

The MAA Ohio Section Newsletter

Volume 10

Spring 2013

Number 2

# Spring Meeting at Denison University April 5 - 6, 2013

The Spring Meeting of the Ohio Section MAA will be held on April 5 - 6, at Denison University in Granville, Ohio. Registration, student team competition and committee meetings begin at noon on Friday, with the first invited lecture starting at 1:45 p.m. in Herrick Hall. The meeting will conclude on Saturday at Major addresses will be 1:00 p.m. given by Colin Adams (Williams Bob Bosch (Oberlin College), College), Barbara Faires (Westminster College and Secretary of the MAA), and Wiebke Diestelkamp (University of Dayton). In addition, "Pythagoras's Darkest Hour", "The Book", "Lord of the Rings" (and more) will be performed on Friday evening. This stage performance will be presented by Colin Adams of Williams College and the Mobiusbandaid Players. Meeting participants are encouraged to submit talks for the contributed paper sessions on Friday afternoon and Saturday morning. Students, both graduate and undergraduate. in mathematics. mathematics education, or related fields are encouraged to attend.

> Centennial is Coming!



F. W. Olin Science Hall on the campus of Denison University

# **Meeting Registration**

Online registration is preferred. Visit the Section web site at www.maa.org/Ohio on or after Tuesday, February 26, for one-stop registration, banquet reservation, and abstract submission. The deadline for meeting pre-registration and banquet reservations is March 29. Abstracts for contributed papers must be submitted by March 22.

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 at 12:00 pm on Friday at Herrick Hall and will continue Saturday morning at 8:00 am.

# **Section Governor's Report**

As I write this, the Joint Mathematics Meetings are just getting underway. Once again, the program has a wide variety of talks and activities. Add in the planned and unplanned encounters with friends from across the country, and it promises to be an exciting and vibrant few days.

At the Board of Governors meeting, we again had a serious discussion of the MAA budget. As I mentioned in my last Governor's Report, the MAA has been operating with deficit budgets for the last several years. The 2013 budget approved by the Board has a larger deficit than we've seen in recent years, because we've committed to making some investments that should either save money or increase revenue in the years ahead. Among those measures are the plans to move the customer service function in house. If that move is realized, it should save about \$200,000 annually.

The MAA book program is a cornerstone of the Association. To increase revenue and further strengthen this already strong program, the Association has hired a part-time acquisitions editor who will officially start in August of this year. Although the books program will continue to rely heavily on volunteer effort, the acquisitions editor will be able to identify more potential books and shepherd them through the publishing process more quickly than has perhaps been the case in the past.

Every January, the Board approves the dues structure for the next year. Expect to see some significant changes in the membership categories in 2014. The MAA currently has over 300 different member types; this will be reduced to just five: regular member, member at some higher level (title to be determined), student, K-12 teacher, and department. Later this year, you will receive information about member benefits for each category, as well as dues and possible discounts for each. This reduction in membership types will greatly simplify administrative tasks and allow us to track and serve members better.

The work of the MAA is largely done by volunteers. If you are interested in serving the Association on a national committee or council, please contact me. You can read a complete list of committees by following the links at http://www.maa.org/EBUSPPRO/committee/ committee-list.aspx.



Another way you can help strengthen the MAA is to talk with vour colleagues. especially those at the early stages of their careers, about benefits the of MAA membership. As a member, you not only get access to the high quality MAA journals, but also discounts on meeting registration and books from the MAA store. Equally

important, your membership supports a wide variety of programs and projects, from Project NExT to undergraduate research to outreach to high school students to input in national science policy to ... . So remember to renew your membership and invite your colleagues to do the same.

The MAA administers a number of grants for a variety of programs. You can see a list of these, along with their application deadlines, at <a href="http://www.maa.org/subpage\_8.html">http://www.maa.org/subpage\_8.html</a>.

Every five years, the Ohio Section has the opportunity to nominate a member for the Certificate of Meritorious Service. This coming spring, the Executive Committee will select our nominee for the 2014 award, to be presented at the 2014 Joint Mathematics Meetings. Look for the call for nominations elsewhere in this newsletter.

The MAA presents a wide variety of other awards each year. You can see a list of these awards, along with past recipients and nominating instructions, at http://www.maa.org/awards/.

The MAA website redesign is well underway and on target for going live in April of this year.

Finally, I want to acknowledge the recent passing of Doug Faires. Doug was a strong presence in the Ohio Section for many years. He held many leadership positions in the Section, but I will remember him most for his passion for undergraduate research and the involvement of undergraduates in Section activities, which continues to resonate through the Ohio Section today.

> Barbara D'Ambrosia John Carroll University Section Governor

# **President's Message**

Those of you who attended the fall meeting at Baldwin Wallace University will agree that it was a great success. Matt Neal, Tommy Ratliff, Erica Flapan and David Meel all gave lively and interesting presentations, and the eighteen contributed talks were of high quality as well. We owe great thanks to the Program Committee for putting together such a good program. CONCUR's presentation on how members of the Ohio Section teach calculus also provided much interesting



information. And when you see David Calvis, you should congratulate him on a flawlessly executed meeting in Baldwin Wallace's Center for Innovation and Growth.

CONSACT is reporting that the workshop presented by Barbara Margolius and Felipe Martins on WeBWorK was very well received. We will continue to offer workshops on various topics after the conclusion of the fall meetings. A preview of the planned workshop for next fall is included in this newsletter. If you have suggestions for workshop topics, please contact the chair of CONSACT.

