



Ohio Focus

The MAA Ohio Section Newsletter

Volume 10

Fall 2019

Number 15

Shawnee State University Welcomes Ohio MAA to Portsmouth on October 25-26

The Fall Meeting of the Ohio Section MAA is scheduled for October 25–26 at Shawnee State and will feature a panel discussion in addition to the invited speakers. CONCUR (Committee on Curriculum) will sponsor the panel discussion on “My Experience Teaching a Co-Requisite Course”. The panelists are **Emily Dolsak**, Youngstown State University, **Shannon Miller-Mace**, Marshall University, and **Najat Baji**, Sinclair Community College. The speaker line-up includes **Brian Shelburne**, Wittenberg University, **Barbara Margolius**, Cleveland State University, with two presentations by MAA Section Visitor **James Sellers**, University of Minnesota. There will be contributed paper sessions on Friday afternoon and Saturday morning. Graduate and undergraduate students in mathematics or related fields are encouraged to attend.



Two Ohio Section Members Honored During MathFest Prize Session



Alicia Prieto-Langarica, Youngstown State University, was one of the recipients of the prestigious Henry L. Alder Award. Her MathFest presentation in conjunction with this award was titled “*Teaching with H.*” You can find her article “Co-Mentoring Collaborations” with fellow Alder Award winner Pamela E. Harris in the August/September 2019 issue of *MAA FOCUS*.

Chris Swanson, Ashland University, was selected as the Meritorious Service Award winner from the Ohio Section. The choice was based on his many years of dedication to promoting student participation in our Section and in mentoring young faculty through Ohio NEXt, as well as in leadership as our first two-year term President (2016-2018).

MAA Connect in Process of Being Installed to Promote Community

Welcome back to the fall semester. I hope this issue of the Ohio Focus finds your semester off to a good start. Although you won't be reading this for a while, I just returned from Mathfest in Cincinnati and was excited to see many of you there. For those that weren't able to make it, I want provide some updates on some exciting things you may have missed.



First, join me in congratulating two of our section members on receiving national awards. Alicia Prieto - Langarica received the Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member. As an Alder Award recipient Alicia gave an inspiring presentation on how her family taught her about responsibility and follow-through and how she aims to teach that to her students in order to help them be successful.

Chris Swanson received the Certificate for Meritorious Service Award for his continued service to the Ohio Section as President, Section NExT Coordinator and a member of CONSTUM, as well as his involvement with the national

NExT program by offering over half a dozen workshops for the fellows since 2003.

It was such a pleasure to see two Ohio Section members honored at the MAA Prize Session on Friday morning of Mathfest. We have so many outstanding faculty in Ohio (and Cabell County WV) so please consider nominating your colleagues

for one of the section or national awards. In addition to the Henry L. Alder Award (Deadline: October 1), there is also the Gung and Hu Distinguished Service Award (Deadline: December 1) and the Dolciani Award (Deadline: October 1). Additional information about the nomination process can be found on the national MAA website. Also, remember that nominations for the Ohio Section Teaching Award are due January 1 and can be sent to Barbara D'Ambrosia (bdambrosia@jcu.edu), secretary for the Award Committee.

I also wanted to provide an update on a new policy regarding the section nominee for the Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics (Deadline: March 1). In the past, the process for selecting the Section's nominee for the Haimo Award was based simply on nominating the immediate past year's Ohio Section Teaching Award winner. At the summer executive meeting it was discussed and voted on to open the nomination for the Haimo Award to

all previous Ohio Section winners in order that we be able to revise and resubmit nominations of outstanding professors when possible. The Teaching Award Committee will review all past nominations, select the candidate they feel is most deserving of the nomination for the Haimo Award and work with the nominee to update their packet before submitting it to the MAA secretary.

I'd like to thank the section for the financial support that allowed me to be a representative at the section officer's meeting where we discussed and gave feedback on how national can better serve the sections. One exciting initiative is the new member-based platform MAA Connect which has the goal of increasing community building among MAA members by making it easier to connect with other mathematicians within their network and around the world. This new platform will also give us more flexibility in delivering relevant information to our section members in a timely manner. MAA Connect has already been rolled out for the section officers and SIGMAAS with the plan for full onboarding for all members this fall. Please keep an eye out for emails from national about how to register and get connected.

The spring Ohio Section meeting was an exciting one for me as I got to serve as both president and help with local arrangements. I'd like to sincerely thank Laurie Dunlap and Malena Espanol for leading the charge to plan the meeting and to Mike Schroeder, 2018-19 Program Chair, for putting together a remark-

(Continued on page 4)

National Association Adds New Inclusivity Award and SIGMAAs

Wasn't that a great meeting we just wrapped up? Of course, I'm talking about MathFest 2019 just a few short weeks ago here in Cincinnati - and so soon after the Columbus MathFest that closed the MAA Centennial celebration in 2016, also hosted here in the Ohio Section! I'm so pleased to have had the chance I had to expose some of my closest professional friends to Graeter's mocha chip ice cream (best in the world!) on Cincinnati's Fountain Square. It was equally great to be exposed to the exciting work we all are doing as an Association promoting interest in mathematics through the meeting program.



Highlights of this most recent MathFest for me included outstanding Hedrick Lectures by Laura DeMarco on connections between complex dynamical systems and number theory on elliptic curves, and Eric Demaine's address on the amazing mathematical work of Martin Gardner. I also attended the Awards ceremony at which Chris Swanson (Ashland University) and Alicia Prieto-Langarica (Youngstown State University) were recognized as described elsewhere in this issue. Also notable there was the award of the first MAA Inclusivity Award to Sylvia Trimble Bozeman (Spelman College), co-founder of the highly recognized Enhancing Diversity in Graduate Education (EDGE) program, which has successfully supported women and minority students in completing graduate programs in the mathematical sciences since 1998.

