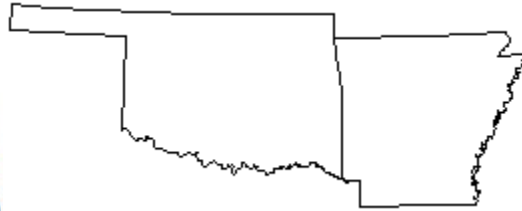


2022 Oklahoma-Arkansas Newsletter



MAA



Department News

The following newsletter submissions were submitted to the communications director on or before March 14, 2022. If you would like to submit a summary of the fantastic things that your department and department members have been doing, contact csauer@cameron.edu.

Cameron University

Christopher Sauer

In the spring of 2021, Cameron University hosted the 82nd Annual Oklahoma-Arkansas MAA Sectional. Due to the pandemic, the sectional was hosted virtually, and 122 students and faculty from Oklahoma and Arkansas participated. Cameron had several students present during the parallel sessions. One of our students, **Luke McClendon**, won second place in the RB Deal Undergraduate Presentation Award and third place in the integration bee.

Like many schools, the pandemic has affected our undergraduate student organization, **MathCom**, and we have been unable to arrange in-person meetings. With that said, in 2021, Cameron's **Pi Mu Epsilon** chapter inducted five new members. As we continue to move past the pandemic, we are hopeful that we can reenergize participation in our student organizations.

Dr. Argyros continued his prolific research output. Dr. Argyros reviewed 41 papers and one book. He also published 40 papers, one book, and two chapters in books written by other colleagues. For a complete listing of his academic accomplishments, [click here](#).

Finally, we were sad to lose two colleagues. Instructor **Barbra Jinks** retired at the end of fall 2020, and our department chair, **Dr. Naryan Thapa**, took a position as Dean of Mathematics at Dallas College. **Dr. Muhammad Javed**, chair of Cameron's Computing and Technology department, has been named interim chair.

Henderson State University

Carolyn Eoff

Despite the pandemic, our graduates in 2021 were successful in securing lucrative positions in industry and education. Department chair **Carolyn Eoff** was honored with the 2021 OK-AR MAA Section award for Distinguished College or University Teaching of Mathematics at the annual section meeting. We were sad to lose two colleagues who took positions at other institutions; **Dr. Debra Coventry** went to Ouachita Baptist University, and **Trae Warner** went to National Park College. Michael Lloyd developed a new course in statistical quality control.

Northeastern State University

Martha Parrott

The Northeastern State University Department of Mathematics and Computer Science would like to welcome their newest faculty members. **Dr. Chuang Shao**, Assistant Professor of Mathematics, comes to NSU from Rose State College. She earned her Ph. D. in Mathematics from the University of North Texas. Her research interests focus on the foundation of mathematics and mathematical logic, especially descriptive set theory of Polish group actions and classification problems, and also on pedagogy, especially designing lectures with quantitative reasoning. **Mr. Austin Beard**, Instructor of Mathematics, comes to NSU from Springfield, Missouri, where he recently completed his M. S. in Mathematics from Missouri State University. His thesis, *Proper Sum Graphs*, expands upon the research of Dhorajia. The department is pleased to offer a B. S. in Mathematics (select from Mathematics Generalist or Mathematics Education), an M. Ed. in Mathematics Education, a graduate-level STEM Education Certificate, and a B.S. in Computer Science. The computer science program just completed a glowing OSRHE five-year program review in the fall of 2021. The NSU student chapter of **Kappa Mu Epsilon** has returned to in-person meetings following a more silent year as the restful of the pandemic. Nine students were initiated into KME during the fall 2021 semester. **Dr. Mark Buckles**, Associate Professor of Mathematics, is the lead sponsor of the NSU-KME chapter.

NSU undergraduate and graduate students value opportunities to engage in research with their faculty mentors. Examples of current student research in the department include:

- **Senior Kyla Willever**, who is exploring the factorization in rings of integers obtained by algebraic extensions of the rational numbers (supervised by **Dr. Richard Hasenauer**, Associate Professor of Mathematics), b)

- **Senior Luan Nguyen** is investigating the topic of semigroups (supervised by **Dr. Richard Hasenauer**)
- **Senior Emily Tackel's** mathematics education research focuses on the implication of COVID-19 on student learning (supervised by **Dr. Martha Parrott, Professor of Mathematics**).
- Graduate students in the mathematics education program engage in scholarship through research or original creative instructional design. **Dr. Martha Parrott** is the Chair of the M. Ed. Mathematics Education program.