I am looking forward to the upcoming meeting at Denison University. The program looks very good, and I look forward to seeing you and your students there. At the end of the meeting, I will turn over the president's gavel to Phil Blau. I have enjoyed the opportunity to serve the Section as president, and I thank you for putting your trust in me. I have learned a great deal about the workings of the Section and the MAA, and I want to thank everyone who helped me understand my job better. I especially want to thank all of you who volunteered to serve a three-year term on a Section committee; the Section could not function without you.

At this meeting, we will implement the MAA's new Section book sales program. As has been the tradition, you can buy MAA books at the Section meeting for a substantial discount. Starting at the spring meeting, you (and everyone else) will be able to take advantage of the discount for online purchases during a two-week period starting one week before the Section meeting. Of course, you will still have the opportunity to buy books at the Section meeting itself. More information can be found elsewhere in this newsletter and on the Ohio Section website.

You are encouraged to attend the Business Meeting on Friday evening. We will elect new officers and vote on an amendment to the Ohio Section's bylaws. The amendment will officially establish the Teaching Award Committee. Please review the proposed text before the spring meeting and contact me with your questions and comments. If a majority of those present at the Business Meeting votes in favor of the amendment, the

Section will conduct a formal vote in the near future.

This year, the Ohio Section has the opportunity to nominate one of its members for the MAA's Meritorious Service Award. We encourage you to help us identify suitable candidates. A note on the process can be found in this newsletter.

Sadly, you will also find a remembrance of Doug Faires, who passed away in December. Many of you knew Doug, and you know of his many contributions to his students, the Ohio Section, the MAA and Pi Mu Epsilon. He will be greatly missed.

> Wiebke Diestelkamp University of Dayton Ohio Section MAA President

#### **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 Science and Mathematics Division Defiance College Defiance, OH 43512

The deadline for the next newsletter is **August 12**, **2013**. E-mail copy is preferred. Please send copy to the editor (see above), and also to the Section Webmaster, Darren Wick, for posting on the web (dwick@ashland.edu).

# **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 spring Ohio Section meeting. Reports on projects, research announcements, or anything you believe would be of interest to those in attendance are welcome. Undergraduate and graduate students in mathematics or mathematics education are strongly encouraged to submit talks.

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, Adam Parker, by e-mail at aparker@wittenberg.edu, or by U.S. mail at Department of Mathematics and Computer Science, Wittenberg University, P.O. Box 720, Springfield, OH 45501. Abstracts should be between 25 and 75 words in

# New Opportunities for Book Sales at Sectional Meetings

Since members can no longer purchase display copies of books at sectional meetings, only order them, a new ordering option (with a 35% discount) will begin starting at the Denison meeting in April which will make ordering MAA books easier and faster.

Book orders at sectional meetings can now be done online (though members who do not wish to order on-line may still fill out paper orders). A lap-top will be available (or you can use your own) to complete on-line orders. A special code is provided allowing a 35% discount on all orders; the current coupon code is **OHIOSPR3**. This code is valid from **March 31 - April 13, 2013**.

To use the on-line order option, members will log in using either their MAA account or Amazon account information. Since the 35% discount code is valid for a week after the meeting, if you forget your MAA account login, you still have a week to complete your order.

Of course there will be a full selection of display copies available for members to check out before ordering online.

If you have any questions, don't hesitate to contact me at bshelburne@wittenberg.edu.

Brian Shelburne Wittenberg University Treasurer Ohio Section MAA length and should employ proper English grammar and spelling. 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 whiteboard or chalkboard, computer projector, laptop connections and document cameras. Presenters can either plug their laptops into the overhead projection system or plug a flash drive into the resident computer. If internet access is needed, please mark the appropriate box when submitting your abstract online. Speakers with specific questions about technology availability should contact Lew Ludwig, at ludwigl@denison.edu.

Due to time and space restrictions, we may not be able to accommodate all talks. Submit abstracts online at the Section web page: www.maa.org/Ohio, by Friday, March 22.

# **Proposed Amendment to Section Bylaws**

At the business meeting on Friday of the 2013 spring Section meeting, we will discuss the proposed amendment to the Section bylaws whose text is given below. Any modifications to the amendment must be approved by a majority of those present at the meeting. According to the procedures outlined in our bylaws, the amendment will then be voted on via a ballot that will be mailed to all section members after the conclusion of the meeting. If approved, the amendment will appear as item 12 in Article IV in the bylaws. Please direct questions or comments to the Wiebke Diestelkamp, President of the Ohio Section (wiebke@udayton.edu).

#### **Proposed Amendment**

The Teaching Award Committee shall consist of the Past President of The Section, the Secretary of The Section, and the two most recent teaching award recipients who are members of The Section, but not the current teaching award recipient. The President may appoint committee members should any committee member not be available to serve. The Past President shall be the Chair of the Teaching Award Committee. The Teaching Award Committee shall be responsible for soliciting and receiving nominations for the Section Teaching award. Award winners shall be announced at the Annual Meeting and will be invited to speak at the fall meeting of the following calendar year.

# Leo Schneider Student Mathematical Competition

Undergraduate students from institutions of the Ohio section are invited to participate in the third annual Leo Schneider Student Mathematics Competition. This will be the tenth year for the Ohio MAA student team competition, but its name now honors the memory of our late colleague and friend.

This year's competition will take place on Friday from noon until 1:20. Rules and registration information, as well as copies of previous years' problems and their solutions, can be found on the Ohio Section Student Member website, http://constum.ohiomaa.org/. Cash prizes will be awarded on Saturday to the top three teams. We encourage student participation in the entire meeting, including student talks, the student pizza party, and the "awards ceremony" on Saturday. Any questions about the competition or other student activities can be addressed to Ryan Rahrig at r-rahrig@onu.edu.