The day before MathFest began, I attended the meeting of the MAA Congress as your Ohio Section Representative on that body. I think you will find some of what I learned there useful and of interest to you.

First, it's a very exciting time in the history of the MAA as we discern new ways to serve now and into the future. At the beginning of its second century, MAA has a revised mission statement ("to advance the understanding of mathematics and its impact on our world") and stated Core Values of "community, inclusivity, communication, and teaching & learning"

which are focusing our attention on how we should best utilize our resources. After an extended period of some financial instability during which the Association was losing money in the tightening publications market and in its co-hosting obligations at the Joint Mathematics Meetings, MAA has stabilized its budget, negotiated new publications partnerships, and is moving toward making MathFest its primary national meeting. Congress also had much discussion about a new idea for a program of "microvolunteering". This would recommend small activities that members could engage in for just a few hours of time in service to the MAA and

the mathematical community. I expect you may see something more concrete come from this soon.

In an era when membership in professional societies is down everywhere, MAA's new Department membership program is growing our young student members significantly, up 46% from 2017 to 2018! Also supporting members is the creation of three new SIGMAAs which focus on: Mathematical Knowledge for Teachers (MKT SIGMAA), Mathematics and Sports (Sports SIGMAA) and Recreational Mathematics (Rec SIGMAA). In addition, the MAA continues to promote careers in mathematics to its young members, including those outside of academia, through programs like PICMath (Preparation for Industrial Careers in Mathematical Sciences). And with the support of new donated funds, the MAA is offering a round of BIG ("business, industry and government") Career Activities at MAA Section Meetings in coming years. Look also for the new fourth edition of 101 Careers in Mathematics (first published in 1996 by Andy Sterrett of Denison University for MAA Press) to hit the shelves this year.

Other publications are evolving, too. If you haven't read the MAA FOCUS carefully in a while, you'd be surprised how much the magazine has changed; it's now full of news about people and ideas in mathematics and has a lively new layout. MAA membership now grants you access to more than just MAA publications. Point your browser to maa.org and see how you now have access

(Continued on page 4)

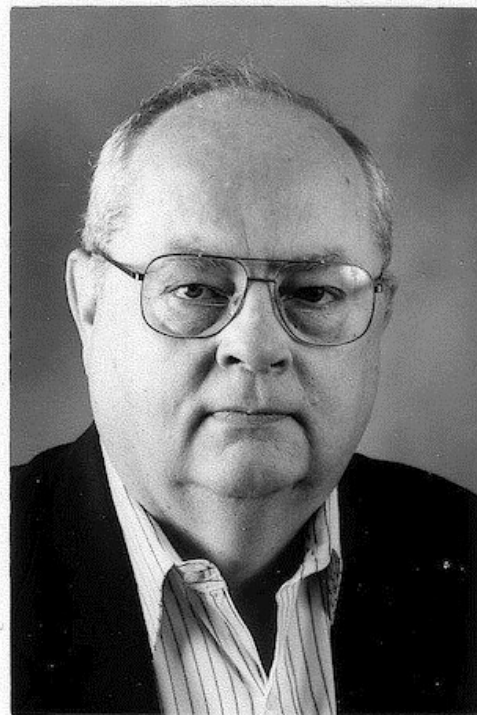
In Remembrance of Thomas A. Hern

Thomas Albert Hern was born December 23, 1941 in Cincinnati, the oldest son of Harry Thomas and Jane Louise (Bader) Hern. At Withrow High School, Tom entered the Advance Placement sequence in mathematics, allowing him to take calculus his senior year with teacher Martha Graham. It was her teaching style that Tom adopted into his own educational career.

As an engineering student at University of Cincinnati, he was a co-op intern at Texas Instruments in Dallas, Texas, alternating school and work terms before he switched his major to mathematics. Tom earned his doctorate at Ohio State University in 1969 with specialty in probability. His career was primarily at Bowling Green State University, although he did spend 1982-1984 in the Computer Science Department of University of North Carolina at Chapel Hill working on a molecular graphics project. Twice Tom was awarded for "Excellence in Teaching Mathematics" by Kappa Mu Epsilon, the undergraduate mathematics honorary at BGSU.

Tom served the Ohio Section as Program Committee Chair (1985-86); President (1993-94); and Governor (2003-06). He was the Newsletter Editor (1997-2002) and the Section's first Webmaster (1995-2003). He received the Ohio Section Teaching Award in 1998 and an MAA Certificate for Meritorious Service in 2004. Tom was a Co-Developer of the Ohio Masters of Mathematics on-line collection of biographies and a key member of the Ohio Section Centennial Committee. In 1983 he was a member of the MAA Delegation to the Peoples Republic of China.

In 1998 he retired from teaching full time at BGSU although he continued to contribute to the math community. In his leisure time, he enjoyed reading, photography, classical music concerts, genealogy and travel. Tom took trips abroad to Kenya/Tanzania, Egypt, China, Europe, England, and Ireland. His domestic travels included Alaska, Hawaii and train and riverboat trips. Tom died May 30, 2019 and he will be greatly missed.



"Tom Hern was a teacher par excellence. For twenty-nine years he taught a wide variety of mathematics courses at Bowling Green State University. He loved teaching and his students loved him. Tom spent untold hours with them, often long into the evening, helping them, encouraging them, and serving as a mentor".

- Dr. Fred Rickey
Colleague from Bowling Green

Section Representative's Message

(Continued from page 3)

there to articles from magazines like PRIMUS and Chance, among others. Also check out the new Math Values blog at mathvalues.org.

Finally, as your Section Representative to Congress, I'm happy to carry your concerns with me to discuss with fellow members of Congress and with the MAA leadership; do let me know what you're excited about in the mathematical world or what concerns you have: feel free to email me at otero@xavier.edu.