Examples of other student accomplishments include **Luan Nguyen**, who will complete his B. S. in Mathematics in May 2022. Luan has been accepted into the Ph. D. in Mathematics program at Oklahoma State University for fall 2022.

Ashley Titsworth, who is pursuing a B. S. in Mathematics – Education Option, will be honored in March as an **Oklahoma DaVinci Institute 2022 DaVinci Scholar**. This award recognizes her potential as a future teacher in the areas of scholarship, creativity, inventiveness, teaching techniques, and responsibility.

The **NSU – Mathematics Clinic**, a service outreach initiative in which teacher candidates provide individualized assessment and instruction for K-12 students from the community during the fall and spring semesters on the NSU-Broken Arrow campus, has continued to serve the community throughout the pandemic. Clinic teachers refused to allow COVID 19 to become a barrier to service and have become very intentional about looking for an opportunity in spite of obvious challenges. Now our clinic teachers receive coaching support so that they can learn to teach not only in a traditional face-to-face classroom but also in a virtual classroom with digital mathematics resources. Clinic director, **Dr. Martha Parrott**, has shared how we have reimagined the preparation of future teachers during the pandemic shift to remote learning in multiple conferences. Next up is her presentation at INTED 2022 Spain (16th Annual International Technology, Education, and Development Conference).

Oklahoma Baptist University

Sarah Marsh

Due to university restructuring, OBU's Department of Mathematics is now the Division of Mathematics, and Dr. **Cherith Tucker** is serving as our first Division Chair. In other personnel news, Dr. **Krista Hands** was promoted to Professor during the 2020-21 academic year. Congratulations to both Dr. Tucker and Dr. Hands!

Oklahoma State University News

Anthony Kable

A number of faculty members, graduate students, and alumni received significant recognition. **Paul Fili** was selected for the Regents Distinguished Teaching Award. **Xu Zhang** won the Holistic Science Prize for his work at the interface of computational mathematics and engineering, and he was also awarded the Ralph E. Powe Junior Faculty Enhancement Award by ORAU. **John Paul Cook, Xu Zhang,** and **Jiahong Wu** all had standard NSF proposals funded during the year. Graduate student **Scott Hader** won the Robberson Summer Dissertation Fellowship, a prestigious university-wide fellowship that supports students who are finishing their dissertations. Alumnus **Mario White** was inducted as an honorary member of the OSU chapter of Phi Beta Kappa.

Melissa Mills was promoted to Teaching Associate Professor. Department Head **Chris Francisco** is on leave while he serves as Interim Vice Provost. **Lucas Martins Stolerman** joined the department. He is a specialist in mathematical biology, particularly epidemic modeling. **William (Bus) Jaco, Weiping Li,** and **Roger Zierau** retired.

Joe Silverman (Brown U) visited OSU and delivered the inaugural lecture in the annual Distinguished Colloquium series. This series is organized by **Igor Pritsker** with support from the Vaughn Foundation. The OSU chapter of the Association for Women in Mathematics has been revitalized under the leadership of **Bella Tobin** and **Neil Hoffman**. **Susan Morey** (Texas State) was the inaugural speaker in the Distinguished Women in Mathematics Colloquium series, which is organized by our AWM chapter and supported by the OSU President's Fellows program. Based on her distinguished career in government service, particularly with the CIA, the department honored **Charlene Leubecker** as its 2021 Outstanding Alumna.

Southern Nazarene University

Nicholas Zoller

Dr. Nicholas Zoller advanced in rank from Associate Professor to Professor in January 2022. Dr. Zoller has been a full-time faculty member at Southern Nazarene University (SNU) since Fall 2009 and the chair of the Math Department since Fall 2016.

Dr. Zoller supervised several research projects over the past year. During the Spring 2021 semester, **Cassidy Davila** studied ways in which secondary mathematics teachers can use augmented reality in their classrooms. In Summer 2021, **Jaime Acre** and **Caleb Cornelius** investigated how Kepler's Laws change in taxicab geometry. In Fall 2021, **Bailey Grimes** and **Caleb Frazier** studied secondary mathematics teacher perceptions of student learning since the

beginning of the COVID-19 pandemic. Also, in Fall 2021, **Madison Arnold** developed a linear model to predict the winning percentage for Great American Conference softball teams.

