Capital University Set to Host MAA Fall Meeting October 23 - 24

The Fall Meeting of the Ohio Section of the MAA will take place October 23 - 24, 2015 at Capital University in the Bexley neighborhood of Columbus, Ohio. **Dana Mackenzie**, Chauvenet Prize recipient, will be a featured speaker on both days. Other invited speakers are **Chris Swanson**, Ashland University, and **Khristo Boyadzhiev**, Ohio Northern University. Additionally, **Carol Schumacher**, Kenyon College, will discuss how the 2015 CUPM Curriculum Guide can be used for program improvement. Registration and committee meetings begin on Friday at noon. There will also be contributed paper sessions on both Friday afternoon and Saturday morning for meeting participants. Graduate and undergraduate students in mathematics, mathematics education, or related fields are encouraged to attend.

Nominate a Colleague for Section Distinguished Teaching Award

There are many outstanding mathematics educators in the Ohio Section, and one way to recognize them for their excellence is to nominate them for the Ohio Section Award for Distinguished College or University Teaching of Mathematics. If you know of such an excellent educator, please consider nominating him or her for this honor.

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.

The award will be presented at the 2016 Spring Meeting of the Ohio Section, and appropriate publicity will be generated at the winner's home institution. The winner will become the Ohio Section's nominee for the MAA's 2016 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 Rickey (Bowling Green State University, 1993).
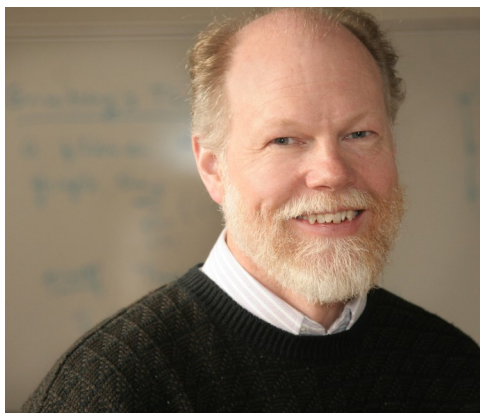
Nominations should be sent to Pam Warton, Secretary of the Ohio Section of the MAA, via e-mail to warton@findlay.edu (preferred) or via postal mail to Pam Warton, Department of Mathematics, University of Findlay, 1000 N. Main St., Findlay, OH 45840. If you have questions or comments, please contact John Prather, Chair of the Teaching Award Committee, at prather@ohio.edu or 740-699-2333.
The nomination deadline is January 1, 2016.

Section Governor's Report Encourages Departmental Membership

I begin my tenure as governor of the Ohio Section as the MAA celebrates its 100th anniversary. MathFest, in Washington, D. C., was a great success with a total attendance of over 2475, breaking the old record of about 1650.

As a new governor, I attended an orientation session on Monday prior to the Tuesday Board of Governors meeting. Our orientation was devoted to getting us up to speed on the topics we would tackle during our terms as governor. These included budget and governance issues.

Over each of the past 10 years, the MAA has carried an annual budget deficit. This raises concerns, of course. On a positive note the deficits in recent years have a downward trend with projected deficits of under $100,000 for 2015 and under $50,000 for 2016. And nearly $5 million dollars have been raised toward a goal of $7 million for the Second Century Campaign. If you have not yet done so, please consider taking part in this MAA fundraising effort.

A report from the Governance Task Force was presented to the Board of Governors. Three models for Board restructuring were presented, each of which included a much smaller (from 8 to 15 members, while the current board contains 52 voting members) governing board for the MAA. The more popular alternatives contained a much larger associated advisory body. Such sweeping changes to the structure of the board would require substantial modifications of the MAA by-laws.

Note that our new Ohio Section By-Laws which were approved by a vote of the section this spring were approved unanimously by the Board of Governors.

A member of the Ohio Section will be the next editor of The American Mathematical Monthly. Congratulations to Susan Colley, the Andrew & Pauline Delaney Professor of Mathematics at Oberlin College, who was approved by the Board of Governors as editor-elect for one year, beginning January 1, 2016, followed by five years as editor of the Monthly. Susan will be the first woman to serve as Monthly editor.

The MAA hopes that your department will seriously consider applying for a departmental membership. The cost is between $500 and $1500 per year, depending upon enrollment and type of institution. An MAA Departmental Membership now includes Student Memberships for an unlimited number of nominated full-time enrolled mathematics students and an MAA Membership for one faculty member (who will act as the Departmental Membership Administrator). Check out the MAA website for all the other benefits, such as discounts on books and hosted WeBWorK courses.

There are many benefits to being an MAA member. One that I learned of is that each member has access to e-books in the "member library." The CUPM Guide, the Centennial Volume – A Century of Advancing Mathematics, and a Classroom Resource Materials Series book on Fourier Series are all available there for free download. Login at www.maa.org to access the library and explore other member benefits.

Of course the most valuable benefit of being an MAA member is being part of the MAA community! If you would like to serve on a national MAA committee, let me know and I'll pass your name along. Hope to see you at an MAA meeting soon.

Bill Higgins
Wittenberg University
Ohio Section Governor

Display of section banners at 2015 MathFest, with Ohio first in line.

President's Message Ties Origins to Current Issues

Happy Centennial, everyone! Looking pretty good for 100, don't you think? Finally, after years of preparation, the celebration of the MAA Centennial — and our Ohio Section's Centennial as well — is finally upon us. As Archivist for the Ohio Section, a member of our Section's Centennial Committee, and this year as Section President, my attention has been focused all the more on the celebration of this anniversary. So gather 'round and let me tell you how in the very last days of the year 1915 the Mathematical Association of America and our Ohio Section were born…

It all took place here in the Midwest! In 1902 the great pioneer of American mathematics, University of Chicago's E.H. Moore, who had recently formed the germ of what was to become the Chicago Section of the AMS, boldly challenged the members of that Society in his retiring address as AMS President:

> Do you not feel with me that the American Mathematical Society, as the organic representative of the highest interests of mathematics in this country, … enlarging its membership by the introduction of a large body of the strongest teachers of mathematics in the secondary schools, should give continuous attention to the question of the improvement of education in mathematics, in institutions of all grades?

This question was famously pressed a few years later when, in 1914, H.E. Slaught, another University of Chicago professor, urged the formation of a committee "to consider the general relation of the Society to the promotion of teaching, especially in the collegiate field." Five men were appointed to this group: T.S. Fiske (Columbia), H.B. Fine (Princeton), W.F. Osgood (Harvard), and E.R. Hedrick (Missouri), along with Slaught. This committee's most significant action was to decide whether the AMS ought to pick up the publication of the *American Mathematical Monthly*. This issue had arisen when B.F. Finkel, professor at Drury College in Missouri and the *Monthly*'s first editor, turned to Slaught and Hedrick for help with carrying the journal forward when he ran into financial difficulties with his printing company in Missouri. In a momentous 3-2 vote, the committee decided *against* committing the resources of the AMS to the *Monthly*. (What might have happened if that vote had gone the other way, as it easily could have done?!)

