University)

Distinguished Lectures for Students: Speakers to be announced. See the conference website at <https://maasoutheastern.org/2021-conference/> for details as they become available.

Short Courses and Workshops: There are workshops available at no additional charge, but for which participants must pre-register. They are:

- *Demystifying Desmos Activities*, Chris Raridan and Dniel Bizzell (Clayton State University)
- *Incorporating Modeling in Your Differential Equations Course*, Audrey Malagon (Virginia Wesleyan University)
- *More than Set Theory: An Intersectional Approach to Diversity in Mathematics*, Catrina May (Georgia State University)
- *Virtual Courses Require Mastery-Based Solutions*, Sydney Smith (Hawkes Learning)

Abstracts for the workshop are included at the end of the announcement as well as on the conference website.

Call for Contributed Papers: The officers of the Section invite the submission of titles and abstracts for 15 minute contributed papers in all areas of mathematics by college and university faculty, graduate students, and undergraduate students, and others. Abstract submissions can be made through the conference website. The abstract submission deadline is **Monday, February 15, 2020**. Talks will be scheduled in concurrent sessions and organized by the general mathematical area as indicated by the abstract.

In addition to general contributed paper sessions, there will be several special sessions on selected mathematical topics. They are:

- *Inquiry Based Learning in Online and Socially Distanced Classrooms*, Joseph Barrera (Converse College), Mandy Mangum (Converse College), Allie Ray (Birmingham-Southern College), Hwayeon Ryu (Elon University), Joseph Spivey (Wofford College)
- *Mathematics Outside of Teaching Math*, William Cocke (Army Cyber Institute), Lee Troupe (Mercer University)
- *Opportunities in Data Science for Undergraduate Programs*, Kristen Abernathy (Winthrop University) and Zach Abernathy (Winthrop University)
- *Recreational Mathematics*, Timothy Goldberg (Lenoir-Rhyne University)

Abstracts are included at the end of this announcement as well as on the conference website.

Guidelines for Titles and Abstracts: Abstracts are expected to deal with theory, application, teaching, history, or philosophy of mathematical sciences; they should indicate what the presenter intends to communicate in the allotted time. For multiple authors, the presenting author's name should be clearly designated; please identify undergraduate and graduate student presenters/authors. The use of special symbols should be considered judiciously; however, if an abstract includes LaTeX formatting, this can be rendered when compiling the abstracts for publication.

Undergraduate Poster Session: Students are encouraged to present research and results of special projects in poster format. The exact format of poster sessions in our online format is to be determined; they will be scheduled concurrent with contributed talks. Abstracts should be submitted through the conference website no later than **Monday, February 15, 2020**. Contact organizer Karen O'Hara (kohara@highpoint.edu) if you need additional information.

Project NExT-SE: Project NExT-SE (New Experiences in Teaching) is the Southeastern MAA Section's version of the national program for new and recent Ph.D.s in mathematical sciences interested in improving the learning and teaching of undergraduate mathematics. All national and section Project NExT fellows are invited to attend! Events will be held virtually on the evenings of Friday, March 5th and Friday, March 12th, prior to the annual section meeting. Contact Kristen Abernathy (abernathyk@winthrop.edu), Zach Abernathy (abernathyz@winthrop.edu), or Molly Fenn (mafenn2@ncsu.edu) for more information. See a call for applications on Page 57 of this newsletter.

Social events: On the evenings of Friday, March 5th and Friday, March 12th, we will host social events similar to our traditional Treasure Hunt and Math Jeopardy. If you have any questions about these events or would like to volunteer to help, please contact Julie Barnes (jbarnes@email.wcu.edu) (Treasure Hunt) or Ron Taylor (rtaylor@berry.edu) (Math Jeopardy).

Pre-Registration: Registration for the meeting is free, but pre-registration is required. Please see the conference website (<https://maasoutheastern.org/2021-conference/>) for registration.