*Danny Otero
Xavier University
Section Representative*

President's Message

(Continued from page 2)

able line-up of speakers. I'm looking forward to this fall's meeting at Shawnee State as I know John Whitaker has been working hard to organize logistics and Moez Ben-Azzouz has invited some wonderful speakers. I'm looking forward to my second year as president and to seeing you at the fall meeting.

*Katie Cerrone
The University of Akron
Section President*

Dr. Gordon Swain Honored for Teaching Excellence at Spring Meeting

Dr. Gordon Swain of Ashland University is the recipient of the 2019 Ohio Section of the MAA Award for Distinguished College or University Teaching of Mathematics.

Dr. Swain received a Bachelor of Science degree in mathematics and physics from Eastern Nazarene College in 1985, a Master of Science degree in mathematics from the University of Vermont in 1987 and a Doctor of Philosophy degree in mathematics from the University of Massachusetts-Amherst in 1993. His research specialty is noncommutative rings with additional interest in the historical development of mathematics. Dr. Swain has been an active member of the MAA since 1994, a member of CONSTUM from 1997 to 2003. He is also a member of the American Mathematical Society and the Association of Christians in the Mathematical Sciences.

Dr. Swain has consistently been involved with student organizations connected to the Ashland University Department of Mathematics and Computer Science. He was the faculty advisor for the student chapter of the MAA for several years and is currently serving as the faculty advisor for the Ohio Rho Chapter of the national mathematics honorary Pi Mu Epsilon. Dr. Swain has organized two career panels of AU alumni over the last 5 years. Most significantly, in 2011, Dr. Swain started the departmental Problem Solving Group, more affectionately known by students as PSG. This group meets bi-weekly to attempt to solve problems posted in professional mathematical journals. Dr. Swain has served as the site director at Ashland University for the Ohio Council of Teachers of Mathematics contest since 2015, soliciting assistance from undergraduate mathematics majors



to proctor the contest on Ashland University's campus.

In 1999 Dr. Swain received an Ashland University Academic Mentor Award. This is significant in that a student must voluntarily write an unsolicited nomination letter for this award. He also received the Ashland University Taylor Excellence in Teaching Award in 2001. Only one faculty member receives this award each year and thus this does represent a significant accomplishment.

Comments from Dr. Swain's students present additional evidence of his teaching excellence. A student who is currently being mentored by Dr. Swain for her Honors Capstone Project wrote, "I took Dr. Swain's class on Abstract Algebra and group theory. It was one of the hardest mathematics courses that I have taken at Ashland University, but Dr. Swain piqued my interest in the topic so much so that I have chosen my thesis topic to involve group theory." One of his advisees stated, "In addition to learning a lot of math from Dr. Swain, I also learned about how to be a great math teacher. I am currently in my final semester of college, preparing to become a middle or high school math teacher. As I am reflecting on the types of teachers I've had throughout my education career and the type of teacher I want to be, Dr. Swain comes to mind as someone who has continually demonstrated the qualities and characteristics I want to have as a teacher. ... He cares deeply for his students, both in and out of the classroom, he makes himself available to give help as it is needed, and he is excited about what he teaches. When I am a teacher, I hope to be like Dr. Swain."

*Christopher Swanson
2018 – 2019 Teaching Award Committee Chair*

Nominate a Colleague for Section Distinguished Teaching Award

There are many outstanding mathematics educators in the Ohio Section. If you know of such an excellent educator, please consider nominating him or her for the Ohio Section Award for Distinguished College or University Teaching of Mathematics.

To make a nomination, complete the one-page nomination form, write a description of why you have chosen to

nominate this individual, and solicit recommendations from colleagues and current or former students. Nomination forms and detailed instructions are available from the Ohio MAA Website at <http://sections.maa.org/ohio/Award/>. Nominees must be members of the MAA and the Ohio Section, and they must have more than seven years of teaching experience in the mathematical sciences at the college/university level.

(Continued on page 6)

Contributed Papers Requested for Fall Meeting at Shawnee State

Fifteen-minute presentations on any topic of general interest in mathematics or related areas are encouraged for the Contributed Paper Sessions on Friday afternoon and Saturday morning at the Fall Ohio Section meeting. Reports on projects, research announcements, or anything you believe would be of interest to those in attendance are welcome. Contributors should send a title and brief abstract by Friday **October 11, 2019**.

Online submission with your meeting registration (at <http://sections.maa.org/ohio/>) is strongly preferred, but if necessary, you may submit your title and abstract to the chair of the Program Committee. Send it to Moez Ben-Azzouz, either at moez.ben-azzouz@sinclair.edu, or by U.S. mail at: Moez Ben-Azzouz
Sinclair Community College, Department of Mathematics
444 West Third Street, Dayton, Ohio 45402-1460

Abstracts should be between 25 and 75 words in length and should employ proper English grammar and spelling. Please use only plain text in your title and abstract because the abstract submittal system cannot process TeX or other graphics code.

Each presentation room will have a PC, a computer projector, and laptop connections. Presenters can either plug their laptops into the overhead projection system or plug a flash drive into the resident computer. If you wish to project from an Apple device then you must bring your own adapter. Internet access will be provided. Specific questions about technology availability should be addressed to John Whitaker at jwhitaker@shawnee.edu. You may submit abstracts online at the Section web page: <http://sections.maa.org/ohio>.

Registration Information for the Upcoming Fall Section Meeting

We welcome **Zhijun Yin**, University of Akron, Wayne College to the registration duties. Online registration is preferred. Please visit the Section web site at <http://www.maa.org/Ohio> for one-stop registration, banquet reservation, and abstract submission. The deadline for meeting pre-registration and banquet reservations is **October 18**. Abstracts for contributed papers must be submitted by **October 11**.