This refusal to assist the *Monthly* helped to spur fresh interest in building something new that would more clearly promote collegiate mathematics. Soon thereafter, Slaught solicited interest among subscribers to the *Monthly* in a plan for a new organization that would support teachers of college-level mathematics. From the responses he received he assembled names of 450 individuals who were invited to attend an organizational session that followed a meeting of the AAAS at Ohio State University in late December 1915. There in Page Hall, in a three-hour session on the last day of the year, Hedrick presided over an assembly of over 100 participants at which the new Mathematical Association of America was formed, led by an elected Council of twelve members. Half of these council members represented midwestern schools, including Hedrick and Finkel from Missouri, W. D. Cairns, professor at Oberlin College here in Ohio, and J. N. van der Vries from the University of Kansas. In fact, before that meeting on December 31, 1915 ended, delegations from these three states had already applied for charters to become the first regional sections of the Association. Within a year, sections were also established in Iowa and Indiana.

Slaught's original fourfold vision for the MAA is as relevant in the 21st century as it was a hundred years ago, despite the tremendous political and technological changes that have taken place since then. As he first stated it, the Association's goals were:

> 1) To provide organized activity in the large field between the fields of secondary

Results of Student Team Competition Shared

The twelfth annual Leo Schneider Student Team Competition was held at Marshall University on Friday, March 27, 2015. Forty-nine students registered, forming nineteen teams and representing nine institutions: Ashland University, Baldwin Wallace University, Case Western Reserve University, Cleveland State University, University of Dayton, University of Findlay, Malone University, Marshall University, and Youngstown State University.

The following teams placed in the competition:
First Place ($150): Case Western Reserve University – Jonathan Dorsey, Andres Rosales, and Felix Wang

Second Place ($120): University of Dayton – Matt DeVilbiss, Tyler Masthay, and Adam Volk

Third Place ($90): Cleveland State University – Leon Bykov and Heather Weaver

A sudoku tournament and pizza party were held during the evening of that same day.

The thirteenth annual competition will take place April 8, 2016, at Ohio Northern University. For more information regarding the competition, check out the CONSTUM website: http://www.constum.ohiomaa.org/.

CONSTUM 2015-2016:
Ryan Rahrig (Ohio Northern University)
Melissa Dennison (Baldwin Wallace University)
Matt McMullen (Otterbein College)
Tom Wakefield (Youngstown State University)
Mohammad Zaki (Ohio Northern University)

Message from President Otero
(Continued from page 3)

school mathematics and the field of pure research.
(2) To form a medium of   communication and a forum for exchange of ideas between teachers and others interested in collegiate mathematics.
(3) To furnish a place for publication of scientific articles and papers adapted to this intermediate field.
(4) To publish historical articles, book reviews, notes and news, and indeed any matters of interest to the great body of men and women related to this field.

As we begin our second century, I am happy to report that the Ohio Section now has a refreshed and revitalized set of bylaws, which were voted upon last spring by Section members and approved by the MAA Board of Governors at MathFest in Washington, DC, this past August (now available for review at: sections.maa.org/ohio/). The Section's Centennial Committee, under the leadership of David Kullman, is updating our Section history (I must commend the editorial work that Tom Hern has provided for this project). They will display sample pages from the book at the Fall 2015 meeting at Capital University and plan to distribute printed copies of this history at our Spring 2016 meeting.

The Centennial celebration got underway in earnest in August at MathFest. It was a spectacular meeting, exceeding the standing record for participation at a MathFest by well over 50%! If it hasn't been your practice to attend MathFest in the past, I urge you to reconsider, especially since next year the MAA will return to its cradle in Columbus, OH, for MathFest 2016.

Here's another bit of exciting news that I learned at MathFest 2015: the MAA is doing something really exciting by restructuring its departmental membership benefits. Now, with a departmental membership comes the standard individual membership for one faculty member, but also – at no extra cost – student memberships for *every full-time mathematics student* you nominate, and there is *an unlimited number* of students from your school whom you may nominate! This entitles each of these students to electronic subscriptions to *all* the MAA periodicals. Isn't that wild? I hope this option will involve many new young people in participating in the MAA community. Please take advantage of it on their behalf if you can.

For many of us, the Ohio Section represents the human face of the larger MAA organization, which might otherwise be nothing but a clearinghouse for periodicals, books, and other written and online resources for college teachers and students of mathematics. With our two meetings per year, those of us who live in Ohio (and Cabell County, WV!) have ample opportunity to come together, make new acquaintances and renew longstanding friendships, and just meet with like-minded colleagues from a variety of colleges and universities other than our own to discuss and share ideas and strategies for strengthening the teaching and learning of mathematics at its higher levels. Let's hope that we can continue to offer this service to MAA members for yet another 100 years!
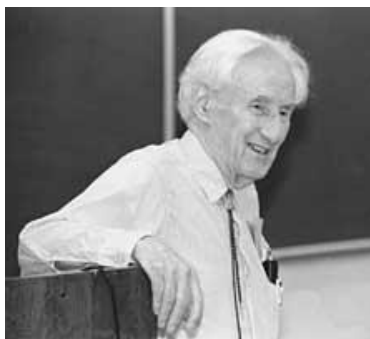
Danny Otero
Xavier University
Ohio Section President

More Ohio Section Characters
Centennial Note #12, by David Kullman

This sequel to Centennial Note #10 features some Ohio Section leaders who were active during the second half of the Section's history. We have not included any living MAA members.
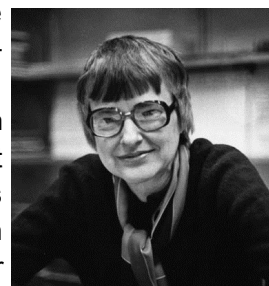
Charles Capel grew up in a working class family in Troy, New York, where the nuns at Catholic Central High School recognized his academic potential and encouraged him to tackle the college preparatory curriculum. Having won a Regents Scholarship, Charlie entered the New York State College for Teachers at Albany in 1940 where he planned to become a high school math teacher. World War II delayed his graduation until 1947, but the GI Bill enabled him to pursue a master's degree in mathematics at the University of Rochester, and he eventually earned a Ph.D. in topology at Tulane in 1953. Dr. Capel was hired by Miami University in 1960 and chaired the mathematics department there from 1961 to 1965. During his term as Ohio Section Chairman (1963-64), he led the Section in establishing its first standing committees (CONCUR and CONTTAC) and producing the first major revision of its By-laws since 1915.