# **Talks by Students**

Undergraduates and graduate students are encouraged to submit abstracts for 15 minute talks at the Spring Meeting. Topics may be drawn from any area of mathematics or a related discipline. The presentation may be an expository talk, a recounting of a mathematical internship or a co-op experience, or the results of a research project. It is expected that each talk will be delivered by a single speaker. Each student speaker will receive a certificate acknowledging their contribution to the meeting.

Contributed talks by students, faculty, and others will be given on Friday afternoon and Saturday morning. Talks will be scheduled primarily according to topic and audience level. Student talks are an integral part of the meeting and should be an enjoyable and rewarding experience for all who participate.

See the Call for Contributed Papers on page 4 for submission information.

# Try your hand at this problem from the 2012 Leo Schneider Student Mathematics Competition.

Solutions are available at the CONSTUM website, http://constum.ohiomaa.org/.

Problem 3: A bug takes a random walk along the edges of a regular tetrahedron ABCD. Whenever the bug arrives at a vertex, it randomly chooses one of the three edges emanating from the vertex, each with equal probability. It then walks to the other end of its chosen edge. The bug starts at vertex A.

Determine the probability that the bug is back at vertex A after traversing 5 edges.

# **Student Pizza Party**

A student pizza party will be held on Friday evening at 6:30. There is no charge but meeting registration is necessary. See the Section webpage at www.maa.org/ Ohio for online registration. A sudoku tournament will be held during the pizza party for interested students.



# **Resources for Speakers**

Speakers are encouraged to check out these resources that provide tips and strategies for giving good math and science presentations:

•"Technical Speaking," funded by the NSF and hosted by Denison University, at http:// techspeaking.denison.edu/.

• "Advice on Giving a Good Power Point Talk," *Math Horizons* article by Joe Gallian (April 2006), at www.d.umn.edu/~jgallian/goodPPtalk.pdf.

# Sir Randolph Bacon III (cousin-in-law to Colin Adams) "Blown Away: What Knot to Do When Sailing"

**Abstract**: Being a tale of adventure on the high seas involving great risk to the tale teller, and how an understanding of the mathematical theory of knots saved his bacon. No nautical or mathematical background assumed.

Bio: Colin Adams is the Thomas T. Read Professor of Mathematics at Williams College. He received his Ph.D. from the University of Wisconsin-Madison in 1983. He is particularly interested in the mathematical theory of knots, their applications and their connections with hyperbolic geometry. He is the author of "The Knot Book", an elementary introduction to the mathematical theory of knots, "Why Knot?", a mathematical comic book with attached toy and "Riot at the Calc Exam and Other Mathematically Bent Stories". а compendium of humorous math

stories. He is the co-author of the humorous supplements "How to Ace Calculus: The Streetwise Guide" and "How to Ace the Rest of Calculus: the Streetwise Guide" as well as the textbook "Introduction



to Topology: Pure and Applied". He also appears with Thomas Garrity in "The Great Pi/e Debate", "The United States of Mathematics Presidential Debate" and "The Derivative vs. the Integral: The Final

> Smackdown". DVD's of humorous debates on mathematical topics that are available from the Mathematical Association of America. He has written a variety of research articles on knot theory and hyperbolic 3-manifolds. He is a recipient of the Haimo National Distinguished Teaching Award from Mathematical Association of the America(MAA) in 1998, an MAA Polya Lecturer for 1998-2000, a Sigma Xi Distinguished Lecturer for 2000-2002, and the recipient of the Robert Foster Cherry Teaching Award in 2003. He is also the humor columnist for the Mathematical Intelligencer.

**Theater**: Mathematically Bent Theater, by Colin Adams and the Mobiusbandaid Players, including "Pythagoras's Darkest Hour", "The Book" and "Lord of the Rings".



**Abstract**: Optimization is the branch of mathematics concerned with optimal performance---finding the best way to complete a task. It has been put to good use in a great number of diverse disciplines: advertising, agriculture, biology, business, economics, engineering, manufacturing, medicine, telecommunications, and transportation (to name but a few). In this lecture, we will showcase

#### Robert (Bob) Bosch — "Opt Art"

its amazing utility by demonstrating its applicability in the area of visual art, which at first glance would seem to have no use for it whatsoever! We will begin by describing how to use integer programming to construct a portrait out of complete sets of double nine dominoes. We will then describe how high quality solutions to certain large-scale traveling salesman problems can lead to beautiful continuous line drawings. We will conclude by presenting other examples of Opt Art---art constructed with the assistance of mathematical optimization techniques.

**Bio**: Robert (Bob) Bosch is Professor of Mathematics at Oberlin College. He specializes in optimization, the branch of mathematics concerned with optimal performance. Since 2001, Bosch has devoted increasing amounts of time and effort into devising and refining methods for using optimization to create pictures, portraits, and sculpture. He has had pieces commissioned by Colorado College, Western Washington University,

#### Barbara Faires "Stefan Banach and the Scottish Café"

**Abstract**: The Scottish Café, the favored cafe of mathematicians in Lvov, Poland, is now known by many through the notebook of problems produced by those mathematicians. The notebook provides insight



into problems posed as well as life in Poland at that time. I will examine these along with one of the regulars at the cafe, Stefan Banach, who contributed 25 problems to the notebook.

**Bio:** Barbara Faires has been active in MAA since joining the faculty at Westminster College

and beginning the student puzzle session for the Allegheny Mountain Section. She has received the Section's Meritorious Service and Distinguished Teaching Awards and was an initial coordinator of Section NExT.