On-site meeting registration is always available, but last-minute banquet tickets cannot be guaranteed. Early registration is appreciated by those arranging the meeting. Registration will begin Friday at 12:00 pm in the Library Rotunda and will continue Saturday morning at 8:00 am.

Meeting participants who are unable to register online at <http://www.maa.org/Ohio> may register by mail by sending the following information: name, affiliation, address, phone, e-mail address (if any), type of position, and banquet buffet reservation. Send with check, payable to Ohio Section MAA, for applicable fees [registration fee (\$45 ordinary registration, \$20 retired or part-time, no fee for students or first-time attendees), banquet buffet fee (\$27) to: Ohio Section MAA Fall Meeting, c/o John Whitaker, Department of Mathematical Sciences, Shawnee State University, 940 Second Street, Portsmouth, OH 45662.

Registration by mail will be pending receipt of registration fees.

Award Nomination Information

(Continued from page 5)

The award will be presented at the 2020 Spring Meeting of the Ohio Section and appropriate publicity will be generated at the winner's home institution. The winner will be considered for the Ohio Section's nominee for the MAA's 2021 Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics. Past Ohio Section winners who have gone on to receive the Haimo Award are Aparna Higgins (University of Dayton, 2005) and V. Frederick Rieckey (Bowling Green State University, 1993).

Nominations should be sent to Barbara D'Ambrosia, Secretary of the Ohio Section of the MAA, via e-mail to bdambrosia@jcu.edu (preferred) or via postal mail to Barbara D'Ambrosia
Department of Mathematics and Computer Science
John Carroll University
1 John Carroll Blvd.
University Heights, OH 44118.

Questions or comments should be directed to David Stuckey, Chair of the Teaching Award Committee, at dstuckey@defiance.edu or 419-783-2464. The nomination deadline is January 1, 2020.

Ohio NExT Open to Those in First Five Years of Ohio Teaching

Ohio MAA Section NExT (New Experiences in Teaching) is a program for new faculty members. Its goal is to help newer faculty to network with colleagues, to share ideas and experiences that promote professional growth, and to encourage faculty to become involved in the Ohio MAA Section.

Preceding the Ohio Section Fall Meeting on the morning of Friday, October 25th, members of Ohio NExT will gather for lunch at 10:30 a.m. in the University Center 214 on the Shawnee State University Campus. This is a great opportunity to meet old friends and make new ones. After the lunch, the NExTers will spend an hour or so discussing a topic related to the profession.

Then, on Saturday, October 26th, following the Ohio Section Fall meeting, the Ohio NExT program will continue in the University Center 214 on the campus of Shawnee State University. The program will begin with lunch followed by the CONSACT workshop from Daniel Otero (Xavier University) and Janet Heine Barnett (Colorado State University – Pueblo) titled **“The Powerfully Scintillating Pedagogy of Primary Source Projects: Reading the masters to stimulate student learning and transform your teaching”**. After the CONSACT work-

shop, two contributed talks from Ohio NExTers will also be part of the program. Please consider giving a 15-minute contributed talk by emailing the title and abstract to Michael Schroeder (schroederm@marshall.edu).

The Ohio NExT program is free to Ohio NExT fellows. Ohio NExT is open to anyone in the Ohio Section who is in his/her first five years of teaching in Ohio. If this applies to you, please consider joining us this fall or next spring. For membership information and details contact Chandra Dinavahi (dinavahi@findlay.edu).

Ohio NExT is coordinated by committee members Chandra Dinavahi of the University of Findlay (dinavahi@findlay.edu), Michael Schroeder from Marshall University (schroederm@marshall.edu) and Elizabeth Haynes-Wiget from Wilmington College (elizabeth_haynes-wiget@wilmington.edu).



Fall Workshop **“The Powerfully Scintillating Pedagogy of Primary Source Projects: Reading the Masters to Stimulate Student Learning and Transform Your Teaching”**

The Fall Workshop, held immediately after the Fall meeting, will be conducted by **Danny Otero**, Xavier University, and **Janet Heine Barnett**, Colorado State University – Pueblo. It will be held in University Center 214.

Mathematics faculty and educational researchers are increasingly recognizing the value of the history of mathematics as a support to student learning. But how can mathematics instructors – especially those of us who are not historians of mathematics ourselves – tap into this potential? And how do we avoid the risk of placing too much emphasis on learning the history of mathematics per se, as opposed to using that history to support the learning of mathematics? This workshop explores the use of "Primary Source Projects" (PSPs), which offer an exciting and inspirational solution to these difficulties.

Workshop participants will experience the pedagogy of PSPs by working together on sample projects selected from a collection that has been developed and classroom-tested with funding from the NSF for topics in the undergraduate mathematics courses, ranging from pre-calculus and elementary statistics, to calculus and linear algebra, to abstract algebra and analysis. We will also discuss issues related to classroom implementation, and consider the benefits that this approach offers to both students and teachers alike.

You can sign up for this workshop on the Fall Meeting registration webpage. The total cost of the workshop is \$25, which will include a boxed lunch. This workshop is free for participants in Project NExT.

The ENIAC's 1949 Determination of Pi

Over the long Labor Day weekend in 1949, a team lead by George Reitwiesner at the US Army's Ballistic Research Laboratory in Aberdeen, Maryland, used the ENIAC to compute the decimal expansion of π out to 2,035 places, more than doubling the previous record of 808 digits. In addition, during the previous Independence Day holiday weekend, the ENIAC was used to compute e to

2,010 digits. The results of both calculations appeared in *Mathematical Tables and Other Aides to Computation* in 1950. This event is noteworthy for several reasons. This was the first use of an electronic computer to determine the value of π , a millennia-old problem. The ENIAC, a computer designed to compute ballistic tables, was not designed to perform the sort of high-precision calculation

required for the determination of e and π . It could only store 200 decimal digits, whereas the determination of e and π required manipulating numbers more than 2,000 digits long. Thus, why were scarce computational resources allocated to this problem? How was it done? And finally, what was learned from the exercise?