Adjunct instructor **Laura Jergensen** continued her institutional research study about the Math Department's transition to using a corequisite College Algebra course in addition to a traditional College Algebra course. Preliminary data suggest student performance in the corequisite course compares favorably with student performance in the traditional course.

University of Oklahoma

Nikola Petrova

RECENT ADDITIONS

Yan (Mary) He joined the department as a tenure-track Assistant Professor. She is an expert in Dynamical Systems and Geometric Topology. Mary holds a Ph.D. from the University of Chicago, and she has held postdoctoral positions at the University of Toronto and the University of Luxembourg.

Nicholas Brown is a new Renewable Term Faculty. He arrived from South Dakota State University, where he earned his undergraduate and graduate degrees. Nick's doctoral thesis was on Functional Analysis.

Samuel Lin is a new postdoc arriving from Dartmouth College, where he held a postdoctoral position. He earned a Ph.D. from Michigan State University. Sam works on Riemannian Geometry and Spectral Geometry. His mentor will be **Ricardo Mendes**.

Joshua Pankau is a new postdoc working in Geometric Group Theory. He holds a doctoral degree from UC-Santa Barbara. Prior to coming to OU, Josh was a postdoc at the University of Iowa. **Jing Tao** will be his mentor.

Harrison Gaebler is a new postdoc working on Functional Analysis and PDEs; he will be mentored by **Alejandro Chávez-Domínguez** and **Jonh Albert**. He holds a Ph.D. from the University of Kansas.

SPECIAL EVENTS/ACHIEVEMENTS

Andy Miller retired after a distinguished 40-year career as a faculty in the department. During this time, he was the advisor of four Ph.D. students and served as a Chair of the department between 2012 and 2016. In 2012 he was awarded a David Ross Boyd Professorship – one of OU's highest honors.

Javier Alejandro Chávez-Domínguez and **Justin Malestein** were granted tenure and were promoted to Associate Professors.

In August 2021, our colleague **Jing Tao**, together with Tullia Dymarz (Wisconsin) and Sara Maloni (Virginia) organized the first in-person meeting of the "Women in Groups, Geometry, and Dynamics Research Retreat" near the Glacier National Park in Montana. A total of 22 female mathematicians (junior and senior) worked in small teams on different research projects; the team members spent a year prior to the retreat for background reading on the project. The meeting was funded in part by Jing Tao's NSF CAREER grant.

Jing Tao and **Ying Wang** received Anadarko Petroleum Corporation Presidential Professorships.

Our First Year Math Team participates in the work on several grants:

- **Deborah Moore-Russo** (Co-PI) with **Ashley Berger** and **Christine Tinsley** (Senior Personnel) have NSF research grant DUE-2043918 titled "Identifying & Implementing Evidence-Based Online Tutoring Practices: Online Practices for Tutoring In Mathematics Using Meaningful (OPTIMUM) Interaction."
- **Deborah Moore-Russo** (Co-PI) has NSF grant DUE-2120660 entitled "Taking CalcPlot3D to the Next Dimension: Creating 3D Printed Learning Materials."
- **Deborah Moore-Russo** (Co-PI) and **Casey Haskins** (Senior Personnel) have NSF grant DUE-2130371 titled "Computer Science Indigenous Community of Learners United to Develop, Excel, and Succeed."

Keri Kornelson is serving as a Chair of the Faculty Senate in 2021/22.

Emily Gunawan spent Fall 2021 as a participant in a program on cluster algebras and representation theory, held at the Isaac Newton Institute for Mathematical Sciences in Cambridge.

The graduate student **Nathan Jones** (advisor **Miro Kramár**) was awarded a SMART (Science, Mathematics and Research for Transformation) scholarship from the US Air Force.

In addition to **BS and BA in Mathematics**, the department also offers an Accelerated **BS/MS degree in Biostatistics** (together with the OU Health Sciences Center), and **Accelerated Math/MBA** and **Math/MS in Finance degrees** (together with the OU Price College of Business).