Arnold Ross was born in Chicago in 1906, but spent most of his childhood in Odessa, Russia. He returned to America in 1922 and enrolled at the University of Chicago, where he earned a Ph.D. under L. E. Dickson in 1931. His teaching career included a stint at Cal Tech, and he served as a research mathematician in the US Navy during World War II. In 1946 Dr. Ross became Head of the mathematics department at the University of Notre Dame, where he started a summer program for talented high school students. He moved to Ohio State as department chair in 1953, and the Ross Summer Scholars Program followed him a year later. By the time he retired in 2000, similar mathematics programs for high school students had been established at several other universities in the US and abroad. Besides serving as Chairman of the Ohio Section (1968-69), his long list of honors includes a 1986 MAA Award for Distinguished Service.

Will Hahn was born in Columbia, South Carolina, in 1921. The son of a Lutheran pastor, he entered Lenoir Rhyne College at the age of 16, and graduated four years later as president of the student body, with a major in history and a minor in English. In June 1941 he entered Duke University as a graduate student in mathematics and had completed his master's thesis by Christmas of that year. The following spring he joined the US Navy where he served with distinction until 1946. He returned to Duke and defended his doctoral dissertation two years later. Dr. Hahn's academic career then took him to the University of Michigan, Wittenberg College, Winthrop College (SC) and Hampden-Sydney College (VA). He returned to Wittenberg as Professor of Mathematics in 1960 and remained there until his retirement in 1983. Dr. Hahn served as Chairman of the Ohio Section (1972-73) and Governor (1979-1982). In 1984 he was the Ohio Section's first recipient of an MAA Certificate for Meritorious Service. He founded the *Ohio Section Newsletter* and was a principal author of our 75-year history, *The Ohio Section: 1915-1990.*

Marion Wetzel grew up on a farm in Illinois and always had a love of agriculture. She earned her baccalaureate degree at Cornell College in Iowa and her master's and Ph.D. degrees at Northwestern University. Dr. Wetzel joined the faculty of Denison University in 1946, where her passion for math – especially continued fractions – guided her on a long career in the Department of Mathematics. She rose to the rank of full professor and became the first woman to serve as chair of the department. When she retired in 1986, she was Denison's longest-tenured faculty member. Dr. Wetzel chaired the Ohio Section Program Committee in 1954-55 and was the first female to serve as Chairman of the Section (1978-79). After her death in 2012, at the age of 92, a Marion D. Wetzel Scholarship was established at Denison in her memory.

Centennial Note
(Continued from page 5)

Douglas Faires was a native of Pennsylvania and graduated from Sharpsville High School in 1959. He earned his undergraduate degree at Youngstown State University in 1963 and his Ph.D. in mathematics at the University of South Carolina in 1969. He then returned to YSU as a faculty member and remained there until his retirement in 2006. He served as the Ohio Section Chairman (1981-82) and Governor (1997-2000). Professor Faires was a dedicated teacher who received the Ohio Section's Award for Distinguished College or University Teaching in 1996 as well as five Distinguished Faculty awards and an Honorary Doctor of Science degree from YSU. He served as the national president of Pi Mu Epsilon (1999-2002) and received its C. C. MacDuffee Award for lifetime service in 2005. He also served as a co-director of examinations for the American Mathematics Competitions and a judge for the CO-MAP International Contest in Mathematical Modeling. Dr. Faires was an author of numerous textbooks, ranging from *PreCalculus* through *Numerical Analysis*.
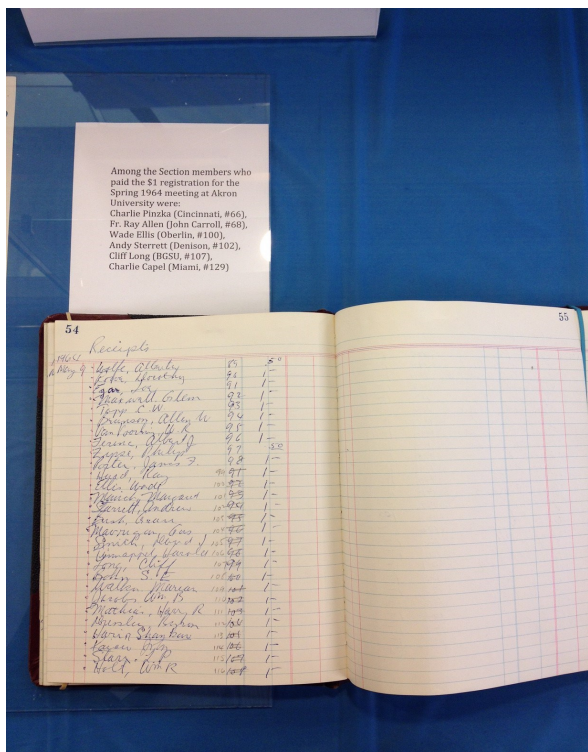
James Leitzel was born in Shenandoah, Pennsylvania in 1936. After earning Bachelor's and Master's degrees at Penn State and a doctorate at Indiana University, he joined The Ohio State University Mathematics Department in 1965. At Ohio State he served as vice-chair of the mathematics department, and he was instrumental in starting an M.A.T. degree program there. Professor Leitzel was a strong advocate for higher standards and better teaching of mathematics at all levels. After chairing the CONTTAC committee, he became the Ohio Section Chairman (1984-85) and went on to serve the national MAA in several capacities. From 1990 to 1992, he was a MAA visiting mathematician and director of special projects. During that time he chaired the MAA Committee on Mathematical Education of Teachers (COMET) and was deeply involved in writing, and editing the 1991 MAA report, *A Call for Change: Recommendations for the Mathematical Preparation of Teachers of Mathematics.* He was also the founding co-director of Project NExT, from its inception in 1994 until his death in 1998. The James R. C. Leitzel Lecture was established that year by the MAA Board of Governors.

Leo Schneider earned bachelor's and master's degrees at Xavier University and a Ph.D. at Case-Western University. He joined the faculty at John Carroll University as an instructor in 1963 and became a full professor in 1979. He also chaired the department from 1971 until 1979. He served the Ohio Section as Program Committee Chair (1995-1996), as President (1997-98), and as Governor (2000-2003). In 2004 he received the Section's Award for Distinguished College or University Teaching. Dr. Schneider had a special interest in students' co-curricular activities. From 1974 to 1988 he served as Ohio's regional coordinator for the American High School Mathematics Exam. He was appointed to the national American Mathematics Competitions Committee in 1980, and he chaired that committee from 1988 to 1994. He also served as the national secretary-treasurer of Pi Mu Epsilon. Dr. Schneider died suddenly in June 2010 while en route to Kansas City to participate in the annual grading of AP Calculus exams. Later that summer the C. C. MacDuffee Award for Distinguished service was presented to him posthumously at the annual meeting of Pi Mu Epsilon.

