Ohio Focus

The MAA Ohio Section Newsletter

Volume 10 | Fall 2014 | Number 5

Fall Meeting at Wittenberg University October 31– November 1, 2014

Barbara Deer Kuss Science Center — Registration Location

The Fall 2014 Meeting of the Ohio Section MAA will be held at Wittenberg University in Springfield on October 31 and November 1. Lew Ludwig of Denison University, Adam Parker from Wittenberg University, Robert Devaney of Boston University, current MAA president, and William Dunham from Muhlenberg College (retired) are the invited speakers. The meeting starts on Friday with committee meetings at 12:00. The opening welcome before Lew Ludwig's address will begin at 1:15 in Bayley Auditorium in the Barbara Deer Kuss Science Center. Of note are the two 25-minute discussions on section meeting attendance, one on each day of the meeting. There will be contributed paper sessions on both days. Graduate and undergraduate students in mathematics or related fields are encouraged to attend.

Adam Parker Receives George Pólya Award

At the MAA MathFest in August 2014, Adam E. Parker received the George Pólya Award in recognition of expository excellence for his article *"Who Solved the Bernoulli Differential Equation and How Did They Do It?"* It appeared in the March 2013 edition of the *College Mathematics Journal*.

The Pólya Award was established in 1976 in honor of the distinguished mathematician and author from Stanford University. The summary of the article and more information on Dr. Parker, including his response, can be found on page 8.

Adam Parker at the awards ceremony with Bob Devaney, MAA President

President's Message

Hello Everyone! As I write this, it is late summer and most of us are probably either concentrating on getting in our last summer fun activities or in preparing for the new school year (or both). As you read this, the new year is well underway, and I hope all is going well with your classes and your students.

Last spring at The University of Toledo, we enjoyed a joint program with the Great Lakes Section of the Society for Industrial and Applied Mathematics. This gave the meeting a more applied flavor as we had multiple speakers from SIAM along with our MAA speakers. Not only did Steve Goldner, David Lamb and Charles Groetch give excellent talks, we also welcomed Michael Dorff to the Section. This was a special treat for me personally as Michael and I both graduated in 1997 from the University of Kentucky and had the same advisor, Ted Suffridge (and for the record, I had nothing to do with putting Michael on the program). Phil Blau, now the Past -President of the Section, also did a wonderful job in his outgoing talk. His service to the Section as President last year is greatly appreciated. In addition to the invited speakers, we had a panel discussion on "A Mathematics Education, Today's Industrial Opportunities," and 54 contributed talks, including a number of student talks. We had 176 attendees, 87 of which were students. Particular thanks to Lew Ludwig who chaired the Program Committee, and to our local arrangements coordinator, Jim Anderson.

This fall I expect to have an equally productive meeting at Wittenberg University. Speaking will be Bob Devaney, the current MAA President (Boston University), Lew Ludwig, our 2013 Section Teaching Award winner (Denison University); William Dunham (Muhlenberg College, retired), and Adam Parker (Wittenberg University). In addition, we will have a workshop after the meeting given by Danny Otero and Adam Parker on History of Math.

One feature of this meeting will be special sessions to discuss ways to increase participation in the Section. Along these lines, there are many ways to participate in the activities of the section. For new faculty in the section (in their first five years of teaching), Ohio NExT provides an excellent opportunity to get to know others in the section. While more details for this excellent program are provided elsewhere in this newsletter, suffice it to say that without this program, I would not be writing this message, as it was my first contact with other members of our community. If you have some newer members of your department, please encourage them to attend these activities which precede each Section meeting. Questions should be directed to one of the co-coordinators, Katie Cerrone or Chris Swanson.

Another low stress way to become more involved is to volunteer for one or our standing committees. These committees do the vast majority of their work at meetings an hour or so before our Section meetings, and by email. They are not huge time commitments. These committees include the Committee on Student Members which directs and coordinates all activities of the section which are specifically for student members; the Committee on Section Activities which organizes the workshop that takes place immediately after Fall section meetings; the Committee on Teacher Education and Licensure which keeps the Section aware of significant changes to K-12 education and licensure requirements; and, finally, the Committee on Curriculum which looks at curricular issues in mathematics, especially college-level mathematics. If you are interested in serving on any of these committees, or have questions, please contact me a prather@ohio.edu.

One major project this year is our required decennial by-laws review. I want to thank Barbara D'Ambrosia for spearheading this effort. I also want to thank the other members of the Bylaws Review Committee: Wiebke Diestelkamp, Danny Otero, Bill Higgins and David Kullman. I know they have spent a significant part of their summers working on this review. One major change they have recommended is to change the term of the Section President from one to two years in accordance with National MAA recommendations. You may find more information about all of the recommended changes at http://sections.maa.org/ohio/governance.html.

Looking forward a bit, our Spring meeting in 2016 at Ohio Northern University will be our Centennial Celebration. The Centennial Committee has been working hard on this event, and it should be a terrific event. The Ohio

(Continued on page 17)

Governor's Report

I've just returned from MathFest, which was held this year in beautiful Portland, OR. In addition to attending the Board of Governors meeting, I represented the Ohio Section at the Section Officers Meeting, and I presented a workshop on visualizing mathematics for Project NExT. Oh, and I attended talks and visited with people whom I only see at national meetings. All in all, it was a great four days. It's notable that MathFest 2014 set a record for overall attendance at MathFest, as well as a record for the number of contributed papers at MathFest.

This is my last year as the Governor from the Ohio Section. Early in Spring 2015, the Section will elect a new Governor. As described in the Section's bylaws, the officers of the Section will nominate two members of the Section for this position.

Before the Board of Governors meeting, the governors received more than 150 pages of reports from various MAA staff, officers, and committees. In my report for this newsletter, I'll pull out some of the highlights from those reports and discussions at the BoG meeting itself.

You may have noticed that the MAA has withdrawn from participation in the Combined Membership List (CML). We were not the first society to do so, and in fact the AMS will be discontinuing the CML altogether in the near future. There are two primary reasons this: the technological foundations of the list are outdated, cumbersome, and do not allow for real time updating; and the list itself is somewhat obsolete in the age of Google and other search engines. For MAA

members who want to check whether someone else is an MAA member, you can use the member lookup tool, which you access through your profile page on the MAA web site. You'll need to log in to your MAA member account to access this tool. You can search for members by name, school, city, etc., and the results will list the member's address, MAA committees, and other relevant information.

The report on the MAA budget was cautiously optimistic. While the MAA remains financially healthy, we have a budget deficit again in 2014, and will likely have a deficit in 2015 as well. We expect to start seeing some budget surpluses starting in 2016, which will put us on the road to a more secure financial future.

The MAA administers a large number of awards and prizes for teaching, writing, research, and service, by faculty and students. You can find a list of these awards at http://www.maa.org/programs/maa-awards. If you would like to suggest that someone be considered for a particular award, check the MAA website for nomination forms and instructions. In the case of named lectures and other awards that do not have a formal nomination procedure, contact the chair of the relevant committee. (Generally, there is a different committee that oversees each award.)

Do you follow the MAA on social media? The MAA has accounts on Facebook, Twitter, YouTube, Flickr, and Google+, all of which have seen an increase in the number of followers just since March of this year. In fact, the number MAA fans on Google+ increased from just 500 to over 33,000 between March and August. Do the math on that percentage change!

The Committee on the Undergraduate Program in Mathematics (CUPM) expects to release a new curriculum guide, the first since 2004, in January of 2015, six months earlier than originally planned. The mammoth effort of collecting information and writing this guide is being spearheaded by Martha Siegel (Towson University) and Carol Schumacher (Kenyon College).

Aparna Higgins (University of Dayton) ended her term as the Director of Project NExT at the end of August. The Board of Governors approved a citation thanking her for her many years of service to this important and innovative program. The full text of the citation is on page 8.