Barbara joined the MAA Committee on Sections in 1982 and has been on the Executive Committee as Chair of committees: Sections, Audit, Budget, and as First Vice President. She has chaired nominating, awards, and search committees and served on a broad range of MAA committees and strategic planning groups. Her current role is Secretary of the MAA.

Barbara earned her doctorate in mathematics (vector measures and Banach space theory) at Kent State University with adviser Joe Diestel and then studied computer science at Carnegie Mellon University during a sabbatical leave. Her undergraduate degree from East Carolina University is in mathematics and business. She has held visiting positions at Carnegie Mellon and Westminster College, Oxford, UK and taught in the early PA Governor's School for the Sciences. Her publications include papers in Transactions and Proceedings of the AMS. At Westminster she has chaired the Department of Mathematics and Computer Science, served as Vice President for Academic Affairs, and received both the Henderson Lecture and Distinguished Faculty Awards.

# Wiebke Diestelkamp "The Lady Tasting Tea: R. A. Fisher and the Statistical Revolution"

**Abstract:** Ronald Aylmer Fisher (1890 - 1962) made extraordinary contributions to statistical theory and methods, experimental design, scientific inference, evolutionary biology and genetics. He published seven books and several hundred papers in more than 80 different journals. His contributions to mathematical statistics are still relevant today. We will talk about his life, some of his ideas that revolutionized the practice of statistics and his (sometimes contentious) relationships with his contemporaries.

Bio: Wiebke Diestelkamp holds an M.S. and a Ph.D. in Mathematics from the University of Wisconsin -Milwaukee. She is an Associate Professor of Mathematics at the University of Dayton. She has been teaching a broad range of courses, in particular, probability and statistics courses for various undergraduate and graduate student populations. She is involved in interdisciplinary research projects with a number of colleagues in various departments. As a member of the University of Dayton team of the

LEADER Consortium working to improve the recruitment, retention, advancement and climate for women STEM faculty. Wiebke serves as the Equity Advisor for the College of Arts and Sciences. (LEADER is an NSF-ADVANCE funded partnership of AFIT. Central State University, Wright State University and the University of Dayton). In the Ohio Section of the MAA.



Wiebke served as co-coordinator for Ohio NExT (2005 - 2011) and as Liaison Coordinator (2006 - 2011). She is the current President of the Ohio Section.

#### New Award to be Presented at MathFest

The Dolciani Award was approved at JMM 2013 with nominations due this year March 4, 2013. The award recognizes a mathematician for distinguished contribution to the mathematical education of K-16 students. Guidelines for nominations are at the MAA website.

# Spring Meeting Program

Friday, April 5, 2013

Saturday, April 6, 2013

12:00 - 4:00	Registration	Herrick Hall	8:00 – 10:00	Registration	Olin 201
12:00 – 1:20	Student Team Competition	Higley Auditorium	8:00 – 10:00	Book Vendors and Ex- hibits	Samson- Talbot Hall
12:00 – 1:00	Committee Meetings: CONCUR	Olin 215 Olin 220 Olin 221 Olin 222	8:00 - 8:50	Coffee and Pastries	Samson- Talbot Hall
	CONSACT CONTEAL		8:05 – 8:40	Meeting of Department Chairs and Liaisons	Olin 222
1.00 - 1.00	Book Vendors and	Samson-	8:05 – 8:40	Committee on Local Arrangements	Olin 220
1.00 - 4.00	Exhibits	Talbot Hall		Welcome and	
1:30 – 1:45	Announcements	Herrick Hall	8:50 – 9:00	Announcements: Student Team Competi-	Herrick Hall
	Invited Address:			tion Results	
1:45 – 2:45	"Blown Away: What Knot To Do When Sailing" Sir Randolph Bacon III (cousin-in-law to Colin Adams – Williams College)	Herrick Hall	9:00 – 10:00	Invited Address: "Stefan Banach and the Scottish Café" Barbara Faires – Westminster College and Secretary of the MAA	Herrick Hall
2:45 – 3:10	Break	Samson- Talbot Hall	10:00 – 10:20	Break	Samson- Talbot Hall
3:10 – 3:15	Centennial Minute	Herrick Hall	10.25 -	Contributed Pener	Olin 114,
3:15 – 4:15	Invited Address: "Opt Art" Robert (Bob) Bosch –	Herrick Hall	10:25 – 11:40	Session	215, 220, 221, 311, 314
4:25 - 6:20	Oberlin College Contributed Paper Session	Olin 114, 215, 220, 221, 311, 314	11:50 – 12:50	Address: "The Lady Tasting Tea: R. A. Fisher and the Statis- tical Revolution" Wiebke Diestelkamp –	Herrick Hall
4:25 – 6:20	A meeting	Olin 222	42.50	University of Dayton	Horrick Holl
6:30 - 8:00	Student Pizza Party	2 <sup>nd</sup> floor Atri- um – Burton Morgan	Event locations are subject to change. Check the official program you receive when you register for the meeting in Herrick Hall. Also, check the Section web page, www.maa.org/Ohio, for program updates, online registration, and contributed paper submissions.		
6:30 - 6:50	Social Time	Welsh Hills Room			
6:50 - 8:00	Banquet	Welsh Hills Room – Bur- ton Morgan			
8:15 – 9:15	Stage Performance: "Pythagoras's Darkest Hour, The Book, Lord of the Rings (and more)" Colin Adams – Williams College and the Mobiusbandaid Players	Lecture Hall (115) Burton Morgan	Bob Bosch — "Opt Art" (Continued from page 6) Occidental College, Spelman College, and the organiz- ing committees of several academic conferences. He operates a website, www.dominoartwork.com, from which it is possible to download free plans for several of his domino mosaics (including a 44-set portrait of Presi- dent Barack Obama). His sculpture Embrance was awarded first prize at the 2010 Mathematical Art Exhibi- tion in San Francisco.		
9:15	Business Meeting and Presentation of the Teaching Awards	Lecture Hall (115) Burton Morgan			

#### **Driving Directions**

Driving directions to Denison University

The following directions to Denison appear on the University website, which include maps. The street address for Denison is 100 West College Street, Granville, OH 43023.