At a recent MAA Ohio Section meeting, this ledger book was displayed, indicating that **Charlie Capel** paid his $1 registration fee for a 1964 meeting, along with **Charlie Pinzka, Fr. Ray Allen, Wade Ellis,** and **Cliff Long,** among others.

Notes From Across the Section

At **Ashland University**, **Gordon Swain** has returned to teaching a full course load after serving as Faculty Senate President during the last academic year. After 3 years of teaching mathematics and statistics, **Maduka Rupasinghe** has departed to work for Discover Services in Chicago. After 5 years of teaching mathematics, **Justin Young** has departed to work for the National Security Agency in Maryland. After 19 years of teaching mathematics, **Vickie Van Dresar** has retired and is enjoying retirement in the Teton Valley.

The Department of Mathematics, Computer Science, and Physics at **Capital University** is pleased to announce the awarding of tenure and promotion to Associate Professor for Dr. **Leigh Johnson** and Dr. **Paula Federico**.

Dr. **Jenna Van Sickle**, Ph.D. in Mathematics Education from Columbia University will be joining the Department of Mathematics at **Cleveland State University** this Fall.

The Department of Mathematics and Computer Science of **Denison University** is happy to announce that Dr. **Sarah Wolff** will join the department in the Fall of 2015 as an assistant professor. Sarah received her doctorate in June from Dartmouth College and spent part of the summer in Montreal at the CRM-PIMS Summer School in Probability. Her research interests center around combinatorial representation theory and random walks on algebraic structures. She holds a bachelor's degree from Colorado College and is excited to be returning to a small liberal arts setting. Additionally, Denison is also happy to announce the promotion of Dr. **Lew Ludwig** to full professor and the publication of *Discovering Computer Science: Interdisciplinary Problems, Principles, and Python Programming* (Chapman and Hall/CRC textbooks in computing) by Professor **Jessen Havill**.

John Carroll University says farewell to visiting faculty **Joseph Consiglio** (Statistics), **Victor Lee** (Computer Science), and **Christopher Lin** (Mathematics). At the same time, we welcome two new tenure-track faculty members. **Wilmina (Billie) Marget** just completed her Ph.D. in Statistics from Iowa State University. Her research is in experimental design and statistics education. **Elena Manilich** earned her Ph.D. in Computer Science from Case Western Reserve University in 2010. She has roughly 15 years of experience in the area of Health Informatics, mostly with the Cleveland Clinic. Elena will be teaching courses in JCU's new major in Computer Science with Healthcare Information Systems.

At **Marshall University**, Dr. **Carl Mummert** has been awarded tenure and promotion to the rank of associate professor, effective for the fall semester of 2015.

From **Sinclair Community College, David Ericson** and **Kinga Oliver** received tenure effective fall 2015. **James Hardman** and **Jesse Williams** joined the department as Annual Contracted Faculty effective fall 2015. **Vickie Lair** retired at the end of 2014-15. **Jeff Hollon** left the department in August 2015 to pursue a Ph.D. in Mathematics at Wright State University.

The Department of Mathematics at the **University of Dayton** is happy to announce that **Shannon Driskell** has been promoted to Professor and **Lynne Yengulalp** has been tenured and promoted to Associate Professor. **Aparna Higgins** is spending a year at California Lutheran University on a year-long sabbatical. After 46 years of teaching at the University of Dayton, **Bob Gorton** retired in 2015. The department welcomes **Alan Veliz-Cuba** as an Assistant Professor. Alan earned a PhD from Virginia Tech in 2010. He held positions at the University of Nebraska at Lincoln and at the University of Houston and Rice University before coming to Dayton. The University of Dayton will host Undergraduate Mathematics Day, an undergraduate mathematics conference, on Saturday, November 7, 2015.

Invited Speaker for the Fall Meeting - Dana Mackenzie, 2015 Chauvenet Prize Recipient

"Gasketry, Poetry, and Punditry"

One of the great joys of being a science writer is that I can bring a small measure of public attention to work that deserves it. And one of the other joys is that I can sometimes satisfy my own curiosity!

In this lecture I will talk about one of my favorite articles, a story for *American Scientist* called "A Tisket, a Tasket, an Apollonian Gasket." First I'll talk about the history of this beautiful problem about nested circles, which has inspired more than one mathematician to poetry. Front and center will be the work of Peter Sarnak and his students, Hee Oh and Alex Kontorovich. I'll also provide an update on the 2010 article. In the second half of the lecture I'll talk about the origin of this article, how it got published in *American Scientist* and why I think that it worked so well as an expository article. Lessons may or may not be drawn about how mathematicians can communicate the beauty of their subject via the media.

Dana Mackenzie is a mathematician who went rogue and became a freelance writer. He earned a Ph.D. from Princeton University in 1983, and taught at Duke University and Kenyon College. In 1996 he enrolled in the Science Communication Program at the University of California at Santa Cruz. Learning the ropes of journalism enabled him to start a new career. He has written for such magazines as New Scientist, Discover, Scientific American, and Smithsonian. In addition, he has written two popular books and writes the ongoing series "What's Happening in the Mathematical Sciences," published by the AMS. He received the MAA's Chauvenet Prize for mathematical exposition this year. His hobbies include playing chess, hula dancing, and volunteering at the local animal shelter.

"How to Win at (One-Round) War"

In the fourth century BCE, a Chinese military strategist named Sun Bin helped his patron, general Tian Ji, win a best-of-three horse-racing match against the emperor of Xi. Sun Bin's advice was simple: Ji should race his worst horse against the emperor's best, and his two best horses against the emperor's two worst.

But what would the optimal strategy be if there were n horses? To make the question better defined, I rephrase it in terms of a card game called One-Round War (similar to the children's game of War). It becomes one of a class of problems known as linear assignment problems, for which a well-known solution algorithm exists. But a solution *algorithm* is not the same thing as a *solution*. By solving it with paper and pencil we can learn much more about what makes the problem tick.

The problem is also interesting as a case of mathematical crowd-sourcing. I was able to solve it only for n greater than 10 million. Gary Antonick mentioned my result in his *New York Times* "Numberplay" blog. One of his readers, Richard Chatwin, was able to improve my proof wonderfully and show my proposed strategy was correct for all n. Our joint paper on the problem will appear in *College Mathematics Journal*.

Khristo Boyadzhiev, 2013 Carl B. Allendoerfer Award Recipient

"The Binomial Transform"

This talk is an introduction to the theory of the binomial transform – a special transformation of sequences, used in discrete mathematics, analysis and combinatorics. We shall present the main properties of the binomial transform and show its connection to Euler's series transformation formulas. At the end, we shall provide several examples involving classical numbers, namely, Bernoulli numbers, Fibonacci numbers and harmonic numbers.