Start planning now to attend the Joint Mathematics Meetings in San Antonio in January, and MathFest in Washington, DC, next August. In celebration of the MAA Centennial, the 2015 MathFest will run for a full four days (Wednesday-Saturday), instead of the traditional three days. As part of the celebration, each

(Continued on page 5)

Report on Proposed Bylaw Revisions

The Ohio Section is required to perform a review of its bylaws in 2014-2015, as it regularly does every ten years. The Executive Committee got a jump on this process at the Spring Section meeting by appointing a Bylaws Committee consisting of Barbara D'Ambrosia (John Carroll University, Section Governor), Wiebke Diestelkamp (University of Dayton), Bill Higgins (Wittenberg University), David Kullman (Miami University), and Danny Otero (Xavier University, Section President-Elect). The committee met in person in June and continued to have e-mail conversations throughout the summer. A summary of propsed changes from the current bylaws is given below. We must submit a draft of the revisions to the MAA's Committee on Sections in December; they will review the bylaws and respond with any concerns or suggested changes they have. At the Spring 2015 Section meeting at Marshall University, the Section will vote whether to approve the revised bylaws. Assuming a favorable vote at the Section meeting, a vote will be conducted of the entire Section membership shortly after the Spring meeting. Again, assuming that 55% of those voting approve the revised bylaws, the Board of Governors will vote to approve them at MathFest 2015. Please take a few minutes to read the draft of the revised bylaws on the Section web page, at http://sections.maa.org/ohio/governance.html, and make your response to any member of the Bylaws Committee with your comments.

Proposed changes to the Ohio Section bylaws:

- The term of Section President becomes two years instead of the current one year. This longer term for the President provides more continuity in that key leadership position. The terms for President-Elect and and Past President will remain the same, at one year each. Recent past presidents are no longer automatically members of the Nominating Committee, so the overall commitment for a President is 4 years instead of the current 6 years.

- The Nominating Committee consists of the President of the Section and two members appointed by the President-Elect or Past President. Under the current bylaws, the Nominating Committee consists entirely of past presidents of the Section, which can inadvertently lead to perpetuation of a particular leadership style or "type" of president.

- A Teaching Award Committee is established, consisting of two appointed members in addition to the President-Elect or Past President who serves as chair. Although the current bylaws do not mention a Teaching Award Committee, longstanding practice has provided a committee of recent award winners and chaired by the Past President. As with the Nominating Committee, having appointed members will make it less likely that this committee will inadvertently choose award winners all of whom share a particular teaching style.

- An Ohio NExT Organizing Committee is established. This committee consists of appointed members, one of whom is designated as the Ohio NExT Coordinator and serves on the Executive Committee. Aside from the Coordinator having a position on the Executive Committee, the language in the bylaws permits the Ohio NExT leadership team to function as it has since the inception of the program.

- The chair of the Program Committee becomes an officer of the Section. Under the current bylaws, the chair of the Program Committee is the only elected member of the Executive Committee who is not an officer. With the change in the length of the President's term, the Section will not have both a President-Elect and a Past President in the same year, so promoting the chair of the Program Committee to officer status preserves the number of officers of the Section, and ensures that the officers comprise at least half of the Executive Committee.

- The Secretary and Treasurer may serve two consecutive terms, but must then step down for at least three years before filling those offices again. Under the current bylaws, the Secretary and Treasurer may be reelected repeatedly, limited only by their longevity. This change ensures that no one gets into a rut in these positions, and gives the Executive Committee more choices for appointing an experienced person to fill in, should the Secretary or Treasurer be unable to complete their terms.

- A quorum for the Executive Committee is set at 6 and a quorum for business meetings of the Section is set at 12. Currently, there is no quorum for the Executive Committee, and a quorum for a business meeting is the number of Section members present at the meeting.

(Continued on page 5)

Proposed Bylaw Revisions

(Continued from page 4)

- There are a number of other minor changes that reflect current practice but aren't currently in the bylaws. For example, no person may serve in two officer positions at the same time, nor as an officer and committee chair, with the exception of Secretary-Elect or Treasurer-Elect in the case of a Secretary or Treasurer running for reelection.

Report submitted by Barbara D'Ambrosia
Section Governor
bdambrosia@jcu.edu

In Memoriam

Bert Kerr Waits died on July 27, 2014 in Orlando, Florida from complications following five weeks in the hospital to set a broken leg. Born December 21, 1940, Bert earned his BS, MS and PhD in 1962, 1964, and 1969 respectively, all from the Ohio State University.

Bert was a Professor Emeritus of Mathematics at The Ohio State University, where he taught from 1961 to 1991. He was the cofounder and director of the *Ohio Early College Mathematics Placement Testing* Program of the Ohio Board of Regents, which became a model for the nation. Besides having publications in internationally recognized professional journals, Bert was known for his many keynote lectures, workshops and mini-courses for the MAA and NCTM. He was a co-author of the NCTM's *1989 Curriculum and Evaluation Standards for School Mathematics.*

Working with Frank Demana, he played a key role in designing the Texas Instruments family of graphing calculators and promoting the use of handheld technology in mathematics education. Their graphing approach to the study of functions impacted secondary and college curricula worldwide. The approach included the notion of a 'complete graph' capturing the key features of the graph of a function. They also focused on the 'Power of Visualizations' and its impact on understanding and memory in mathematics education.

Additionally, Waits and Demana were co-founders of *T^3, Teachers Teaching with Technology*, the annual *International Conference on Technology in Collegiate Mathematics,* and the biannual *International Conference on Technology in Mathematics Teaching*. Bert co-authored numerous middle school, high school, and college textbooks, both precalculus and calculus.

Together with Frank Demana, Bert received the distinguished *Glenn Gilbert Award* of the National Council of Supervisors of Mathematics and the Ohio Council of Teachers of Mathematics' *Christopherson-Fawcett Award* for 'inspiration and achievement in education in mathematics'.

He was known not only for his substantial contribution, but also for his keen sense of humor. In his presence you not only learned something, but had fun doing it.

Governor's Report

(Continued from page 3)

MAA Section will receive a new flag.

The MAA's Council on Councils and Committees met in April to begin the process of filling positions on the many MAA committees. A new aspect of committee membership starting this year is that of copyright assignment. All new committee members will be required to assign copyright of any work done through that committee to the MAA. In the internet age, copyright law has changed, as has the notion of academic fair use of materials. The MAA has adopted this new policy on the advice of legal counsel, as a way to protect the work of the committees and their members. For most people serving on MAA committees, this agreement will be purely a formality, as most committees do not lead to a copyrighted product.

I'll end with my usual announcement that the MAA has many, many committees that are staffed by people like you. You can find a list of these committees http://www.maa.org/about-maa/governance/council-and-committees-list. If you would like to volunteer to serve on a committee, please let me know!

Barbara D'Ambrosia
John Carroll University
Section Governor
bdambrosia@jcu.edu

An Ohio Section Cast of Characters

Centennial Note #10, by David Kullman

In this note we meet some men and women who were active in the Ohio Section during its early years. More biographical sketches are planned for the Centennial History to be published next year.

Reginald Bryant Allen was the Section's first Chairman. He was elected at the organizational meeting on December 30, 1915, and served only until the First Annual Meeting in April 1916. He was born in 1872 in Medford, New Jersey, and graduated from Medford High School. He learned his freshman math before entering Rutgers University in the Class of 1893. He earned a M.S degree at Rutgers in 1897 and a Ph.D at Clark University in 1905 under Henry Taber. His dissertation was *On Hypercomplex Number Systems Belonging to an Arbitrary Domain of Rationality*. Allen was appointed professor of mathematics at Kenyon College in 1906, where he remained until his death in 1938. He was usually called "Gummy" Allen by his students after a cartoon character who wore gumshoes or sneakers. Besides serving as the Ohio Section's first Chairman, he was also its first Program Chairman in 1923-24.

Theodore Moses Focke was born in Massillon, Ohio, in 1871. He graduated from Case Institute of Technology in civil engineering in 1892 and was immediately appointed as an instructor in mathematics at an annual salary of $600. After a year in this position he became a tutor in physics and chemistry at Oberlin for three years. He earned a doctorate at the University of Göttingen in 1898 with a dissertation on *The Thermal Conductivity of Various Kinds of Glass*. Focke then returned to Case as a member of the mathematics department where he became the Kerr Professor and head of the department from 1908 until his retirement in 1943. He was also appointed as the first dean of that institution in 1918. In addition to serving as the second Ohio Section President (1916-17), he was Program Chairman in 1928-29.

Forbes Bagley Wiley was born in Brighton, Michigan, in 1880. He earned a Ph.D. from the University of Chicago in 1914. His dissertation was on *Proof of the Finiteness of the Modular Covariants of a System of Binary Forms and Cogradient Points*. Wiley taught mathematics at Denison University from 1910 until his death in 1956. He was professor and head of the mathematics department at the time the MAA was founded. In addition to being a charter member of the Ohio Section, Wiley served as the third Section Chairman (1917-18), Program Chairman (1938-39), and was the first Ohio Section Governor (1949-52).