Brian J. Shelburne is a Professor of Mathematics and Computer Science at Wittenberg University in Springfield Ohio. He received his bachelor's degree in mathematics from Davidson College (1972), his M.A. (1974) and PhD (1978) in mathematics from Duke University and his M.S. in computer science (1985) from UNC Chapel Hill. He is a member of the Mathematical Association of America (MAA) the As-

sociation of Computing Machinery (ACM) and the IEEE Computer Society. His research interests lie in the intersection of mathematics and computer science and being somewhat stuck in the past, includes the history of computers and computing. He can be contacted at the Department of Mathematics and Computer Science, Wittenberg University, Springfield Ohio 45501 or at bshelburne@wittenberg.edu.

Generating Functions as Tinkertoys

Tinkertoys are a construction toy set for children that was created in 1914 and originally sold by the Toy Tinker Company. The toy is still marketed today with the rights now owned by Hasbro. Twenty-one years ago, the toy was inducted into the Toy Hall of Fame. The Tinker Toy set consists of a few simple pieces: sticks of various lengths, and spools with holes drilled in them to connect the sticks in more complex arrangements. Ferris Wheels were among the original creations used to demonstrate the toy, but per Wikipedia, the toy has been used to build a tic-tac-toe playing computer and many other complex objects.

With their book *Analytic Combinatorics*, Philippe Flajolet and Robert Sedgewick synthesized and distilled

the work of many earlier mathematicians into an approach they call the symbolic method for analytic combinatorics. Combinatorial structures are typically defined by simple formal rules that are key to learning their properties. These simple rules lead to a symbolic transfer theorem from the combinatorial structure to the generating function for that structure. The form of the generating function leads to an analytic transfer theorem from the generating function to its asymptotic behavior. Just as we can build complex objects with Tinkertoys, so can we do the same with elementary combinatorial structures and elementary generating functions. In this talk we will consider some examples of this approach related to random walks.



Barbara Margolius is Professor of Mathematics at Cleveland State University. She wandered about the academic disciplines earning a bachelor's degree in American Studies (Syracuse University), masters degrees in public policy (University of Michigan) and Operations Research (Case Western Reserve University) before finding a home in applied mathematics and earning a PhD at Case. Margolius is the recipient of Cleveland State's Distinguished Faculty Award for Service and the Jennie

(Continued on page 9)

Cool Results Involving Fibonacci Numbers and Compositions

Compositions provide a wonderful backdrop for a number of well-known families of numbers, especially the Fibonacci numbers. In this talk, we will gently introduce the idea of a composition of an integer (which is just an ordered sum of integers), and then discuss how various families of compositions give rise to the Fibonacci numbers, Jacobsthal numbers, and a host of generalizations. The talk will be completely self-contained and understandable by all, especially undergraduate students interested in mathematics. Conjectures and opportunities for possible undergraduate research will be discussed at the end of the talk.

James Sellers received his Ph.D. from Penn State University in 1992. After receiving his PhD, he taught at Cedarville University in Ohio for nine years before returning to his alma mater in 2001 to serve as a faculty member and the director of the undergraduate program in mathematics. In 2008, James served as a Visiting Fellow of the Isaac Newton Institute in Cambridge, and in 2012 he was privileged to be a Fulbright scholar, teaching and completing research at the Johannes Kepler University and the Research Institute for Symbolic Computation in Linz, Austria. Cur-



rently, James has over 100 papers listed in Mathematical Reviews, and he has won numerous awards from his department at Penn State and his section of the Mathematical Association of America for both his teaching and his service to the mathematical community. In February 2018, James turned his attention to a new and very exciting opportunity – serving as the Secretary of the MAA! And in August 2019, he moved to the University of Minnesota - Duluth to serve as professor and head of the Department of Mathematics and Statistics there.

Barbara Margolius

(Continued from page 8)

S. Hwang Award for Faculty Excellence. She served as founding director of CSU's Honors Program (which is now a College) and as a faculty fellow in the University President's Office. Margolius currently serves as director of CSU's Choose Ohio First Program, a state funded cohort program for STEM majors with more than 200 students participating. Margolius is active in a variety of mathematics professional societies and is presently co-chair of the program committee for MAM 11 (the 11th International Conference in Matrix Analytic Methods) to be held in Seoul South Korea in 2021 (join us!). She has written numerous articles on queueing theory and combinatorics and under an NSF grant, written many online apps for mathematics education in the WeBWork homework platform.

Revisiting What Euler and the Bernoullis Knew About Convergent Infinite Series

All too often in first-year calculus classes, conversations about infinite series stop with discussions about convergence or divergence. Such interactions are, unfortunately, not often illuminating or intriguing. Interestingly enough, Jacob and Johann Bernoulli and Leonhard Euler (and their contemporaries in the early 18th century) knew quite a bit about how to find the *exact* values of numerous families of convergent infinite series. In this talk, I will show two sets of *exact* results in this vein. The talk will be accessible to anyone interested in mathematics.

Results of 2019 Ohio Section Leo Schneider Student Team Competition

The sixteenth annual Leo Schneider Student Team Competition was held at Akron University on Friday, April 5, 2019. Nineteen students participated, forming seven teams and representing five institutions: Ashland University, Case Western Reserve University, Cleveland State University, Marietta College, and Marshall University.

First Place (\$150): Case Western Reserve University --- Raul Hernandez, Ben Young, and Jennifer Lin.

Second Place (\$120): Marietta College --- Xingyu Chen and Carter Lang.