Khristo Boyadzhiev is a Professor of Mathematics at Ohio Northern University, where he teaches mostly calculus, differential equations, and real analysis. He is a native of Bulgaria; his MS and Ph.D in Mathematics are from Sofia's University Clement of Ohrid.

Invited Speaker - Christopher N. Swanson, 2014 Distinguished Teaching Award Recipient

"Active Learning in the Non-Calculus Classroom: My Favorite Activities"

When I completed my Ph.D. at the University of Michigan in 1999, I had experience in teaching precalculus and calculus and had received training on how to use active learning in these courses. During my first two years at Ashland University, I taught eight different courses (none of which were precalculus or calculus), and struggled with how to create an effective active learning environment for these courses as well. In the midst of my 17th year of teaching at Ashland University, I have taught most of these courses multiple times and have developed/found numerous activities that my students and I enjoy. In this talk, I will present my favorite activities from some of these non-calculus courses such as elementary statistics, probability, discrete mathematics and modern geometry.

Chris Swanson is a native Ohioan (but don't call him a Buckeye) who is originally from the Massillon/Canton area and received his B.S. from Denison University in 1994. He received his Ph.D. from the University of Michigan (GO BLUE!) in 1999 under the direction of Thomas F. Storer and immediately joined the faculty at Ashland University where he has also been the Director of the university-wide Honors Program for the last 8 years. At Ashland, he serves as a faculty advisor for the AU Student Chapter of the MAA, the Ohio Rho chapter of Pi Mu Epsilon and the AU Problem Solving Group. Chris also created and oversees Ashland University's actuarial science major. Chris's research interests are combinatorics and probability. Chris is a national Project NExT Fellow (Brown Dot) and has served as an Ohio NExT Co-Coordinator since 2004. Chris has been active in the Ohio Section, having been an Ohio NExT Fellow, having served on CONCUR and CONSTUM, having chaired contributed paper sessions, and having given 15 presentations at Ohio Section meetings or Ohio NExT workshops. In 2006, Chris received the national Alder Award from the MAA in recognition for distinguished teaching by a beginning mathematics faculty member and he received the Ohio Section Distinguished Teaching Award in 2014. In his spare time, Chris enjoys watching movies, playing disc golf, cycling and participating in the applied probability seminar.

Ohio NExT Continues to Support New Math Faculty

Ohio 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 Section.

On Thursday evening, October 22nd, the night preceding the Ohio Section Fall Meeting, members of Ohio NExT will gather for a banquet beginning at 7:00 p.m. at the Best Western – Airport (1450 Airpointe Drive, Columbus, OH 43219). This is a great opportunity to meet old friends and make new ones. After the banquet, the NExTers will spend an hour or so discussing a topic related to the profession.

Then, on Friday morning, October 23rd, the Ohio NExT program will continue on the Capital University campus. The program will feature two workshops, as well as contributed talks by Ohio NExTers. More information regarding the program will be available soon. At last spring's meeting, the NExT workshop at Marshall University featured Annalisa Crannell of Franklin and Marshall College and Carl Lee of the University of Kentucky for the fifty-minute workshops. Kim Schroeder of Mountwest Community and Technical College and Clayton Brooks of Marshall University presented 15-minute talks.

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 for our NExT Banquet and Workshop, as well as the Ohio Section Meeting that follows. Contact Chris Swanson (cswanson@ashland.edu) for membership information and details.

Ohio NExT is coordinated by Katie Cerrone, University of Akron (kc24@uakron.edu), Chandra Dinavahi of the University of Findlay (dinavahi@findlay.edu) and Chris Swanson, Ashland University (cswanson@ashland.edu).

Invited Speaker - Carol Schumacher, CUPM *Curriculum Guide* co-chair

"CUPM Curriculum Guide: A Resource for Continual Curricular Improvement"

The MAA's Committee for the Undergraduate Program in Mathematics (CUPM) is charged with making curricular recommendations to the mathematical community. Over the last half century, the committee has authored a set of curriculum recommendations about every decade. In the *2015 CUPM Curriculum Guide to Majors in the Mathematical Sciences* the committee "interprets its task broadly, both in affirming the breadth of possible offerings to undergraduate students majoring in mathematics and in understanding 'mathematics' broadly to encompass what we call the mathematical sciences." This broad interpretation "works against a single shared understanding of the phrase 'mathematics major'" (From the Introduction) and, increasingly, "it makes little sense to prescribe . . . a single static list of 'essential' requirements. . . . Nevertheless, majors in the mathematical sciences do share some fundamental elements. The 2015 CUPM Curriculum Guide to Majors in the Mathematical Sciences offers widely considered and broadly conceived national perspectives both on these fundamental elements and on the variety of possible majors they can support." (From the Overview) Carol Schumacher, who was co-chair of the steering committee for the guide, will give a broad overview and facilitate a discussion of strategies for using the guide as a resource for the continual improvement of our undergraduate programs.

Carol Schumacher is Professor of Mathematics at Kenyon College faculty. She received her BA from Hendrix College and her Ph.D. in mathematics from The University of Texas at Austin. She has served three terms as chair of the mathematics department and is the recipient of Kenyon's Trustee Teaching Award. Schumacher is currently serving as chair of the Kenyon faculty. She is the author of *Closer and Closer: Introducing Real Analysis* and *Chapter Zero: Fundamental Notions of Abstract Mathematics*, 2E.

Schumacher is active in the Mathematical Association of America and has just completed her work as co-chair of the steering committee for the *2015 CUPM Curriculum Guide to Majors in the Mathematical Sciences*. In recent years she has been invited to address the Project NExT fellows at their summer workshop and has also given invited addresses at the Legacy of R.L. Moore conference.

Registration Information for Fall Meeting at Capital University

Online registration is preferred. You may visit the Section web site at http://www.maa.org/Ohio on or after Tuesday, September 8 for one-stop registration, banquet reservation, and abstract submission. The deadline for meeting pre-registration with banquet reservations is October 16. Abstracts for contributed papers must be submitted by October 9.

On-site meeting registration is always available, but last-minute banquet tickets cannot be guaranteed. Early registration helps those making the meeting arrangements and is always appreciated. On-site registration and packet pickup will begin 12:00 p.m. on Friday in the Learning Center 1st Floor Lobby and will continue 8:00 a.m. Saturday.

Meeting participants who are unable to register online may register by mail by sending: 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 ($30 ordinary registration, $15 retired or part-time, no fee for students or first-time attendees), banquet fee ($18 per person)] to:
Ohio Section MAA Meeting c/o Jon Stadler
Mathematics, Computer Science and Physics
Battelle Hall Room 125, Capital University
1 College and Main
Columbus, OH 43209-2394.
Registration by mail will be pending receipt of registration fees.