William DeWeese Cairns, the 17th Chairman of the Ohio Section (1931-32), was born in Troy, Ohio, in 1871. After graduating from Troy High School, he entered Ohio Wesleyan University where he earned an A.B. degree in 1892. He then taught physics at Troy High School for two years before enrolling at Harvard University where he earned an A.M. in 1898. He taught at Oberlin College from 1899 until his retirement in 1939. In 1907 he received a Ph.D. degree in mathematics from the University of Göttingen, where he studied under David Hilbert. Cairns was serving on the editorial board of the *American Mathematical Monthly* in 1913, and he may well have been responsible for the organizational meeting of the MAA being held in Columbus. He served as Secretary-Treasurer of the MAA from its founding in 1915 until 1942. Following a term as MAA President in 1943-44, he was made honorary president for life.

Foster Lindsey Brooks was born on a farm near Carrollton, Ohio, in 1908. He attended a one- room school for seven grades, passed over the eighth grade, and graduated from Carrollton High School in 1925. He earned an A.B. degree from Mt. Union College in 1929 and a Ph.D. from Ohio State University in 1934. From 1933 to 1935 he taught mathematics and physics at Carrollton High School. In 1935, Dr. Brooks joined the faculty of Kent State University where he taught mathematics, physics and photography until his retirement in 1974. During WWII, Brooks was on leave from Kent State, doing anti-submarine work for the US Navy as part of an Operations Research Group. Later he was transferred to pro-submarine work, becoming director of the Submarine Operations Research Group for the Pacific fleet at Pearl Harbor. In 1947, he was presented with a Presidential Certificate of Merit, the nation's highest civilian award, "For Research Done During the War." Among other things, his team of scientists developed the guidance system for the first nuclear submarine (Nautilus). Foster Brooks served as Secretary-Treasurer of the Ohio Section for 25 years, from 1947 until 1972, and his careful records and reports have been of great help in tracing the history of the Section.

Grace M. Bareis and **Harriet E. Glazier** were among the charter members of the Ohio Section. Born in Canal Winchester, Ohio, in 1875, **Bareis** received her A.B. degree from Heidelberg College in Tiffin, Ohio, in 1897. In 1909 she became the first person to receive a Ph.D. in mathematics from Ohio State University. Her dissertation, *Imprimitive Substitution Groups of Degree Sixteen*,

(Continued on page 7)

Chris Swanson Honored with Distinguished Teaching Award

The recipient of the 2014 Award for Distinguished College or University Teaching of Mathematics of the Ohio Section of the Mathematical Association of America is Dr. Christopher Swanson of Ashland University. The award was presented to Dr. Swanson at the Ohio Section Spring meeting at the University of Toledo on April 5, 2014.

Dr. Swanson was previously recognized for his teaching excellence in 2006, when the MAA honored him with a Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member.

Dr. Swanson is a teacher of exceptional versatility and dedication, whose teaching style is characterized by flexibility, meticulous preparation, high expectations, and time invested in students. Displaying a contagious enthusiasm for all things mathematical, even corny jokes, he models a genuine passion for mathematics to students, whether or not they major in mathematics. Dr. Darren Wick, Chair of the Department of Mathematics and Computer Science at Ashland University remarks that Dr. Swanson has "continually achieved extraordinary success in teaching and has built a record that is both substantial and truly impressive." He characterizes Dr. Swanson as one of the best and most successful teachers he has ever known, whose contributions to the university and the department are irreplaceable.

Dr. Swanson's activities extend beyond the classroom. Examples include advising the local Pi Mu Epsilon chapter and the Math Club, encouraging students to participate in the William Lowell Putnam Mathematical Competition and the Ohio Section's Leo Schneider Student Mathematical Competition, and organizing the department's "Problem of the Month" contest. In addition, he developed the department's growing actuarial science program, and continues to advise its students and teach many of the program's courses.

Dr. Swanson has worked with more honors students than the rest of the department faculty combined; two of the resulting theses have won awards for Best Honors Thesis of the Year. As the Director of the Honors Program at Ashland University, he continues to nurture and encourage students of all majors to pursue an honors degree.

Dr. Swanson has also made important contributions to the larger mathematical community. A national Project NExT Fellow, he has been invited to give workshops to three different cohorts of new Project NExT Fellows. He has been co-director of Ohio NExT since 2004, providing support to many new faculty in the Ohio Section, both through Ohio NExT programming and through personal mentoring on how to start one's teaching career, how to be a good colleague within one's department and how to successfully achieve tenure.

Submitted by Wiebke Diestelkamp
Chair, Teaching Award Committee of the Ohio Section of the MAA 2013-2014

Centennial Note

(Continued from page 6)

was written under the supervision of Harry W. Kuhn. Bareis was an assistant professor of mathematics at Ohio State from 1908 until her retirement in 1946. Actually, she taught for two more years because of the shortage of mathematics instructors to serve the returning veterans. **Glazier** received her A.B. degree from Mt. Holyoke College in 1896. In 1897 she joined the faculty of the Western College for Women at Oxford, Ohio, which had been founded as a western extension of Mt. Holyoke. She earned her M.A. degree from the University of Chicago in 1908 and was Professor of Mathematics at Western College from 1905 until 1920. That year she moved to Los Angeles to teach at the Southern Branch of the University of California (now known as UCLA) until her retirement in 1940.

Some other Chairmen of the Ohio Section whose biographies can be found on the Ohio Masters of Mathematics website include: Charles N. Moore (1918-19), Samuel Rasor (1920-21), Harris Hancock (1924-25), R. D. Bohannan (1925-26), I. A. Barnett (1933-34), Tibor Radó (1943-44), Arnold Ross (1968-69), and James Leitzel (1984-85).

Adam Parker Citation From the Awards Booklet at 2014 MathFest in Portland, Oregon

"Who Solved the Bernoulli Differential Equation and How Did They Do It?", The College Mathematics Journal, Volume 44, Number 2, March 2013, pages 89-97.

We mathematicians are so focused on the theory and techniques of our subject that we virtually ignore its history. Even when we attach a name to a topic, such as the Bernoulli Differential Equation, the modern reader cannot be confident that it is the correct name. Adam Parker takes us on a mystery tour to seek to identify who was the first to actually solve Bernoulli's Equation.

You might think this entails nothing more than a careful search of very old publications seeking to find the first published solution, but there is much more to the story than that. Parker transports us to the 1690s, a world very different than the one we know today. Leibnitz and the Bernoulli brothers, Jacob and Johann, relate to one another as mentors, mentees, friends, and sometimes fierce competitors. Jacob poses the equation in print as a challenge problem. All three present solutions using a variety of techniques including reduction to a linear differential equation, separation of variables, and variation of parameters. Leibnitz's claim is described deliberately vague, apparently to hide special insights and to hold on to the competitive advantage. Does it really matter who was first? Do we want to judge who solved it best? Parker's engaging article, like any good math article, raises more questions than it answers.

But Parker doesn't stop with reporting the early history. He observes that all the modern textbook authors follow like sheep, presenting Jacob's substitution. This solves the problem easily enough, but leaves the student to memorize a specific substitution that doesn't generalize to other problems. Is this the best pedagogy? Parker lobbies for using this problem to introduce variation of parameters. Whether you agree or not with the teaching philosophy, Adam Parker has written an article that is enjoyable to read, informative, and thought provoking.

Response from Adam Parker

I am deeply grateful to receive the Polya Award. This paper is part of an ongoing professional and pedagogical project of integrating primary sources into my teaching – a project that started at an Ohio MAA Summer Short Course presented by Danny Otero and David Pengelley in 2008. I am grateful to them for showing me how history and primary sources can enrich the classroom experience for my students and myself. I also thank my various classes and Wittenberg University for the opportunity and encouragement to try new things in my classes. I am indebted to the many people that greatly improved this manuscript. But most of all, I must thank the prize selection committee for this honor.

Citation for Aparna Higgins' Work on Project NExT

The Board of Governors of the Mathematical Association of America recognizes Aparna Higgins for her enthusiastic and dedicated leadership of Project NExT as its director from 2009 to 2014 and as co-director from 1998 to 2009. Aparna's passion, vision, unparalleled energy, and attention to detail were keys to the flawless, exciting program that she led each year. She is a wonderful colleague who has the ability to encourage and inspire others to excellence in service, teaching, and research. Aparna's first involvement with Project NExT was at the workshop and MathFest in summer 1995 when she ran a four-hour session about guiding undergraduate research projects. It was so well received that she has repeated it every year since; thus the 2014 Project NExT Fellows are the twentieth group of Fellows with whom Aparna has worked. The exuberant presence of Aparna Higgins has provided strength and energy for Project NExT, an MAA program that is recognized as one of the most successful programs in academic professional development.