Third Place (\$90): Case Western Reserve University --- Kienan Trace Ahner-McHaffie and Margaret Aguon.

Fall Meeting Program

Events will take place in the Clark Memorial Library, Administration Building, Kricker Hall, and Morris University Center. The locations of these buildings can be found on the campus map on page 12.

Friday, October 25		
12:00-4:00	Registration	Library Rotunda
12:00-1:00	Committee Meetings:	
	CONCUR (Curriculum)	Morris Univ. Center 215
	CONSACT (Section Activities)	Morris Univ. Center 220
	CONTEAL (Teacher Education & Licensure)	Morris Univ. Center 230
1:00-4:00	Vendor & Book Exhibits	Library Rotunda
1:15-1:30	Welcome and Announcements	Library 204 (Flohr)
1:30-2:30	CONCUR Sponsored Panel Session: "My Experience Teaching a Co-Requisite Course" Emily Dolsak, Shannon Miller-Mace, Najat Baji	Library 204 (Flohr)
2:30-2:50	Break	Library Rotunda
2:50-3:50	Invited Address: "The ENIAC's 1949 determination of Pi" Brian Shelburne	Library 204 (Flohr)
4:00-5:40	Executive Committee Meeting	Admin. 171 Richards Conf. Rm
5:00-6:15	Contributed Paper Sessions	Kricker 157, 250, 272
6:15-6:50	Social Time	Morris Univ. Center 230
6:50-8:00	Banquet	Morris Univ. Center 230
8:00-9:00	Invited Address by MAA Section Visitor: "Cool Results Involving Fibonacci Numbers and Compositions" James Sellers	Morris Univ. Center 230

Saturday, October 26		
8:00-10:00	Registration	Library Rotunda
8:00-10:00	Book Vendors and Exhibits	Library Rotunda
8:00-9:25	Coffee and Pastries	Library Rotunda
8:50-9:25	Committee on Local Arrangements	Library 205
8:50-9:25	Executive Committee Meeting (if needed)	Library 207
9:25-9:35	Welcome and Announcements	Library 204 (Flohr)
9:35-10:35	Invited Address by MAA Section Visitor: "Revisiting What Euler and the Bernoullis Knew About Convergent Infinite Series" James Sellers	Library 204 (Flohr)
10:35-10:50	Break	Library Rotunda
10:50-11:45	Contributed Paper Session	Kricker 157, 250, 272
11:45-12:00	Break	Library Rotunda
12:00-1:00	Invited Address: "Generating Functions as Tinkertoys" Barbara Margolius	Library 204 (Flohr)
1:00-1:10	Closing Remarks	Library 204 (Flohr)

Event locations are subject to change. Check the official program you receive when you register for the meeting in the Library Rotunda.

Campus Notes

At **Ashland University**, **Christopher Swanson** was appointed chair of the Department of Mathematics and Computer Science. **Gordon Swain** returns to a full teaching load after being on senior study leave during the Spring 2019 semester.

Baldwin Wallace reports that Dr. **Aaron Montgomery** was awarded tenure and promoted to Associate Professor; Dr. **Brent Strunk** was promoted to the rank of (Full) Professor; Dr. **David Calvis** was awarded Promotion-in-Rank, a new type of promotion at BWU available to Full Professors.

The University is moving ahead with construction of a new facility that will house Mathematics, Computer Science, our new Engineering Program, and Physics.

Many actions taken at **Sinclair Community College**. **Kay Cornelius** and **Susan Harris** retired. **Juanita Darden-Jones** was promoted to Associate Professor and **Kinga Oliver** was promoted to Professor. **Wendy Cheng**, **Valerie Cope** and **Olga Stephens** received tenure. **Jacob Daniel** and **Amber Nix** joined the department as Annually Contracted Faculty.

News From Across the Section

Marshall University has had good student success. **Chloe Marcum** (rising Junior mathematics major) was awarded a Summer Undergraduate Research Experience (SURE) Fellowship grant to pursue original undergraduate research this summer under the direction of Dr. **Elizabeth Niese**. Chloe completed her project "Extended Schur Functions" on August 2 with her final presentation in the College of Science on the Marshall campus. **Mike Waldeck** and **Faith Hensley** presented the results of their summer undergraduate research projects at MathFest. Faith Hensley and her research partner **Ashley Peper** won an Outstanding Student Paper Session Presentation Award.

Marshall's Calculus I (MTH 229) has been accepted for transfer credit within West Virginia.

The **University of Dayton** is welcoming two new faculty members. **George Todd** is joining us as an assistant professor; his specialty is number theory. **Lisa Wellinghoff** is a lecturer in statistics. **Shirley Ober** and **Paul Saintignon** retired in May of 2019. Details for Undergraduate Mathematics Day, the biennial undergraduate conference on Saturday, November 2, 2019 are available at <http://go.udayton.edu/UndergradMathDay>.

Lodging Options and Information for the Fall Meeting

Holiday Inn

711 2nd Street,
Portsmouth, Ohio, 45662
(740-354-7711)

The Holiday Inn is .1 miles from campus. Ask for the MAA Math Conference rate of \$116 plus tax. A block of 30 king bed rooms and 30 double bed rooms will be on reserve until September 26th after which folks can still call and if rooms are still available get the conference rate.

Quality Inn

5100 Old Scioto Trail
Portsmouth, Ohio, 45662
(740-353-3232)

The Quality Inn is about 6.3 miles from campus and about a 14 minute drive from campus. Ask for the MAA Math Conference rate of \$68 plus tax. Reserved are a block of 20 double bed rooms and 10 king bed rooms until October 18th after which folks can still call and get the conference rate if rooms are still available.