When coming from the east, west and south, the best approach is from Interstate 70. Granville is 10 miles north of I-70 (Exit 126) on Ohio Route 37 West. When Route 37 turns off on the divided highway outside of Granville, continue straight ahead on Ohio Route 661 into Granville. Route 661 takes you to the center of Granville. At the traffic light, continue north on North Main Street one block to the main campus entrance.

If coming from the north, you should exit Interstate 71 at Bellville and take Ohio Route 13 south into Mt. Vernon. From there, Ohio Route 661 south will bring you the 23 miles to the North Gate entrance of Denison.

Ohio NExT: The Thursday night banquet will be at the Buxton Inn, 313 Broadway Street, Granville, OH. Ask to be directed to the "math meeting" at the front desk. The parking lot for the Inn is to the left of the main building. There is also free parking on the streets.

All large invited addresses and registration will be held in Herrick Hall. The book exhibit and refreshment breaks will be held in Samson Talbot Hall of Biological Science. All parallel session presentations will be held in the F.W. Olin Science Hall. The student competition will be Higley Auditorium (room 105). The Friday evening Banquet is in the Welsh Hills room of Burton Morgan Hall.

#### **Meeting Registration**

(Continued from page 1)

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 buffet fee (rotisserie chicken or five cheese pasta, \$20 per person)] to: Ohio Section MAA Spring Meeting, % Lew Ludwig, Department of Mathematics and Computer Science, Denison University, Granville, OH, 43023, Phone: (740) 587-5638, FAX: (740) 587-5749. Registration by FAX or e-mail will be pending receipt of registration fees.

#### Hotel Information

Granville has two historic inns that are a 15-minute walk to campus that involves a large hill.

The Buxton Inn 313 East Broadway Street Granville, OH 43023 (740) 587-0001 www.buxtoninn.com RATES: \$90-100 (single), \$100-110 (double)

The Granville Inn 313 East Broadway Street Granville, OH 43023 (740) 587-3333 www.granvilleinn.com RATES: \$155, limited rooms available

Within 10-15 minute drive of Denison:

The Courtyard by Marriot, Newark-Granville 500 Highland Blvd. Newark, OH 43055 (740) 344-1800 www.marriott.com/hotels/travel/cmhnk-courtyardnewark-granville RATES: \$114 (double) CODE: Denison MAA Meeting

Holiday Inn Express Hotel 773 Hebron Road Heath, OH 43056 (740) 522-0770 www.hiexpress.com/hotels/us/en/heath/nkhoh/ hoteldetail RATES: \$89

#### Parking

Parking will be available in the lot directly behind F.W. Olin Science Hall. Overflow parking will be available in front of the Mitchell Recreation and Athletics Center and in the parking garage. Please be aware that another conference is on campus that day as well as an Admission's open house. All parking in the University lots is free.

There is a Denison University campus map on page 10. The local contact person at Denison University is Lew Ludwig, ludwigl@denison.edu.

#### Campus Map of Denison University



#### **Campus News Across the Ohio Section**

Distinguished Service Professor of Mathematics and counter with Controversial Mathematics, is scheduled for Dean of the Physical Sciences Division at the University late afternoon on April 4 at Otterbein. of Chicago, has been named Otterbein University's 2013 Vernon Pack Distinguished Scholar-In-Residence. He will be in residence for two one-week periods during spring semester to provide enriching educational experiences for Otterbein and local high school mathematics students. Within mathematics he is an expert in the field of harmonic analysis and its applications to elliptic partial differential equations and its relationship to probability theory. In particular, he is one of the founders of modern multi-parameter Fourier analysis and has lectured around Youngstown State University: The Department of the world on his work. In addition, Fefferman is a recipient of the University's Quantrell Award for Excellence in to Langarica as an assistant professor this past fall. Ali-Undergraduate Teaching, and works with Chicago Public cia received her Ph.D. from the University of Texas at School teachers in order to improve the quality of mathe- Arlington. Her specialty is in Mathematical Biology. matics education for Chicago's children.

Otterbein University: Dr. Robert Fefferman, Max Mason Fefferman's public lecture, A Journey to Infinity: An En-

Sinclair Community College: Anthony Ponder stepped aside as the chair of the department to become the Interim Dean of the Science, Mathematics & Engineering Division. Karl Hess was appointed as the interim chair of the department. David Hare was selected as one of the receipients of the 2012 John & Suanne Roueche Excellence Award from the The League for Innovation in the Community College.

Mathematics and Statistics at YSU welcomed Alicia Prie-

# **Meritorious Service Nominations Needed**

The MAA Certificate for Meritorious Service is awarded to members who have performed significant service to the MAA at either the national or section level. Each Section is permitted to nominate one member for this prestigious award every five years, and this is the year for the Ohio Section. The award will be presented at the Joint Mathematics Meeting in January 2014.

Previous recipients are not eligible to receive the award a second time. Two people may be nominated to be corecipients of the award for service they performed jointly. This award may be given posthumously.