Aparna Higgins at MathFest 2014 — other photos available at https://www.flickr.com/photos/maaorg/sets/72157646372473815/

Meeting Registration

Online registration is preferred. Visit the Section web site at **www.maa.org/Ohio** on or after Tuesday, **September 16**, for one-stop registration, banquet reservation, and abstract submission. The deadline for meeting pre-registration and banquet reservations is **October 24**. Abstracts for contributed papers must be submitted by **October 17**.

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. Registration will be held beginning 12:00pm on Friday on the 2nd floor (top of the stairs) of the David L. Hobson Atrium of the Barbara Deer Kuss Science Center and will continue Saturday morning at 8:00am.

Meeting participants who are unable to register online at **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 ($30 ordinary registration, $15 retired or part-time, no fee for students or first-time attendees), banquet fee ($25 per person)] to: Ohio Section MAA Fall Meeting, c/o Brian Shelburne, Wittenberg University, Dept. of Mathematics and Computer Science, Post Office Box 720, Springfield, OH 45501, Phone: (937) 327-7862. Registration by mail will be pending receipt of registration fees.

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. 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. Contributors should send a title and brief abstract by **Friday October 17, 2014**.

Online submission at **www.maa.org/Ohio** with your meeting registration is strongly preferred, but if necessary you may submit your title and abstract to the chair of the Program Committee, Matthew Menzel, by e-mail at matt.menzel@marietta.edu, or by U.S. mail at Matthew Menzel, 215 Fifth Street, Marietta, OH 45750 . 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. Internet access will be provided. Speakers with specific questions about technology availability should contact Brian Shelburne at bshelburne@wittenberg.edu or (937)-327-7862.

Ohio NExT Program Features Bob Devaney

Ohio NExT (New Experiences in Teaching) is a program for new faculty members. Its goal is to help newer faculty 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 30th, preceding the Ohio Section Fall Meeting, members of Ohio NExT will gather for a banquet beginning at 7:00 p.m. at Simply Delicious (1105 N. Plum St.) in Springfield, Ohio. 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.

The next morning, October 31st, the Ohio NExT program will continue on the Wittenberg University campus in room BDK 320. It will feature two workshops, as well as contributed talks by Ohio NExTers. Bob Devaney of Boston University will lead a workshop entitled "Spreadsheets: An Amazing Tool to Enliven and Animate Mathematics" and Lew Ludwig of Denison University will lead the second workshop. At last spring's meeting, the NExT workshop at the University of Toledo featured Michael Dorff of Brigham Young University and Charles Groetsch of The Citadel. Syvillia Averett of Central State University and Paula Federico of Capital 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. Ohio NExT is coordinated by Chris Swanson (cswanson@ashland.edu) and Katie Cerrone (kc24@uakron.edu). Contact Chris for membership information and details.

Lew Ludwig "Reconsidering Hilbert's List With a Pedagogical Twist"

At the International Congress of Mathematicians in Paris in 1900, Hilbert put forth his list of unsolved problems. This profound list spurred much of the mathematical research in the 20th and even the 21st centuries. In his introduction, Hilbert said the following:

"Who among us would not be happy to lift the veil behind which is hidden the future; to gaze at the coming developments of our science and at the secrets of its development in the centuries to come? What will be the ends toward which the spirit of future generations of mathematicians will tend? What methods, what new facts will the new century reveal in the vast and rich field of mathematical thought?"

In that spirit, this presentation will look behind the veil into our future classrooms. Since the time that many of us started teaching, large advances have been made in cognitive psychology to reveal how the brain learns. We will consider this research and how we can use it to our (and our students') advantage in the classroom and beyond. This presentation is intended for anyone who has taught mathematics or has been a student in a mathematics course.

Lew Ludwig is an associate professor of mathematics at Denison University. He earned his PhD in 2001 from Ohio University in point-set topology. He served visiting positions at Miami University and Kenyon College before accepting a position in 2002 at Denison. Dr. Ludwig publishes in point-set topology as well as knot theory. He has given over 75 presentations in 24 states and four continents ranging from his mathematical research to pedagogical techniques. He is particularly interested in undergraduate research and has co-authored papers with four students. Dr. Ludwig is known for his NSF funded website, *Technically Speaking*, that helps students with their oral communication skills. He is a member of the MAA, AMS, CUR, and Project NExT, and has served in a number of positions including section program chair and member of CTUM. He is married with two children.

Adam Parker "Rediscovering Lost Techniques in Ordinary Differential Equations"

The pedagogical value of using primary sources in teaching is well-documented. It leverages mathematics' unique relationship with the past, gives context to mathematical ideas, humanizes the field, and allows us to trace the evolution of mathematical ideas. But it can also lead to "new" mathematics, or at least new to the modern mathematician. This talk will discuss how incorporating primary sources in an ordinary differential equations course leads to rediscovering lost techniques that are certainly novel for students and perhaps you. We will illustrate this with multiple examples including: 1) How mathematicians solved simple separable equations before logarithms were available; 2) that Lagrange and D'Alembert had two, competing, methods for reducing the order of a differential equation; 3) what Cauchy contributed in order to get his name attached to "Cauchy-Euler equations"; and 4) how D'Alembert solved systems of differential equations about 100 years before modern matrix techniques were available.

Adam Parker is an Associate Professor of Mathematics at Wittenberg University in Springfield, OH. He received BS degrees in Mathematics and Psychology from the University of Michigan in 1999, followed by his PhD in Algebraic Geometry from the University of Texas at Austin in 2005 under the guidance of Sean Keel. While still interested in Algebraic Geometry, he is happy to work with students on any project of interest. A sepia dot (2006-2007 fellow) in Project NExT, he has been involved in several parts of the MAA, notably the Ohio Section where he has chaired the Curriculum Committee (CONCUR) and the Program Committee. He's won Excellence in Teaching Awards from both Wittenberg's Omicron Delta Kappa Society and the Southwestern Ohio Council for Higher Education (SOCHE). Adam teaches a wide range of courses and often incorporates primary sources in his teaching. He recently won the 2014 Pólya award for a paper that evolved from using original sources in an ODE course. For spare time, he enjoys sports, cooking, repairing old watches and spending time with his wife, Bernadette.

Robert L. Devaney

"Chaos Games and Fractal Images "

In this lecture we will describe some of the beautiful images that arise from the "Chaos Game." We will show how the simple steps of this game produce, when iterated millions of times, the intricate images known as fractals. We will describe some of the applications of this technique used in data compression as well as in Hollywood. We will also challenge students present to "Beat the Professor" at the chaos game and maybe win his computer.

"The Fractal Geometry of the Mandelbrot Set"

In this lecture we describe several folk theorems concerning the Mandelbrot set. While this set is extremely complicated from a geometric point of view, we will show that, as long as you know how to add and how to count, you can understand this geometry completely. We will encounter many famous mathematical objects in the Mandelbrot set, like the Farey tree and the Fibonacci sequence. And we will find many soon-to-be-famous objects as well, like the "Devaney" sequence. There might even be a joke or two in the talk.

A native of Methuen, Massachusetts, **Robert L. Devaney** is currently Professor of Mathematics at Boston University. His undergraduate degree is from the College of the Holy Cross in 1969 and his PhD is from the University of California at Berkeley in 1973 under the direction of Stephen Smale. He taught at Northwestern University and Tufts University before coming to Boston University in 1980. His main area of research is dynamical systems, primarily complex analytic dynamics, but also including more general ideas about chaotic dynamical systems. He has authored over one hundred research papers in the field of dynamical systems as well as a dozen pedagogical papers in this area. He is also the editor or (co)-author of fourteen books in this field. Currently he serves as the President of the Mathematical Association of America.

Professor Devaney has delivered over 1,500 invited lectures on dynamical systems and related topics in all 50 states and in over 35 countries on six continents. Like the cartoon character Dilbert, he has an artistic side: he collects a coffee mug from each College or University at which he speaks. His many awards include the Award for Distinguished University Teaching from the Northeastern section of the Mathematical Association of America and the Deborah and Franklin Tepper Haimo Award for Distinguished University Teaching. He also was named a Fellow of the American Mathematical Society.