Comfort Inn

8226 Ohio River Road
Wheelersburg, OH 45694
(740-574-1046)

The Comfort Inn is about 9.6 miles from campus and about a 20 minute drive from campus. Ask for the MAA Math Conference rate of \$107.10 plus tax. A block of 15 double bed rooms will be on reserve until October 17th. After that date people can inquire if rooms are still available at the conference rate.

Shawnee Lodge

4404B State Route 125
West Portsmouth, OH 45663
(740-858-6621)

Shawnee Lodge is about 14 miles from campus and about a 22 minute drive from campus. Ask for the MAAC rate of \$119 plus tax for double bed rooms on Thursday, \$129 plus tax for double bed rooms on Friday, \$129 plus tax for king bed rooms on Thursday, and \$139 plus tax for king bed rooms on Friday. No blocked rooms reservations allowed, but rooms should be available.



Directions to Portsmouth and Shawnee State

From Akron, OH: Take 1-77 South to I-70 West. Take I-70 West to I-270 South (Columbus). Take I-270 South to US-23 South. Follow US-23 South to Portsmouth, OH. Turn left on Fourth Street. Turn Right from Fourth Street to Waller Street. Follow Waller Street to Shawnee State University parking.

From Cincinnati, OH: Take OH-32 East to US-23 South to Portsmouth, OH. Turn left on Fourth Street. Turn Right from Fourth Street to Waller Street. Follow Waller Street to Shawnee State University parking.

From Cleveland, OH: Take I-71 South. In Columbus, take I-270 South to US-23 South. Follow US-23 South to Portsmouth, OH. Turn left on Fourth Street. Turn Right from Fourth Street to Waller Street. Follow Waller Street to Shawnee State University parking.

From Columbus, OH: Take US-23 South to Portsmouth, OH. Turn left on Fourth Street. Turn Right from Fourth Street to Waller Street. Follow Waller Street to Shawnee State University parking.

From Dayton, OH: Take US-35 East to US-23 South to Portsmouth, OH. Turn left on Fourth Street. Turn Right from Fourth Street to Waller Street. Follow Waller Street to Shawnee State University parking.

From Toledo, OH: Take I-75 South to OH-15 East (Findlay) to US-23 South to Portsmouth, OH. Turn left on Fourth Street. Turn Right from Fourth Street to Waller Street. Follow Waller Street to Shawnee State University parking.

From Huntington, WV: Take I-64 West to KY-76/ Industrial Parkway. Turn left onto US-23 North for about 21 miles in Kentucky. Turn right to stay on US-23 and cross over Ohio River bridge into Ohio. Follow US-23 by bearing right after bridge. Take a right onto Fourth Street. Turn right onto Waller Street and follow Waller Street to SSU parking lots.

A Great Thank You to everyone who has helped with this and previous newsletters. You have been diligent in your efforts and invaluable with your assistance. This is my final issue as I will be taking on other duties within the section. A warm welcome to Brian Shelburne, who will be doing an excellent job as editor.
David Stuckey, Editor

2019-2020 Ohio Section Officers and Committees

ELECTED OFFICERS

President

Katie Cerrone-Arnold, University of Akron
kc24@uakron.edu (2020)

President-Elect

David Stuckey, Defiance College
dstuckey@defiance.edu (2020)

Section Representative

Daniel Otero, Xavier University
otero@xavier.edu (2021)

Secretary

Barbara D'Ambrosia, John Carroll Univ.
bdambrosia@jcu.edu (2021)

Treasurer

Tom Wakefield, Youngstown State Univ
tpwakefield@ysu.edu (2022)

OTHER KEY PERSONNEL

Department Liaisons Coordinator

Christopher O'Connor, Shawnee St Univ
coconnor@shawnee.edu (2020)

Webmaster

Darren Wick, Ashland University
dwick@ashland.edu (2020)
Michael Schroeder, Marshall University
schroederm@marshall.edu (2022)

On-line Registration

Zhijun Yin, University of Akron
zyin@uakron.edu (2022)

Newsletter Editor

David Stuckey, Defiance College
dstuckey@defiance.edu (2020)
Brian Shelburne, Wittenberg University
bshelburne@wittenberg.edu (2022)

OhioMATYC Liaison

Jim Anderson, University of Toledo
Jim.anderson@utoledo.edu (2020)

OCTM Liaison

Liz Haynes-Wiget, Wilmington College
elizabeth_haynes-wiget@wilmington.edu
(2021)

Archivist

Daniel Otero, Xavier University
otero@xavier.edu (2020)

COMMITTEES

* Denotes committee chair. Elected Officers and Committee Chairs are voting members of the Executive Committee. Terms expire at the end of the Spring meetings of the year listed.

Ohio Project NExT Co-Coordinators

*Chandra Dinavahi, University of Findlay
dinavahi@findlay.edu (2021)
Michael Schroeder, Marshall University
schroederm@marshall.edu (2022)
Liz Haynes-Wiget, Wilmington College
elizabeth_haynes-wiget@wilmington.edu
(2022)

CONTEAL

*Aaron Blodgett, University of Findlay (2020)
Laurie Dunlap, University of Akron (2020)
Najat Baji, Sinclair Community College (2021)
Bradford Findell, Ohio State University (2021)
Ian Hogan, Central State University (2021)
James Fitzsimmons, Wilmington Coll (2022)

CONSTUM

*Matt McCullen, Otterbein University (2020)
Alyssa Hoofnagle, Wittenberg Univ (2020)
Jaki Chowdhury, Ohio Northern Univ (2021)
Matt Davis, Muskingum University (2022)
M B Rao, University of Cincinnati (2022)
Chris Swanson, Ashland University (2022)

CONSACT

*Jim Anderson, University of Toledo (2021)
Lokendra Paudel, University of Akron (2020)
Zhijun Yin, University of Akron (2020)
Ruma Dutta, Ohio State University (2021)
Won Chul Song, University of Findlay (2021)
Aurel Stan, Ohio State University (2019)