Fall Meeting Program

Registration is in the Learning Center 1st floor lobby. Vendor and book exhibits will be in Troutman Hall lounge. The banquet activities are located in the Student Union - Schneider Conference Lounge.

Friday, October 23	
12:00-4:00	Registration
12:00-1:00	Committee Meetings:
	CENTENNIAL COMMITTEE
	CONCUR (Curriculum)
	CONSACT (Section Activities)
	CONTEAL (Teacher Education & Licensure)
1:00-4:00	Vendor & Book Exhibits
1:15-1:30	Welcome and Announcements
1:30-2:30	Invited address: **"Gasketry, Poetry and Punditry: Communicating Math to the Masses"** Dana Mackenzie
2:30-2:55	Break
2:55-3:00	Centennial Minute
3:00-4:00	Invited Address: **"The New CUPM Guidelines"** Carol Schumacher, Kenyon College
4:10-5:50	Executive Committee Meeting
4:15-5:50	Contributed Paper Sessions
6:30-6:45	Social Time
6:50-8:00	Banquet
8:15-9:15	Distinguished Teaching Award Presentation: **"Active Learning in the Non-Calculus Classroom: My Favorite Activities"** Chris Swanson, Ashland University

Saturday, October 24	
8:00-10:00	Registration
8:00-10:00	Book Vendors and Exhibits
8:00-9:25	Coffee and Pastries
8:50-9:25	Committee On Local Arrangements
9:25-9:35	Welcome and Announcements
9:35-10:35	Invited Address: **"How to Win at (One-Round) War"** Dana Mackenzie
10:35-10:50	Break
10:50-11:50	Contributed Paper Session
12:00-1:00	Invited Address: **"The Binomial Transform"** Khristo Boyadzhiev, Ohio Northern University
1:00-1:10	Closing Remarks

Event locations are subject to change. Check the official program you receive when you register for the meeting in the Learning Center 1st floor Lobby. Also, check the Section web page, www.maa.org/Ohio, for program updates, online registration, and contributed paper submissions.

About Capital University

Located in the Columbus, Ohio, community of Bexley, Capital University is a private, four-year undergraduate institution and graduate school. Capital prepares students for meaningful lives and purposeful careers through a relevant liberal arts core curriculum and deep professional programs. Influenced by its Lutheran heritage, Capital places great emphasis on the free and open exchange of ideas, seeking out diverse perspectives, active participation in society, leadership and service. With a focus on rigor and experiential learning, the University capitalizes on its size, location, and heritage to develop the whole person, both inside and outside the classroom.

Capital University was included in Money's 2015 Best Colleges, a ranking of the top 736 schools that "provide the best value for your tuition dollar."

Driving Directions:

From the North or South: Travel I-71 to the Broad Street exit. Turn east (driving away from downtown) onto Broad Street and drive 2.5 miles to Drexel Avenue in Bexley. Turn right onto Drexel Avenue and continue south until Drexel ends in front of the campus at Main Street. Turn left (east) onto Main Street. At the next light, Pleasant Ridge Avenue, turn right (south).

From the West: Travel east on I-70 to the Bexley/Main Street exit. Exit at Bexley/Main Street. The exit ramp automatically turns onto Alum Creek Drive, which will dead end at Main Street (in front of the Kroger store). Turn right (east) on Main Street. At the fourth traffic light, turn right (south) on Pleasant Ridge Avenue.

From the East: Travel west on I-70 to the Livingston Avenue exit. Turn left (west) on Livingston Avenue. Turn right (north) at the first traffic light onto Alum Creek Drive. When Alum Creek dead ends in front of the Kroger store, turn right (east) on Main Street. At the fourth traffic light, turn right (south) on Pleasant Ridge Avenue.

From the Northwest: Travel south on I-75 to Route 23. Follow Route 23 into Columbus and take I-270 east to I-71 South. Travel south on I-71 to the Broad Street exit. Turn east (driving away from downtown) onto Broad Street and drive 2.5 miles to Drexel Avenue in Bexley. Turn right onto Drexel Avenue and continue south until Drexel ends in front of the campus at Main Street. Turn left (east) onto Main Street. At the next light, Pleasant Ridge Avenue, turn right (south).

Directions to hotels. Head north on Pleasant Ridge to Main Street, turn right. In 0.1 miles, turn left onto Cassady. In about 3 miles, Airport Dr. is on the left (for Staybridge and Courtyard), and Airpointe Dr. (for Best Western) is on the right just beyond Airport.

Hotel Information

All rooms will be released after September 23. Each of the following hotels has a block of rooms for conference attendees.

Staybridge Suites.	*Best Western*.	*Courtyard by Marriott*.
2890 Airport Drive	1450 Airpointe Dr	2901 Airport Drive
Columbus, OH 43219	Columbus, OH 43219	Columbus, Ohio 43219
(614) 473-9888	(614) 337-8400	(614) 475-8530
Price: $119	Price: $84	Price: $120
Room Type: Studio suites	Room Type: Two double or King	Room Type: Two double or King
Group Code: Ohio MAA	Group Code: Capital Univ/Ohio MAA	Group Code: Ohio MAA

In addition to the above hotels, there are a few more in the same area for which rooms have not been blocked off. Their phone numbers are listed below.