Workshop On Teaching from Primary Historical Sources in the Mathematics Classroom

As has been customary in recent years, the Ohio Section is sponsoring a workshop Saturday afternoon after the Fall Meeting. The cost is $25. This year, Danny Otero and Adam Parker will lead a workshop on using primary historical courses in teaching mathematics. The description of this opportunity follows.

"Recent years have seen an increased interest in using the history of mathematics to enliven and deepen the experience for students of the subject in all areas, from introductory levels (e.g., precalculus, general education courses) through upper level major courses. One way to accomplish this is to use primary historical sources as a means of teaching, reinforcing, or assessing mathematical content. Imagine, for instance, introducing students to calculus with the contentious correspondence between Newton and Leibniz through the letters each exchanged with Henry Oldenburg; such an approach can go a long way to humanizing the subject, providing motivation for fundamental ideas, and building context for extending knowledge and making connections between mathematics and other subject areas."

"Participants in this workshop will be led through two classroom modules in which primary historical texts are used to introduce mathematical topics: Pascal on his triangle of binomial coefficients, used to present the Binomial Theorem; and brief selections from the writings of Euler, Cauchy, and Bolzano on the slow struggle to pin down and formalize a useful analytic definition of continuity for functions. Techniques for locating resources and designing curriculum, together with tips for avoiding common problems, will be explored."

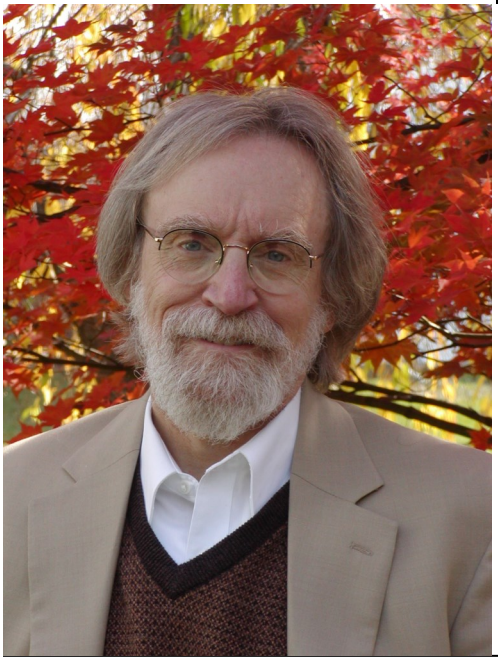
Danny Otero just celebrated his 25th anniversary as a

(Continued on page 12)

William Dunham "Two (More) Morsels From Euler"

Leonhard Euler (1707 – 1783) is responsible for a stunning array of famous theorems, formulas, and concepts. In this talk we examine a pair of lesser-known results where his genius was on full display.

The first is a curious problem from number theory. Euler sought four different whole numbers, the sum of any pair of which is a perfect square.



With characteristic ingenuity, he came up with this fearsome foursome: 18530, 38114, 45986, and 65570. We'll look over his shoulder to see how he did it.

Moving from number theory to analysis, we consider the series of reciprocals of squares – i.e., 1 + 1/4 + 1/9 + 1/16 + …
Through his career, Euler gave (at least) three different proofs that this sums to $\pi^2/6$. Here we present the argument from his 1755 text on differential calculus. The amazing thing about this derivation is that he used l'Hospital's rule … not once nor twice, but *thrice*!

These two results, which require only elementary mathematics, are reminders of why Euler is justly considered "the master of us all."

William Dunham is a historian of mathematics who has written four books on the subject: *Journey Through Genius, The Mathematical Universe, Euler: The Master of Us All,* and *The Calculus Gallery.* He is also featured in the Teaching Company's DVD course, "Great Thinkers, Great Theorems."

Last December, Dunham retired after 22 years as the Koehler Professor of Mathematics at Muhlenberg College. In the Fall of 2008 and again the Spring of 2013, Dunham was a visiting professor at Harvard University, where he taught a course on the mathematics of Leonhard Euler, and he held a visiting appointment at Princeton University in the Spring of 2014.

Presently he is a visitor at the University of Pennsylvania and serves as the MAA's George Pólya Lecturer.

Friday Evening Banquet

The banquet on Friday evening of the Fall Section meeting will be held in 105 Shouvlin located at the south-east corner of Wittenberg's campus. The cost of the buffet meal is $25 per person.

Lemon Parmesan Chicken with White Wine Sauce
Baked Pasta with Seasonal Vegetables
Garlic Mashed Potatoes
Fresh Roasted Vegetable Medley
Red Velvet Cake & Apple Crisp
Coffee and Ice Tea

Reserve your banquet ticket when you register for the meeting online at www.maa.org/Ohio. Those who wait to register on site are not guaranteed banquet tickets.

Fall Workshop

(Continued from page 11)

faculty member at Xavier University. He was elected Chair of the History of Mathematics SIGMAA in 2012, and is the 2014-2015 President-Elect of the MAA Ohio Section and its Archivist as well. With Daniel J. Curtin (Northern Kentucky University), he organizes the ORESME Reading Group, a seminar that meets twice a year in the Cincinnati area to read and enjoy important mathematical texts from the past.

Adam Parker is an Associate Professor of Mathematics at Wittenberg University. After attending the 2008 Ohio MAA Short Course "Study The Masters" run by Danny Otero and David Pengelley at Xavier, he became very interested in using primary sources in his teaching. This has resulted in multiple presentations and publications for both himself and his students. Adam recently won the 2014 Pólya award for a paper that evolved from using original sources in an ODE course.

A box lunch is included in the workshop. Choices are: Turkey and Cheddar, Roast Beef and Cheddar, Ham and Swiss, and Roasted Club Vegetable. Lunch includes fresh fruit, chips, cookies and bottled water or canned soda.

Campus News

At **Ashland University**, **Iyad Ajwa**, Professor of Computer Science, has been selected as the Chair of the Department of Mathematics and Computer Science, replacing **Darren Wick** who served as chair for the last 7 years.

The Department of Mathematics and Computer Science of **Denison University** is happy to announce that **David White** will join the department in the Fall of 2014 as an assistant professor. David completed his doctorate this past spring at Wesleyan University in Connecticut, and spent the summer at Macquarie University in Sydney conducting research jointly funded by the NSF and the Australian Academy of Science. David's research is primarily focused on homotopy theory, especially on model categories, localization, and operads. David also holds a master's degree in computer science from Wesleyan and a bachelor's degree from Bowdoin College. He will be teaching both mathematics and computer science at Denison, and is very excited to continue working in a liberal arts setting.

The Department of Science, Technology, and Mathematics at **Franklin University** welcomed **Dr. Nimet Alpay** in July 2013 and **Dr. Ladorian Latin** in January 2014. Dr. Alpay serves as the Lead Faculty for Statistics and Mathematics. She holds a PhD in Mathematics from Michigan State University and two BS degrees from Middle East Technical University; one in Mathematics and one in Mathematics Education. Dr. Latin serves as Lead Faculty for Mathematics, Algebra, and Calculus. She earned a B.S. in Mathematics from Northwestern State University and continued her education at Louisiana State University where she earned an MS and PhD in Mathematics.

Drs. Alpay and Latin have been working to implement the recommendations of the Ohio Board of Regents' Mathematics Initiative to design a new Math Literacy course that will serve as the prerequisite to college level Statistics. With this new course, the majority of non-STEM majoring students at Franklin University will be able to complete a more appropriate mathematics pathway for fulfilling their mathematics requirements.

The Department of Mathematics and Computer Science at **John Carroll University** bids farewell to **Carl Spitznagel** and **David Stenson**, who retired at the end of the Spring semester of 2014. The department also welcomes two new faculty members in visiting appointments. **Christopher Lin** earned his PhD at the University of California-Irvine in Differential Geometry in 2006. His most recent faculty appointment was at Case Western Reserve University. **Joseph Consiglio** earned his PhD in Statistics at SUNY-Buffalo in earlier this year.

There have been many personnel changes at **Marshall University**. **Judith Silver** has won this year's university-wide Marshall and Shirley Reynolds Outstanding Teacher Award, the department's sixth winner. **Dr. JiYoon Jung** accepted the tenure-track position of Assistant Professor, to replace Dr. Judith Silver, who retired at the end of Spring 2014. Dr. Jung requested to spend the academic year 2014/2015 at the National Institute for Mathematical Sciences (NIMS) in South Korea. Dr. Jung is expected to return to Marshall in Fall 2015. **Anna Mummert** has been awarded tenure and has been promoted to the rank of associate professor. **Dr. Andrea Duhon** has been appointed to a one-year position. She comes from Valencia College in Winter Park, Florida. **Dr. Michael Otunuga** and **Dr. Raid Al-Aqtash** have accepted term positions in the department.