Workshop Abstracts

Demystifying Desmos Activities, Chris Raridan and Dniel Bizzell (Clayton State University)

Abstract: Desmos is a free, online, computation and graphing utility that is very intuitive to use but also quite powerful. One aspect of Desmos that makes it such an appealing tool for the classroom is that we can use it to create activities that engage students in active learning and critical thinking exercises. If an instructor is teaching face-to-face, online synchronously, online asynchronously, or some combination of these modalities, that instructor can implement meaningful Desmos activities that will introduce students to some new topic or encourage students to "dig deeper" into a topic already discussed. And Desmos activities can be adapted for biology, chemistry, physics--you name it!

In this workshop, we will introduce participants to the wealth of Desmos activities that have already been created and we will discuss how we can copy and edit these existing activities. Then, we will guide participants through the creation of several styles of Desmos activities, including the student friendly card sort activities. We will also introduce the "computation layer documentation" (aka CL-code), an extremely simple scripting language that can be implemented to provide self-checking of the Desmos activities.

We guarantee that all participants will leave the workshop with at least one Desmos activity that they will be able to use in their spring 2021 classes. Start thinking of some topics now!

Incorporating Modeling in Your Differential Equations Course, Audrey Malagon (Virginia Wesleyan University), Jeff Denny (Mercer University)

Abstract: This workshop will showcase how to incorporate modeling-based approaches in an undergraduate ordinary differential equations course. Attendees will participate in hands-on, active small group work to experience using modeling to teach differential equations. We will demonstrate ways to include modeling and share experiences in designing and using modeling-focused classroom materials, helping participants gain confidence in incorporating modeling effectively in the classroom. We'll share resources from the Systemic Initiative for Modeling Investigations & Opportunities in Differential

Equations (SIMIODE) website and give participants an opportunity to customize materials for use in their own courses. Participants will also have access to post-workshop support through the SIMIODE online community if they choose.

More than Set Theory: An Intersectional Approach to Diversity in Mathematics, Catrina May (Georgia State University)

Abstract: As diversity, equity, and inclusion (DEI) efforts become increasingly central to higher education initiatives across the country, it is crucial that members of academia from all disciplines gain a better understanding of inclusive practices in their research and teaching. In particular, many universities and fund-granting entities such as the NSF are focused on the recruitment and retention of underrepresented and marginalized students in STEM fields. This interactive workshop will introduce and define important terms and “buzzwords” present in conversations regarding DEI in higher education. Participants will write and receive feedback on DEI-centered grant application and diversity statement excerpts, and they will identify and discuss multiple concrete strategies for creating more inclusive mathematics classrooms and departments. Set theory, a topic familiar to mathematicians, will be used as a framework to explore the importance of intersectionality in DEI dialogue. Workshop discussions will be centered on issues facing women, people of color, LGBTQ+ individuals, and other marginalized groups in mathematical spaces. These conversations will help our community of educators and researchers become more informed and genuine in our commitment to creating a diverse, equitable, and inclusive field where ALL mathematicians have the opportunity to succeed.

Virtual Courses Require Mastery-Based Solutions, Sydney Smith (Hawkes Learning)

Abstract: In today’s virtual landscape, how do we ensure that students are truly grasping course content? A competency-based approach to learning is a clear solution that sets goals for students and gives them the flexibility and resources to achieve them. Discover how Hawkes’ mastery-based, 3-step approach fosters genuine competency by removing learning aids, adapting to individual proficiencies, providing corrective remediation, and compiling reports that allow instructors to intervene before students fall behind. (Attendees will have a chance to win one of three \$25 Amazon gift cards!)

Special Session Abstracts

Inquiry Based Learning in Online and Socially Distanced Classrooms, Joseph Barrera (Converse College), Mandy Mangum (Converse College), Allie Ray (Birmingham-Southern College), Hwayeon Ryu (Elon University), Joseph Spivey (Wofford College)

Abstract: This session will include presentations of various inquiry based learning (IBL) techniques and activities that have been adapted to fit new styles of instruction, including online synchronous and asynchronous as well as in-person socially distanced classrooms.

Inquiry based learning (IBL) has been adopted by many faculty because of its emphasis on student-centered learning through collaboration, deep engagement with the material, and inclusive practices. With the Covid-19 pandemic and the move to different methods of instruction, these IBL techniques became more difficult to implement. This special session will give faculty many tools so they can adapt daily activities or the structure of whole courses to continue using IBL in these new settings. The session organizers started a Southeastern-IBL Consortium this semester and have been holding monthly meetings discussing these ideas. In selecting speakers, the session organizers will make sure we have a variety of classroom settings as well as different levels of mathematics represented in the talks.