Country Inn & Suites (614) 478-2900
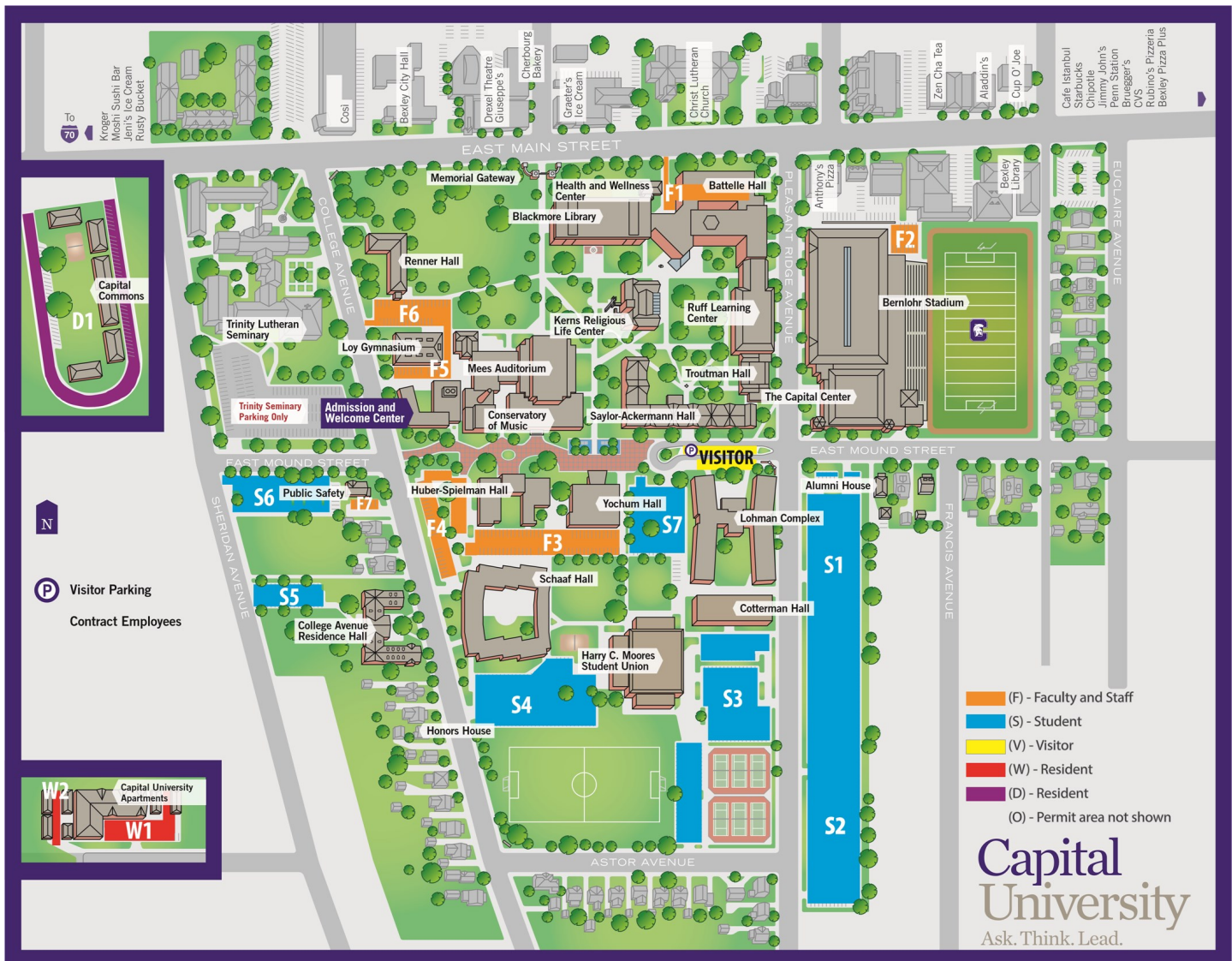*Embassy Suites* (614) 536-0500
Four Points by Sheraton (614) 475-8383
Homewood Suites (614) 428-8800
Columbus Airport Marriott (614) 475-7551

Parking Information

Please park in the lots on the southwest corner of Pleasant Ridge and East Mound Street, marked S1 and S2 on the map. The map can be found on page 13. If S1 and S2 are full, parking is also available in lot D, which is west of campus on the south side of the street, across the street from the Rusty Bucket restaurant. By late afternoon on Friday, parking in the S1 and S2 lots should be much more available. On street parking is also available on Pleasant Ridge in designated areas.

Call For Contributed Papers

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 9.

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, Bill Fuller, by e-mail at w-fuller@onu.edu, or by U.S. mail at Department of Mathematics and Statistics, Ohio Northern University, 525 S. Main St, Ada, OH 45810. Abstracts should be between 25 and 75 words in length and should employ proper English grammar and spelling. One speaker per session is greatly preferred, but two speakers in one session can be accommodated if necessary. Please use only plain text in your title and abstract as 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. Document cameras (Elmo's) are available, but please indicate a need for one when you register. Internet access will be provided. Speakers with specific questions about technology availability should contact Jonathan D. Stadler at jstadler@capital.edu. You may submit abstracts online at the Section web page: http://sections.maa.org/ohio.

OCTM Conference to Feature MAA Scholar

Dr. James Tanton, visiting scholar and MAA Mathematician-at-Large, will be a keynote speaker at the Ohio Council of Teachers of Mathematics (OCTM) Annual Conference, to take place in Cincinnati on October 15-16, 2015.

Dr. Tanton believes that the beauty and delight of mathematics should be accessible to everyone. After earning a Ph.D. in algebraic topology from Princeton in 1994, and teaching collegiate mathematics for several years, he became a full-time high school teacher at St. Mark's School in Southborough, MA, in 2002. He has published many mathematical books and articles that are intended for a general audience, including *Solve This: Math Activities for Students and Clubs*, and he is the founder of the St. Mark's Institute of Mathematics outreach program.

More information about the OCTM Conference, including registration materials, can be found on-line at http://www.ohioctm.org.

University of Dayton Hosting Biennial Event for Undergraduates

On Saturday, November 7, 2015, the University of Dayton will host Undergraduate Mathematics Day, an undergraduate mathematics conference that celebrates 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. Further details about the conference will be available at http://go.udayton.edu/mathevents.

Fall Meeting Information Website

For information about the meeting, such as local and conference information, the program, etc, you can check the blog for the meeting at https://ohiomaafall2015.blogspot.com

Program information will be updated regularly on the blog, so it will be a very good place to keep informed about the meeting.

James Albert Receives Statistics Award

James Albert was presented the American Statistical Association's Founders Award during the presidential awards ceremony August 11 at the 2015 Joint Statistical Meetings in Seattle. The Founders Award is the American Statistical Association's highest recognition for distinguished service and leadership within the association and the statistical science profession. Award recipients are presented with a certificate and engraved crystal bowl. The award is presented as a surprise during the awards ceremony at the Joint Statistical Meetings.

The citation reads: **James H. Albert,** for outstanding leadership and efforts in statistical education and relationship-building between academia and industry; for service as editor of *The American Statistician* and the *Journal of Quantitative Analysis of Sports* and as a member of the *Significance* editorial board; for major contributions as associate editor of several ASA journals; for chairing and participating in numerous ASA committees and councils devoted to statistics education, Bayesian statistics and sports statistics; and for heightening interest in statistics through the use of sports examples and applications presented in papers, technical reports, lectures, blogs and books.

James Albert is professor of mathematics and statistics at Bowling Green State University. His interests include Bayesian thinking, statistics education and the application of statistical thinking in sports. He is a fellow of the American Statistical Association and has written three baseball books including "Curve Ball" with Jay Bennett, "Teaching Statistics Using Baseball" and "Analyzing Baseball Data with R" with Max Marchi. He is concluding his term as editor of the Journal of Quantitative Analysis of Sports, the only statistics journal devoted to sports applications. He received a grant with Dr. Maria Rizzo from the National Science Foundation to develop a new undergraduate program in data science.