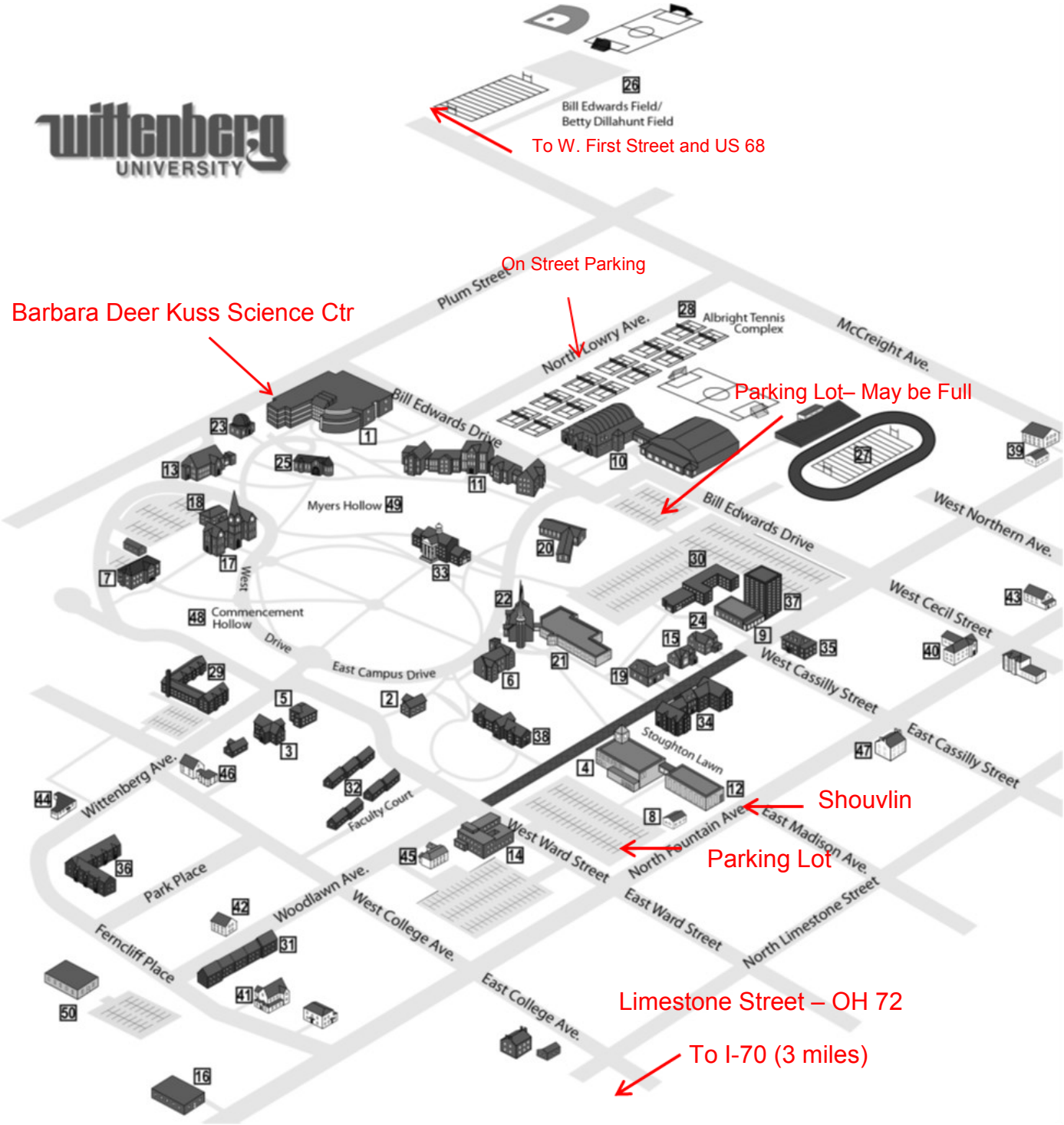
At **Ohio Northern University**, **Mihai Caragiu** is serving as department chair beginning Fall 2014.

Otterbein University congratulates **Dr. Adriana Nenciu**, who earned tenure and promotion to Associate Professor effective this fall, and **Dr. Jeremy Moore**, who moves from a visiting position to tenure-track. Also, we welcome new colleague **Dr. Andrew Nicol.** Dr. Nicol joins us as Visiting Assistant Professor, having recently completed his PhD at The Ohio State University. He holds a Master's degree from Ohio State and a Bachelor's from the College of Wooster. His expertise is in geometric group theory, specifically studying high dimensional graph manifolds.

At **Sinclair Community College, David Hare** and **Glen Lobo** were promoted to Professor effective Fall 2014. **David Ericson** and **Kinga Oliver** were promoted to Associate Professor effective Fall 2014. **Wendy Cheng** and **Olga Stephens** were appointed as Assistant Professors and **Valerie Cope** joined the department as an Assistant Professor effective Fall 2014. **Roger Abernathy** and **Lyn Keeler** retired at the end of 2013-14.

The Department of Mathematics at the **University of Dayton** is happy to announce that **Wiebke Diestelkamp** has been promoted to Professor and **Maher Qumsiyeh** has been tenured and promoted to Associate Professor. **Muhammad Usman** is on sabbatical leave this fall. The department welcomes **Jonathan Brown** as an Assistant Professor. Jonathan earned a PhD in algebra

(Continued on page 14)



Campus News

(Continued from page 13)

from Dartmouth College, and he held positions at Ben Gurion University of the Negev in Israel, the University of Otago in New Zealand, and Kansas State University before coming to the University of Dayton.

The Department of Math and Computer Science of **Wittenberg University** welcomes **Alyssa Armstrong** and **Rebecca Winarski** as Visiting Assistant Professors of Mathematics. Alyssa's PhD from North Carolina State University is in combinatorial Lie algebra representation theory and Rebecca's PhD from Georgia Institute of Technology is in low dimensional topology and geometric group theory. Both Alyssa and Rebecca were selected as 2014-15 National Project NExT Fellows. Also joining the department as Visiting Assistant Professor of Computer Science is **Thomas Bitterman** who earned his PhD from Louisiana State Univ. **Al Stickney** retired from Wittenberg in May 2014. The Department thanks Al for his many contributions through

(Continued on page 15)

Fall Meeting Program

Friday, October 31

11:30-12:00	Nominating Committee	BDK 327
12:00-4:00	Registration	BDK Atrium (2nd Floor)
12:00-1:00	Committee Meetings:	
	CENTENNIAL COMMITTEE	BDK 320
	CONCUR (Curriculum)	BDK 327
	CONSACT (Section Activities)	BDK 351
	CONTEAL (Teacher Education & Licensure)	BDK 141
1:00-4:00	Vendor & Book Exhibits	BDK 370
1:15-1:30	Welcome and Announcements	Bayley Auditorium
1:30-2:30	Distinguished Teaching Award Presentation: **"Reconsidering Hilbert's List With a Pedagogical Twist"**	Bayley Auditorium
2:30-2:55	Break	BDK 370
2:55-3:00	Centennial Minute	Bayley Auditorium
3:00-4:00	Invited Address: **"Rediscovering Lost Techniques in Ordinary Differential Equations"** Adam Parker	Bayley Auditorium
4:10-5:10	Executive Committee Meeting (Part 1)	BDK 320
4:15-5:50	Contributed Paper Sessions	BDK 260, 262, 141
5:55-6:20	Discussion on Section Meeting Attendance and Participation (Part 1)	BDK 260, 262, 141
6:30-6:45	Social Time	Shouvlin Atrium
6:50-8:00	Banquet	105 Shouvlin
8:15-9:15	After dinner talk: **"Chaos Games and Fractal Images"** Robert Devaney	Bayley Auditorium

Saturday, November 1

8:00-10:00	Registration	BDK Atrium (2nd Floor)
8:00-10:00	Book Vendors and Exhibits	BDK 370
8:00-9:25	Coffee and Pastries	BDK 370
8:15-9:15	Executive Committee Meeting (Part 2)	BDK 320
8:50-9:25	Committee On Local Arrangements	BDK 351
9:25-9:35	Welcome and Announcements	Bayley Auditorium
9:35-10:35	Invited Address: **"The Fractal Geometry of the Mandelbrot Set"** Robert Devaney	Bayley Auditorium
10:35-11:00	Discussion on Section Meeting Attendance and Participation (Part 2)	Bayley Auditorium
11:00-11:15	Break	BDK 370
11:15-11:50	Contributed Paper Session	BDK 260, 262, 141
12:00-1:00	Invited Address: **"Two (More) Morsels from Euler"** William Dunham	Bayley Auditorium
1:00-1:10	Closing Remarks	Bayley Auditorium

Event locations are subject to change. Check the official program you receive when you register for the meeting in the Barbara Deer Kuss Science Center Atrium.