Mathematics Outside of Teaching Math, William Cocke (Army Cyber Institute), Lee Troupe (Mercer University)

Abstract: Often the only practitioners of mathematics that students encounter are mathematics instructors in the classroom. It is common to try and use the ubiquity of "mathematical thinking" as equivalent to the ubiquity of mathematics. However, students are rarely given concrete examples of mathematics outside of academia. This does not accurately portray the reality that mathematicians can be found in many different places, doing many different kinds of mathematics. This session will bring together several professionals from outside math departments, part of whose work consists of doing mathematics. The session speakers will come from industry, government, and non-mathematical academic backgrounds. The session will conclude with a panel discussion led by the organizers with questions coming from both audience members and collected in advance from classrooms.

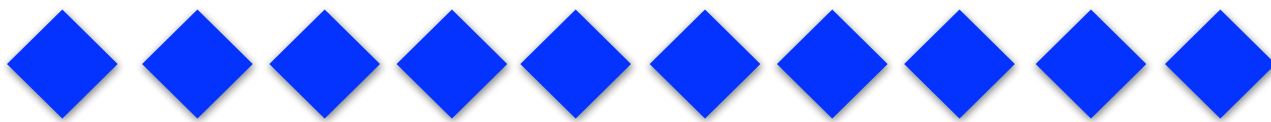
Opportunities in Data Science for Undergraduate Programs, Kristen Abernathy and Zach Abernathy (Winthrop University)

Abstract: Data science is a highly employable field that combines statistics, computer science, mathematics, and substantive domain knowledge (often business). Since 2007, over 500 programs in data science have sprung up. Until recently, the majority of these programs have been master's degree, PhD, or certificate programs. With the growing opportunity to offer undergraduate programs in data science, a Park City Mathematics Institute group met in 2016 to formulate curricular guidelines for undergraduate data science. In this session, we hope to expand on these efforts and discuss problems, issues, and

resources faculty have encountered in creating curricular and co-curricular opportunities in data science.

Recreational Mathematics, Timothy Goldberg (Lenoir-Rhyne University)

Abstract: “Recreational mathematics is inspired by deep ideas that are hidden in puzzles, games, and other forms of play.” (Robert Vallin, quoted in “Three New SIGMAAs Formed”, by Jacqueline Jensen-Vallin, MAA Focus Vol. 38, No. 2, April/May 2018.) The field of recreational math includes a startling variety of mathematical ideas and strategies, and tends to be especially entertaining and accessible. (And they make wonderful examples and research projects for students!) This session is devoted to talks related to recreational math, in any of its myriad forms!



CALL FOR APPLICATIONS:

SECTION NExT-SE

We are pleased to announce that applications for Section NExT-SE will be open December 18th through February 13th!

Applications are open to faculty in their first five years of full teaching, as well as graduate students completing their Ph.D. in 2021. Applicants selected to participate in Section NExT-SE will attend workshops geared toward early career faculty at the virtual MAA-SE Sectional Meeting in March. The application, with more information about the program, can be found at:

<https://maasoutheastern.org/about/section-next-se/>

MAA SOUTHEASTERN SECTION OFFICERS

2020-2021

| | |
|--|--|
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MAA SOUTHEASTERN SECTION COMMITTEES

2020-2021

Section Teaching Awards:

Valerie Miller (Georgia State University)
Julie Barnes (Western Carolina University)
Ratnasingham Shivaji (UNC Greensboro)
All the State Directors

Section Service Award:

Pat Humphrey (Georgia Southern University)
Julie Barnes (Western Carolina University)
Tim Goldberg (Lenoir-Rhyne University)
Jeff Knisley (East Tennessee State University)
Allie Ray (Birmingham Southern College)
Antara Mukherjee (The Citadel)
Jeff Denny (Mercer University)

Site Selection:

John Mayer (University of Alabama at Birmingham)
Curtis Herink (Mercer University)
Meredith Burr (Clemson University)

Southern Section MAA Website

<https://maasoutheastern.org>