The Ohio Section Executive Committee will select the Section's nominee, but we need your help in identifying worthy recipients. To suggest candidates for this award,

please send the following to Barbara D'Ambrosia, Ohio Section Governor, at bdambrosia@jcu.edu, by April 10, 2013, so that the Executive Committee can forward the Section's nomination to the MAA by the May 1 deadline:

Name of the nominee; detailed description of service of nominee to the MAA, and how that service has affected members and/or activities; brief biographical information.

Previous Meritorious Service Awardees from the Ohio Section are:

S.W. Hahn Andrew Sterrett, Jr. Clifford Long David Kullman Thomas Hern John Michel



# Candidates Nominated for President-Elect and Program Committee

Mathematics, and is the Faculty Chair of the campus. He was a National Project NExT fellow in 1998-1999, and an Ohio NExT fellow from 1999-2001. In the Ohio Section, John has been a member of CONTEAL since 1999 and has chaired that committee since 2007. He has also served as Co-Coordinator of Ohio NExT since 2007.

The Committee also presents Matt Menzel (Marietta College) as the nominee for a three-year term on the Program Committee. Matt earned his Ph.D. from the University of Kentucky under Carl Lee and has been at Marietta College since the fall of 2004. He is a national Project NExT Fellow (brown dot), an Ohio NExT Fellow, and



he recently has both chaired and served on CONSTUM. At Marietta College, Matt is the faculty advisor for the Marietta College Math Club,  $(mc)^2$ . While his doctoral research dealt with polytopes, his current mathematical interests also include graph theory and sports analytics.

The Nominating Committee: Don Hunt, Ohio Northern University, Chair Mark Miller, Marietta College Vicki Van Dresar, Ashland University

John Prather, above, and Matt Menzel, right, are the candidates for the only open positions for section officer.

The election of officers will take place at the Business Meeting, Friday evening, April 5, at Denison University in Granville, Ohio. At that time, nominations for other candidates may also be made from the floor. The President-Elect serves for one year and then becomes President for one year. The senior person on the Program Committee serves as the chair of that committee.

The Nominating Committee is pleased to present John Prather as the nominee for President-Elect. John received his Mathematics Ph.D. from the University of Kentucky in Complex Analysis in 1997. He also holds a J.D. from Vanderbilt University (1991), but really didn't want to do that for the rest of his life. In his preferred career, he is in his 16th year at Ohio University's Eastern Campus, where he is an Associate Professor of

#### Speakers from Outside the Ohio Section Centennial Note #7

Although most speakers at our meetings have been members of the Ohio Section, distinguished visitors from outside the state have often been invited to address section meetings. The first such speaker was George Yuri Rainich (University of Michigan) who spoke on "Linear Vector Functions" in 1930. He was followed by Harold T. Davis (Indiana University) in 1933, speaking on "The Predictable Element in Economic Series," and Kenneth P. Williams (also of Indiana) who spoke the following year on "The Problem of Professional Training."

The first really prominent out-of-stater was Gabor Szegö whose 1935 talk was, "Some Recent Applications of Sturm's Oscillation Method." Szegö, a Hungarian mathematician who was one of the foremost analysts of his generation, was at Washington University at the time, having just come to the US to escape the Nazis in Germany. In 1938 Karl Menger (Notre Dame) spoke on "The Foundations of Projective and Affine Geometry." Rounding out the decade, Gilbert A. Bliss (University of Chicago) presented a paper on "The Hamilton-Jacobi Theory in the Calculus of Variations" in 1939, and the following year another Nazi refugee, the eminent algebraist Emil Artin (Indiana), spoke on "Introduction of Coordinates in Affine Geometry."

A number of invited speakers have come from outside academia. In 1972 Murray Klamkin (Ford Motor Company) spoke on "Mathematics in Industry," and Robert J. Herbold (Proctor & Gamble) talked about "Mathematics in Managerial Science." In 1981 Philip M. Tuchinsky (Ford) presented, "How I Do My Job – Systems Development;" and in 1990 Peter E. Castro (Eastman Kodak) talked about "Industrial Mathematics – More Than Applied Mathematics." Speakers from the National Security Agency have included Dan McWhorter who gave two talks in 2003: "Introductory Coding Theory" and "Mathematics at the National Security Agency." The following year J. Kevin Colligan, spoke on "Breaking the Enigma."

History of mathematics has been a popular topic in recent years, but as early as 1941 George A. Miller (University of Illinois) gave a talk on "Mathematical Statements in the History of Mathematics." Euler scholar William Dunham (Muhlenburg College) spoke about "Euler's Sums and Euler's Crumbs" in 1999. In observance of the millennium in 2000, James Tattersall (Providence College) gave two talks: "Two Books that Spanned a Millennium" and "Mathematical Vignettes from Cambridge." V. Frederick Rickey, formerly of Bowling Green State University, returned to Ohio several times as a visitor from the US Military Academy at West Point. In 2001 he spoke about "The Palimpsest of Archimedes" and "History of Mathematics as a Peda-

gogical Tool." In 2009 Rickey spoke about "Jared Mansfield: Ohio's First Mathematician," and Judith Grabiner (Pitzer College) gave two history talks: "It's All for the Best: Optimization in the History of Science" and "Lagrange, Symmetry, and Space."