Campus News

(Continued from page 14)

the years and wishes him well. Al has served the Ohio Section in numerous capacities, most notably his terms as Section President and Section Governor. **Brian Shelburne** was promoted to full professor effective Fall 2014.

The Department of Mathematics and Statistics at **Youngstown State University** is pleased to welcome three new assistant professors: **Lucy Kerns** (Statistics), **Thomas Madsen** (Algebra / Representation Theory), and **Nguyet "Moon" Nguyen** (Financial Mathematics).

Hotel Information

There are a number of hotels with varying prices in Springfield, 10 of which are listed below. Of the 10 listed, arrangements have been made for blocks of rooms with a special conference rate at the first four. Currently the tax rate is 16.5% (7.25% State, 6% Local and 3% Tourism)

Courtyard by Marriot is in downtown Springfield, about a mile from campus. The next two, Country Inn & Suites and Fairfield Inn are on W. First Street as you come into Springfield from the west on US 68. They are about 1.5 miles from campus. The remaining hotels are on Leffel Lane which is off exit 54 of I-70 (Ohio 72 – Limestone Street) south of Springfield. They are about 3 miles from campus.

1. Courtyard by Marriott
   100 S. Fountain Avenue
   Springfield, OH 45502
   937-322-3600
   downtown Springfield - 1 mile from campus

   Conference Rate: $105.00 plus tax
   Key Word: Wittenberg Ohio MAA Fall Conference
   Reservations for conference rate needed by Sunday October 5

2. Country Inn & Suites
   1751 W. First Street
   Springfield, OH 45501
   1.5 miles from campus
   937-322-2200

   Conference Rate: $89.00 plus tax
   Key Word: Wittenberg MAA Conference
   Reservations for conference rate must be made
   by Tuesday September 30

3. Fairfield Inn
   1870 W. First Street
   Springfield OH 45501
   1.5 miles from campus
   937-323-9554

   Conference Rate $89.99 plus tax
   Key Word: Wittenberg MAA Math Conference
   Reservations for conference rate must be made
   by Tuesday September 30

4. Red Roof Inn
   155. W. Leffel Lane
   Springfield OH 45506
   3 miles from campus
   937-325-5356

   Conference Rate: $64.99 plus tax
   Key Word: Wittenberg MAA Math Conference
   Reservations for conference rate needed by Friday October 17

Arrangements for a special conference rate have **not** been made for the following 6 hotels. It is suggested that you search on line for their rates. All are on or near Leffel Lane off exit 54 (State 72 – Limestone Street) of I-70, about 3 miles from campus.

5. Comfort Suites
   121 Raydo Circle
   (off Leffel Lane)
   937-322-0707

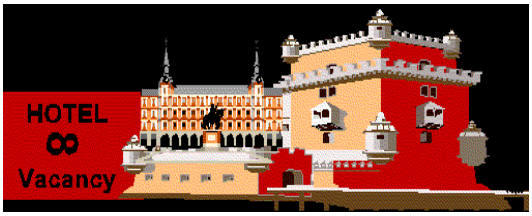
6. Hampton Inn Springfield
   101 W. Leffel Lane
   937-325-8480

7. Quality Inn and Conference Center
   383 E. Leffel Lane
   937-323-8631

8. Ramada Limited Springfield
   319 E. Leffel Lane
   937-328-0123

9. Motel 6 Springfield
   11 W. Leffel Lane
   937-322-4942

10. Super 8 Springfield
    2 W. Leffel Lane
    937-324-5501



Hotel Infinity : http://www.c3.lanl.gov/mega-math/workbk/infinity/inhotel.html

Meeting Locations on Wittenberg's Campus

The Fall Meeting of the Ohio Section of the MAA will be held in the Barbara Deer Kuss Science Center located at the north-west corner of Wittenberg's campus (corner of S. Plum and Bill Edwards Drive). The Registration Desk will be at the top of the stairs (2nd floor) overlooking the 1st floor David L. Hobson Atrium; you can't miss it. If you need to grab a quick bite to eat before the meeting, SODEXO's *Simply To Go Express* is also located in the Hobson Atrium. Bayley Auditorium where the invited talks will be presented is on the 1st floor directly off the Hobson Atrium. Book tables are located and breaks will talk place on the 3rd floor outside Room 370 overlooking the Hobson Atrium. The Banquet will held in 105 Shouvlin located at the south-east corner of Wittenberg's campus (a 5 minute walk).

Driving Information

Springfield is located just north of I-70 between Columbus and Dayton. There are two easy routes to Wittenberg coming from the east or west on I-70.

1. Take Exit 54 – Ohio 72 S. Limestone Street (Leffel Lane, where many of the hotels are, is the first light). Go north about 3 miles through downtown Springfield over Buck Creek to McCreight Avenue (Walgreens on your right, Speedway on your left). Take a left (going west) on McCreight. Turn left at the 2nd light (Burger King on the left) onto S. Plum. The Barbara Deer Kuss Science Building is on the corner of S. Plum and Bill Edwards Drive. Turn left onto Bill Edwards and park anywhere.

2. A somewhat quicker approach is to take Exit 52 – US 68 N. (towards Urbana) which is approximately 2 miles west of Exit 54. Go north for about 3 miles taking the 2nd Exit Ohio 41. Turn right (east) at the light as you exit US 68. This is Troy Road which merges into W. First Street. At the 3rd light there is a T-intersection. Turn right onto St. Paris Pike which bends to the left becoming McCreight Avenue. At the first light (Burger King on your right) turn right (south) onto S. Plum. The Barbara Deer Kuss Science Building is on the corner of S. Plum and Bill Edwards Drive. Turn left onto Bill Edwards and park anywhere.

Parking Near or on Campus

There are a few small parking lots on the north-west quadrant of the campus where the Science Building is located which visitors can use if they can find an open space. Campus Security will be advised not to ticket visitors. Best bet is on-street parking along N. Lowry which is perpendicular to Bill Edwards (first left off of Bill Edwards). Saturday parking will be no problem.

An additional visitor parking lot is on the corner of W. Ward and N. Fountain (south-east corner of the campus) next to the Benham-Pence Student Center and the Joseph C. Shouvlin Center. Enter from W. Ward street.

See the campus map on page 14 for more details.

President's Message

(Continued from page 2)

Section is the oldest Section of the MAA (full disclosure: there is some dispute about this, and I am biased). The first meeting of the Ohio Section was April 21-22, 1916, and the first meeting of the National MAA was held in Columbus the previous year. If you want to read more about our history, I strongly recommend that you look at our website which contains a plethora of information. One current project is to collect departmental histories of the Section's Math departments. To help with this effort, contact Al Stickney at astickney@wittenberg.edu. I want to thank David Kullman, who chairs the Centennial Committee, and his entire committee for their tireless efforts to preserve and celebrate our Section's history.

Another bit of good news is that you can now pay your meeting registration fees by credit card. If you pre-register, you will no longer have to remember to bring your checkbook to the meeting. Of course, you will still be able to register at the meetings. If you do, we will still need cash or a check, but I suspect many of us will take advantage of the credit card option. Jay Kerns has put a lot of effort working out the technological issues and making this possible. He has our sincere appreciation.

Finally, I want to express my gratitude to all of you for allowing me to serve as President this year, and I look forward to seeing many of you in the fall.

John Prather
Ohio University's Eastern Campus
President of the Ohio Section of the MAA
prather@ohio.edu

Coming Up in Ohio

Miami University 42nd Annual Conference
This year's topic is "Optimization." The conference will be held on the Miami University campus on **September 19 -20, 2014**. Details are available at http://cas.miamioh.edu/math/conference.