CONCUR

*Chandra Dinavahi, Univ of Findlay (2022)
Kelly Bubb, Ohio University (2020)
Anup Lamichhane, Ohio Northern Univ (2021)
Giorgi Shonia, Ohio Univ Lancaster (2021)
Diana Eames, University of Akron (2022)
Glen Lobo, Sinclair Comm College (2022)

Program Committee

*Moez Ben-Azzouz, Sinclair Comm C (2020)
Matt Davis, Muskingum University (2021)
Najat Baji, Sinclair Community College (2022)

OTHER COMMITTEES

Nominating Committee

*Barbara Margolius, Cleveland St U (2020)
Chris Swanson, Ashland University (2021)
Katie Cerrone-Arnold, U of Akron (President)
Barbara D'Ambrosia, John Carroll Univ.
(Secretary, nonvoting)

Teaching Award Committee

* David Stuckey, Defiance C (Pres-Elect)
Adam Parker, Wittenberg University (2020)
Gordon Swain, Ashland University (2021)
Barbara D'Ambrosia, John Carroll Univ.
(Secretary, nonvoting)

LOCAL ARRANGEMENTS FOR MEETINGS

Fall 2019: Shawnee State University
John Whitaker, jwhitaker@shawnee.edu

Spring 2020: Bowling Green State University
Gordon Wade, gwade@bgsu.edu

Fall 2020: Ohio University-Lancaster
Giorgi Shonia, shonia@ohio.edu

OHIO FOCUS

The newsletter of the Ohio Section of the Mathematical Association of America, which first appeared in 1973, is published twice yearly in time to reach members before the fall and spring meetings. Newsletters are published online at www.maa.org/Ohio. Notification emails are sent using addresses through the MAA.

Editor: Brian Shelburne
bshelburne@wittenberg.edu
Department of Mathematics and
Computer Science
Wittenberg University
Springfield, OH 45501

The deadline for the next newsletter is **February 1, 2020**. Email copy is preferred.

Calendar of Events and Upcoming Meetings

Ohio Section Meetings

Fall 2019 Section Meeting, October 25-26
Shawnee State University, Portsmouth, OH

Spring 2020 Annual Meeting, April 3-4
Bowling Green State University, Bowling Green, OH

Fall 2020 Section Meeting, TBD
Ohio University - Lancaster, Lancaster, OH

National MAA-AMS

MAA-AMS Joint Mathematics Meetings,
January 15 - 18, 2020, Denver, CO

MathFest, July 29 - August 1, 2020, Philadelphia, PA

MAA-AMS Joint Mathematics Meetings,
January 6 - 9, 2021, Washington, D.C.

MathFest, August 4 - 7, 2021, Sacramento, CA

Other Meetings of Interest

OCTM Annual Conference, October 23 - 25, 2019
Sandusky, OH <http://www.ohioctm.org/https-sites-google-com-a-ohioctm-org-octm-conferences-69th-annual-conference-sandusky-2019>

AMATYC Annual Conference, November 14 - 17, 2019
Milwaukee, WI
<https://amatyc.site-ym.com/page/2019ConfHome?>

International Conference on Technology in Collegiate Mathematics (ICTCM), March 12 - 15, 2020, Orlando, FL
<https://www.pearson.com/us/about/news-events/events/2020/03/ictcm-2020-conference.html>

T³ International Conference, March 13 - 15, 2020
Dallas, TX <https://education.ti.com/en/professional-development/t3-international-conferences>

NCTM Centennial Meeting, April 1 - 4, 2020, Chicago, IL
<https://www.nctm.org/100/>

Joint Statistical Meetings, August 1 - 6, 2020,
Philadelphia, PA
<https://ww2.amstat.org/meetings/jsm/2020/index.cfm>

Miami University Announces 47th Annual Conference

The topic for the 2019 Conference is “Differential Equations and Dynamical Systems and Their Applications”. Dates are September 20 - 21, 2019. Featured speakers are **Nancy Rodriguez**—University of Colorado - Boulder, **Bjorn Sandstede**— Brown University, **Arnd Scheel** – University of Minnesota, and **Todd Young** – Ohio University. The Ohio Delta Chapter of Pi Mu Epsilon will hold its student conference at the same time. More details are available at <http://miamioh.edu/cas/academics/departments/mathematics/about/events/annual-mathematics-conference/index.html>

University of Dayton Hosts Undergraduate Mathematics Day

On Saturday, November 2, 2019, the University of Dayton will host Undergraduate Mathematics Day, an undergraduate mathematics conference that extols all aspects of mathematics. Undergraduates are invited to contribute talks celebrating mathematics in all forms – research, learning, teaching and history. Talks presented by high school students, graduate students and faculty are also welcome. The 20th annual Kenneth C. Schraut Memorial Lecture will be delivered by Dr. **Tommy Ratliff** of Wheaton College. Dr. **Rachael Kenney** of Purdue University will deliver a second plenary lecture. Details about the conference are available at <http://go.udayton.edu/UndergradMathDay>

Adjacent MAA Section Meetings

Indiana Section MAA Section Meeting, October 26, 2019, Wabash College, Crawfordsville, IN
<http://sections.maa.org/indiana/>

Allegheny Mountain Section MAA Meeting, April 3 - 4, 2020, Grove City College, Grove City, PA
<http://sections.maa.org/allegheny/>

Michigan Section MAA Meeting, April 3 - 4, 2019, Grand Valley State University, Allendale, MI
<http://sections.maa.org/michigan/>

Kentucky Section MAA Section Meeting, March 27-28, Asbury University, Wilmore, KY
<http://sections.maa.org/kentucky/>