Not surprisingly, many V. Frederick Rickey in 2009

invited speakers have chosen to talk about the undergraduate mathematics curriculum and how to teach it. A sampling of such talks would include: J. Laurie Snell (Dartmouth, 1958) "The New Dartmouth Mathematics Curriculum;" Edwin E. Moise (CUNY, 1975) "The Problem of Learning to Teach;" Lynn Steen (St. Olaf, 1984) "Renewing Undergraduate Mathematics;" Alan H. Schoenfeld, (Berkeley, 1985) "The Reality of Student Problem Solving Behavior - It's Worse Than You Think;" Bettye Anne Case (Florida State, 1990) "Are We Teaching Majors the Right Mathematics? Are We Teaching It the Right Way?" and David S. Moore (Purdue, 1992) "Teaching Statistics as a Respectable Subject."

Invited speakers have sometimes been sitting presidents of the MAA. For example, in 1964 R.H. Bing (Wisconsin) gave an invited address on "Homogeneity." The following year President Raymond L. Wilder (Michigan) spoke about "The Axiomatic Method." Victor Klee (University of Washington) spoke about "Convex Sets in Geometry and Analysis" in 1971, and Ralph P. Boas (Northwestern) addressed the Ohio Section on "Consequences of Continuity" two years later. Boas returned in 1981 to give a lecture on "The Harmonic Series and the Elephants."

In addition to Rickey and Boas, "repeat performers" have included Peter J. Hilton (Cornell, Case-Western

# The Ohio Section Newsletter

(Continued from page 12)

Reserve, and SUNY-Binghampton) and Henry O. Pollack (Bell Telephone Labs). Hilton addressed the Section three times: "COSRIMS [Committee on Support of Research in the Mathematical Sciences]: Problems of Implementation of the Recommendations" in 1965; "The Development of Algebraic Topology – A Study in Evolution" in 1979; and "From Elementary Geometry to Not So Elementary Number Theory: The Final Story" in 1986. Pollack also talked about COSRIMS in 1969 and described "A Loop Switching Problem" in 1974.

Some talks at Ohio Section meetings might be called "just for fun," even though they involved non-trivial mathematics. For example, in 1986 Persi Diaconis (Stanford) spoke on "Combinatorics and Card Tricks." Frank Ryan (Rice), who led the Cleveland Browns to their last league title in 1964, is the only Ph.D. in mathematics to have

played in the National Football League. One of his two talks in 2007 was titled, "Resolved, that a Football Is a



Mathematical Object," and the other was "Mathematics and Truth."

After his talk, Frank Ryan autographed the Ohio Section's official NFL football.

David Kullman, Miami University Tom Hern, Bowling Green State University Centennial Committee

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One of the items on display at the Fall 2012 meeting was a picture taken 95 years ago. The caption reads:

Second Annual Meeting, Ohio Section Mathematical Association of America Columbus, Ohio, April 6, 1917

Would your institution like to host an Ohio Section MAA meeting? Contact the Ohio Section President, Wiebke Diestelkamp , or the President-Elect, Phil Blau, for more information. Contact information can be found on page 15.

# Archive on Display at Fall 2012 Meeting

In an effort to heighten awareness of our Section's important role in the upcoming Centennial celebration of the MAA in 2015, and to showcase some of the fascinating items in our Section Archive, I mounted a simple display some of these items at the Fall 2010 meeting at Baldwin Wallace University. The exhibit included items that followed the evolving history of the Ohio Section, in five year intervals moving backwards from 2012. So, for instance, the display featured a photo of invited speaker Francis Su of Harvey Mudd College, who spoke at the Spring 2007 meeting; an announcement from 20 years ago of the Summer Short Course "Fractals and Chaos", run by Robert Devaney of Boston University held in June 1992; from 25 years ago, the Section Newsletter article that announced a Sloan Foundation grant to Zaven Karian and Andy Sterrett (both of Denison University) to support integration of newly available computer algebra systems in the teaching of calculus; and so on. In particular, from 95 years ago (!), one of the oldest pieces in the Archive was displayed: a photo of 22 of the participants to the Section's second meeting in April 1917.

Many commented favorably on the exhibit and have asked me to provide similar displays in the future. Look for another *Archive Dive, Live!* display at future Section meetings.

> Danny Otero Xavier University Section Archivist

#### In Memoriam: Doug Faires

J. Douglas Faires, longtime MAA member and husband of MAA Secretary Barbara Faires, passed away on Friday, December 21, 2012.

Doug obtained his Ph.D. at the University of South Carolina in 1970. He was a member of the faculty in the Department of Mathematics at Youngstown State until his retirement in 2006.

Doug served as President of the Ohio

Section of MAA in 1981-82, and represented the Section on the Board of Governors from 1997-2000. He was awarded the Section Teaching Award in 1996. In addition to his deep involvement with MAA, Doug was a leader in Pi Mu Epsilon, serving as a member of the Council from 1987 to 2005, including a term as President from 1999 to 2002.

Dr. Faires, as he was known to his students, will be remembered not for his awards, but as a dedicated teacher. He was a master at getting the best out of those around him, encouraging them to recognize their own potential and mentoring them to achievements far



beyond their expectations. A tireless champion of undergraduate research in mathematics, Doug was a driving force behind the establishment, in 2006, of the Center for Undergraduate Research in Mathematics at Youngstown State.

Doug's publication list was long, and includes several editions of the classic *Numerical Analysis*, with Richard Burden. More recently, he wrote the best -selling book <u>First Steps for Math</u> <u>Olympians: Using the American</u>

Mathematics Competitions (MAA, 2006).

A memorial service will be held at St. John's Episcopal Church, 323 Wick Ave. in Youngstown on Feb. 23, 2013, at 3 p.m., following the undergraduate research in mathematics conference that he started at YSU in 1999.

Memorial contributions may be made to the YSU Center for Undergraduate Research in Mathematics www.curmath.ysu.edu or to any organization that encourages students to pursue excellence in mathematics.