University of Dayton
The Department of Mathematics will host its 26th Biennial Alumni Seminar on Saturday, October 25, 2014. Alums of the department will return to campus to talk about careers in mathematics with interested students. More information about the Alumni Seminar will be available at http://academic.udayton.edu/MathEvents/.

OCTM Annual Conference
The Ohio Council of Teachers of Mathematics is holding their annual conference on **November 5-7, 2014**, in Cleveland, Ohio. See http://www.ohioctm.org/conferences/64th-annual-conference-cleveland for details.

Ohio Section MAA Spring Meeting
The Ohio Section of the Mathematical Association of America will hold its annual Spring meeting on **March 27-28, 2014**, at Marshall University. The invited speakers for that meeting are: Annalisa Crannell from Franklin and Marshall (two talks), Carl Lee from the University of Kentucky, John Prather from Ohio University—Eastern, and Bonita Lawrence from Marshall. More details, including submission information for contributed talks from faculty and students, will be forthcoming in the Spring edition of this newsletter and also on the Ohio Section web site, **www.maa.org/Ohio**.

Discussion on Section Membership and Participation

Recently the Executive Committee began exploring the question, "How can the section foster departments that value the MAA?" It was suggested that we could devote time at the Fall meeting for a forum to discuss this issue with the whole membership. What do people find valuable? Why do they keep coming to conferences? What changes and additions could be made to better serve our members and to increase attendance and participation at section meetings?

The trend toward decreasing membership and attendance at meetings like ours is being felt much more widely throughout our culture. The exceptions are usually the result of strongly focused efforts on the part of an organization. Hopefully the Ohio Section can become one of the success stories as we draw near to our centennial. The opening session is scheduled at 5:55 on Friday evening and the follow-up session is on Saturday morning at 11:15.The discussion sessions at the Fall meeting will provide a first step in addressing the issue, so please come with ideas.

"Some infinities are bigger than other infinities."
— John Green, *The Fault in Our Stars*

Student Competition Results From Spring Meeting

The eleventh annual Leo Schneider Student Team Competition was held at the University of Toledo on Friday, April 4, 2014. Fifty-one students registered, forming eighteen teams and representing eight institutions: Baldwin Wallace University, Capital University, Case Western Reserve University, Cleveland State University, Malone University, University of Findlay, Wittenberg University, and Youngstown State University. The following teams placed in the competition:
First Place ($150): Case Western Reserve University – Todd Norton, Andy O'Desky, and Andres Rosales.
Second Place ($120): Case Western Reserve University – Jonathan Dorsey, Sander Mack-Crane, and Anthony Gatti.
Third Place ($90): Baldwin Wallace University – Bradley Sevcik, Samuel Vanni, and Samuel Schwab.
A sudoku tournament and pizza party were held during the evening of that same day.

The twelfth annual competition will take place March 27, 2015, at Marshall University. For more information regarding the competition, check out the CONSTUM website: http://www.constum.ohiomaa.org/.

2014-2015 Ohio Section Officers and Committees

ELECTED OFFICERS

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

Past-President
Phil Blau, Shawnee State University
740-351-3443; pblau@shawnee.edu

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

Section Governor
Barbara D'Ambrosia, John Carroll Univ.
216-397-4682; bdambrosia@jcu.edu

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

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

OTHER OFFICERS

Department Liaisons Coordinator
Chris O'Connor, Shawnee State Univ
740- 351-3309; coconnor@shawnee.edu

Webmaster
Darren Wick, Ashland University
419-289-5795; dwick@ashland.edu

On-line Registration
G. Jay Kerns, Youngstown State University
330-941-3310; gkerns@ysu.edu

Newsletter Editor
David Stuckey, Defiance College
419-783-2464; dstuckey@defiance.edu

Ohio Project NExT Co-Coordinators
Katie Cerrone Arnold, University of Akron
330-927-8809; kc24@uakron.edu
Chris Swanson, Ashland University
419-289-5264; cswanson@ashland.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

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.

Program Committee
*Matthew Menzel, Marietta College, (2015)
Bill Fuller, Ohio Northern U. (2016)
Laurie Dunlap, University of Akron (2017)

CONTEAL
*Aaron Blodgett, Univ of Findlay (2017)
Pam Warton, University of Findlay (2015)
Jenny McKinney, Shawnee State U. (2016)
Sandy Schroeder, Ohio Northern U. (2016)
Najit Baji, Sinclair Comm College (2017)
Laurie Dunlap, University of Akron (2017)
Susan Thompson, Otterbein University (2017)

CONSTUM
*Ryan Rahrig, Ohio Northern Univ (2016)
Thomas Wakefield, Youngstown St. U. (2015)
erica Whitaker, Otterbein University (2015)
Melissa Dennison, Baldwin Wallace U. (2016)
Mohammed Zaki, Ohio Northern Univ (2016)
Matthew McMullen, Otterbein Univ (2017)

CONSACT
*Barbara Margolius, Cleveland State U (2015)
Paige Rinker, John Carroll University (2015)
Eric Wingler, Youngstown State Univ. (2015)
Lola Thompson, Oberlin College (2016)
Kathryn Leed, Lorain Cty Comm Coll (2017)
Flavia C Sancier-Barbosa, Wittenberg (2017)

CONCUR
*Chandra Dinavahi, U. of Findlay (2016)
David Cusick, Marshall University (2015)
Giorgi Shonia, Ohio Univ - Lancaster (2015)
Glen Lobo, Sinclair Comm College (2016)
Anne Albert, University of Findlay (2017)
William Fuller, Ohio Northern Univ (2017)

OTHER COMMITTEES

Nominating Committee
* Wiebke Diestelkamp, Univ of Dayton (2017)
Don Hunt, Ohio Northern University (2015)
Jon Stadler, Ashland University (2016)

Teaching Award Committee
* Phil Blau, Shawnee State University (Past President)
Pam Warton, University of Findlay (Secretary),
Lew Ludwig, Denison University (Past recipient 2013)
Harold Putt, Ohio Northern Univ (Past recipient 2014)

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

LOCAL ARRANGEMENTS FOR MEETINGS

Fall 2014: Wittenberg University
Brian Shelburne, bshelburne@wittenberg.edu

Spring 2015: Marshall University
Michael Schroeder,
schroederm@marshall.edu

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

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

"Prime numbers are what is left when you have taken all the patterns away. I think prime numbers are like life. They are very logical but you could never work out the rules, even if you spent all your time thinking about them."
— Mark Haddon, *The Curious Incident of the Dog in the Night-Time*

Calendar

Ohio Section

Spring 2015 Section Meeting, March 27-28, Marshall University, Huntington, WV

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

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

Fall 2016 Section Meeting, College of Wooster, Wooster, OH

National MAA-AMS

Annual Joint Meetings, January 10-13, 2015, San Antonio, TX

MathFest, August 5-8, 2015, Washington, D.C.

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

Other

Western Kentucky University 34th Annual Mathematics Symposium, October 10 - 11, 2014, Bowling Green, KY http://www.wku.edu/math/symposium2014.php

Indiana Section MAA Meeting, October 18, 2014, Trine University, Angola, IN

Miami University 42nd Annual Conference, September 19-20, 2014, Miami University, Oxford, OH http://cas.miamioh.edu/math/conference

NCTM Regional Conference, October 29 - 31, 2014, Indianapolis, IN http://www.nctm.org/meetings/

OCTM Annual Conference, November 5-7, 2014, Cleveland, OH http://www.ohioctm.org/index.html

AMATYC Annual Conference, November 13-16, 2014, Nashville, TN https://amatyc.site-ym.com/?page=2014ConfHome

T3 International Conference, March 13-15, 2015, San Antonio, TX http://education.ti.com/en/us/professional-development/pd_international_conference_highlights

International Conference on Technology in Collegiate Mathematics (ICTCM), March 12-15, 2015, Las Vegas, NV

Kentucky Section MAA Section Meeting, March 27-28, 2015, Morehead University, Morehead, KY

Central Section AMS, Mar 13-15, 2015, Michigan State University, East Lansing, MI

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 postcards are sent using labels provided by the MAA.

Editor: David Stuckey
419-783-2464
dstuckey@defiance.edu
Defiance College
Defiance, OH 43512

The deadline for the next newsletter is **February 6, 2015**. E-mail copy is preferred. Early submission is appreciated. Please send copy to the editor (see left), and also to the Section Webmaster, Darren Wick, for posting on the web (dwick@ashland.edu).

Thank You
to the many people who contributed articles and information for this newsletter.
David Stuckey, Editor