2014-2015 Ohio Section Officers and Committees

ELECTED OFFICERS

President
Daniel Otero, Xavier University
513-745-2012; otero@xavier.edu (2016)

Past-President
John Prather, Ohio University - Eastern
740-699-2498; prather@ohio.edu (2016)

President-Elect
Chris Swanson, Ashland University (2016)
419-289-5264; cswanson@ashland.edu

Section Governor
William Higgins, Wittenberg University
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(2018)

Secretary
Pamela Warton, University of Findlay
419-434-4147; warton@findlay.edu (2017)

Treasurer
Brian Shelburne, Wittenberg University
937-327-7862; bshelburne@wittenberg.edu
(2108)

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Department Liaisons Coordinator
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740- 351-3309; coconnor@shawnee.edu
(2017)

Webmaster
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On-line Registration
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Newsletter Editor
David Stuckey, Defiance College (2018)
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330-927-8809; kc24@uakron.edu
Chris Swanson, Ashland University (2016)
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Chandra Dinavahi, U. of Findlay
419-434-6598; dinavahi@findlay.edu

OhioMATYC Liaison to OhioMAA
Jim Anderson, University of Toledo

OCTM Liaison
Sandy Schroeder, Ohio Northern University

Archivist
Daniel Otero, Xavier University
513-745-2012; 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. See the Bylaws.

CONTEAL
*Aaron Blodgett, Univ of Findlay (2017)
Jenny McKinney, Shawnee State U. (2016)
Sandy Schroeder, Ohio Northern U. (2016)
Najat Baji, Sinclair Comm College (2017)
Laurie Dunlap, University of Akron (2017)
Susan Thompson, Otterbein University (2017)

CONSTUM
*Ryan Rahrig, Ohio Northern Univ (2016)
Melissa Dennison, Baldwin Wallace U. (2016)
Mohammed Zaki, Ohio Northern Univ (2016)
Matthew McMullen, Otterbein Univ (2017)

CONSACT
*Paige Rinker, John Carroll University (2018)
Lola Thompson, Oberlin College (2016)
Kathryn Leed, Lorain Cty Comm Coll (2017)
Flavia Sancier-Barbosa, Antioch Coll (2017)

CONCUR
*Chandra Dinavahi, U. of Findlay (2016)
Glen Lobo, Sinclair Comm. College (2016)
William Fuller, Ohio Northern Univ (2017)
Syvillia Averett, Central State Univ (2017)

OTHER COMMITTEES

Program Committee
*Bill Fuller, Ohio Northern U. (2016)
Laurie Dunlap, University of Akron (2017)
Barbara Margolius, Cleveland State U. (2018)

Nominating Committee
* Phil Blau, Shawnee State Univ (2018)
Wiebke Diestelkamp, Univ of Dayton (2017)
Jon Stadler, Ashland University (2016)

Teaching Award Committee
* John Prather, Ohio University - Eastern
(Past President) (2017)
Pam Warton, University of Findlay
(Secretary),
Lew Ludwig, Denison University (2016)
Chris Swanson, Ashland University (2017)

Centennial Committee
*David Kullman, Miami University (2016)
Tom Dence, Ashland University
Tom Hern, Bowling Green State University
Danny Otero, Xavier University
Al Stickney, Wittenberg University

LOCAL ARRANGEMENTS FOR MEETINGS

Fall 2015: Capital University
Jon Stadler, jstadler@capital.edu

Spring 2016: Ohio Northern University
Sandy Schroeder, s-Schroeder@onu.edu

Fall 2016: College of Wooster
Drew Pasteur, dpasteur@gmail.com

If you would like to become a part of one of these committees, or would be interested in having your institution host a meeting, please contact President Danny Otero at otero@xavier.edu. There is a guide for local arrangements at http://sections.maa.org/ohio/governance.html as well as a meeting on Saturday morning.

Thank You to the many people who contributed articles and information for this newsletter, particularly for those who volunteered items that are not usual.

David Stuckey, Editor

Calendar

Ohio Section Meetings

Fall 2015 Section Meeting, October 23-24
Capital University, Columbus, Ohio

Spring 2016 Section Meeting, April 8-9
Ohio Northern University, Ada, OH

Fall 2016 Section Meeting, October 28-29
College of Wooster, Wooster, Ohio

National MAA-AMS Meetings

Annual Joint Meetings, January 6-9, 2016, Seattle, WA

MathFest, August 3-6, 2016, Columbus, OH

Annual Joint Meetings, January 4-7, 2017, Atlanta, GA

MathFest, July 26-29, 2017, Chicago, IL

Annual Joint Meetings, January 10-13, 2018, San Diego, CA

MathFest, August 1-4,2018, Denver, CO

Annual Joint Meetings, January 16-19, 2019, Baltimore, MD

MathFest, July 31 - August 3, 2019, Cincinnati, OH

Annual Joint Meetings, January 15-18, 2020, Denver, CO

OHIO FOCUS

The newsletter of the Ohio Section of the Mathematical Association of America first appeared in 1973 and 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 postcards are sent using labels provided by the MAA.

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    701 N Clinton
    Defiance, OH 43512

The deadline for the next newsletter is **February 10, 2016**. E-mail copy is preferred. Early submission is appreciated. Please send copy to the editor (see above), and also to the Section Webmaster, Darren Wick (dwick@ashland.edu), for posting on the web.

Other Meetings: Ohio and Surrounding States

Miami University 43rd Annual Conference, Combinatorics and its Applications, September 25-26, 2015, Oxford, OH
http://miamioh.edu/cas/academics/departments/mathematics/about/events/annual-mathematics-conference/index.html

OCTM Annual Meeting, October 15-16, 2015, Cincinnati, OH
http://www.ohioctm.org/conferences/65th-annual-conference-cincinnati

Indiana Section MAA Section Meeting, October 17, 2015, Perdue North Central, Westville, IN
http://sections.maa.org/indiana/

University of Dayton Undergraduate Mathematics Day, November 7, 2015, Dayton, OH
http://go.udayton.edu/mathevents.

Allegheny Section MAA Section Meeting, April 1-2, 2016, Gannon University, Erie, PA
http://sections.maa.org/allegheny/

Central Section AMS, April 1-2, 2017, Indiana University, Bloomington, IN
http://www.ams.org/meetings/sectional/sectional.html

Other National Meetings

AMATYC Annual Conference, Nov 19-22, 2015, Nashville, TN
http://www.amatyc.org/?2015ConfHome

T^3 International Conference, February 26-28, 2016, Orlando, FL   http://education.ti.com/en/us/pd/international

International Conference on Technology in Collegiate Mathematics (ICTCM), March 10-13, 2016, Alanta, GA   http://www.pearsonhighered.com/ictcm/

NCTM National Meeting, April 13-16, 2016, San Francisco, CA
http://www.nctm.org/Conferences-and-Professional-Development/Annual-Meeting-and-Exposition/