#### Ohio NexT Program Announces Plans For Spring Meeting

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, April 4th, the night preceding the Ohio Section Spring Meeting, members of Ohio NExT will gather for a banquet beginning at 7:00 p.m. at the Buxton Inn (http://www.buxtoninn.com/) in Granville, Ohio. This is a great opportunity to meet old friends and make new ones. After the banquet, the NExTers will spend approximately an hour discussing a topic related to the profession.

Then, on Friday morning, April 5th, the Ohio NExT program will continue in Olin Room 222 on the Denison University campus with a continental breakfast provided. The program will feature two workshops, as well as contributed talks by Ohio NExTers. We are happy to announce that one of the workshops will be led by Barbara Faires, MAA Secretary and Professor of Mathematics Emerita at Westminster College.

At last fall's meeting, the NExT workshop at Baldwin Wallace University featured Tommy Ratliff of Wheaton College and Erica Flapan of Pomona College for the fifty-minute workshops. Carl Mummert of Marshall University and Paige Rinker of John Carroll 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 spring 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); John Prather, Ohio University Eastern Campus (prather@ohiou.edu); and Chris Swanson, Ashland University (cswanson@ashland.edu).

# 2012-2013 Ohio Section Officers and Committees

#### ELECTED OFFICERS

President

Wiebke Diestelkamp, University of Dayton 937-229-2013; wiebke@udayton.edu

Past-President #1 Jon Stadler, Capital University 614-236-6905; jstadler@capital.edu

Past President #2 Don Hunt, Ohio Northern University 419-772-2351; d-hunt@onu.edu

President-Elect Phil Blau, Shawnee State University 740-351-3443; pblau@shawnee.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 Carl Spitznagel, John Carroll University 216-397-4682; spitz@jcu.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 330-972-8809; kc24@uakron.edu Chris Swanson, Ashland University 419-289-5264; cswanson@ashland.edu John Prather, Ohio University Eastern 740-699-2498; prather@ohio.edu

OhioMATYC Liaison to OhioMAA Jim Anderson, University of Toledo

**OhioMAA Liaison to OhioMATYC** Robert Hovis, Ohio Northern University

OMSC Liaison Katie Cerrone Arnold, University of Akron

#### **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**

\*Adam Parker, Wittenberg University (2013) Lew Ludwig, Denison University (2014) David Meel, Bowling Green State U. (2015)

#### CONTEAL

\*John Prather, Ohio U. Eastern (2014) Richard Little, Baldwin-Wallace U. (2013) Drew Pasteur, College of Wooster (2013) Sandy Schroeder, Ohio Northern U. (2013) Laurie Dunlap, University of Akron (2014) Susan Thompson, Otterbein College (2014) Pam Warton, University of Findlay (2015)

#### CONSTUM

\*Ryan Rahrig, Ohio Northern U. (2013) Mohammad Zaki, Ohio Northern U. (2013) Matt McMullen, Otterbein U. (2014) Elizabeth Wilmer, Oberlin College (2014) Matthew Menzel, Marietta College, (2015) Thomas Wakefield, Youngstown St. U. (2015)

#### CONSACT

\*Karl Hess, Sinclair CC (2013) Glen Lobo, Sinclair CC (2013) Justin Young, Ashland, University (2014) Barbara Margolius, Cleveland State U. (2015) Paige Rinker, John Carroll University (2015) Eric Wingler, Youngstown State U. (2015)

#### CONCUR

\*William Fuller, Ohio Northern U. (2014) Chandra Dinavahi, U. of Findlay (2013) David Stuckey, Defiance College (2013) Anne Albert, U. of Findlay (2014) David Cusick, Marshall University (2015) Giorgi Shonia, Ohio U. Lancaster (2015)

#### **OTHER COMMITTEES**

#### **Nominating Committee**

\*Don Hunt, Ohio Northern University (2015) Mark Miller, Marietta College (2014) Vickie Van Dresar, Ashland U. (2013)

#### **Committee on Contests**

David Stenson, John Carroll U., AMC12

#### **Teaching Award Committee**

\*Jon Stadler, Capital University (Past President) Pamela Warton, U. of Findlay (Secretary), Richard Little, Baldwin-Wallace College (Past recipient 2010) David Meel, Bowling Green State U. (Past recipient 2011)

#### **Centennial Committee**

\*David Kullman, Miami University Tom Hern, Bowling Green State University Danny Otero, Xavier University Tom Dence, Ashland University Jon Dunlap, Bowling Green State University Al Stickney, Wittenberg University

#### LOCAL ARRANGEMENTS FOR MEETINGS

Spring 2013: Denison University Lew Ludwig, ludwigl@denison.edu

Fall 2013: Cleveland State University Barbara Margolius, B.MARGOLIUS@csuohio.edu

Spring 2014: University of Toledo Jim Anderson, jimanderson@utoledo.edu

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

If you are interested in serving on one of the Ohio Section committees, please contact the Ohio Section President, Wiebke Diestelkamp, or the President-Elect, Phil Blau.

# Calendar

# **Ohio Section**

Spring 2013 Section Meeting, April 5 - 6, 2013, Denison University, Granville, OH

Fall 2013 Section Meeting, October 4 - 5, Cleveland State University, Cleveland, OH; followed by the Fall Workshop

Spring 2014 Section Meeting, April 4 - 5, University of Toledo, Toledo, OH; with SIAM

Fall 2014 Section Meeting, Dates TBA, Wittenberg University, Springfield, OH; followed by the Fall Workshop

Spring 2015 Section Meeting, Marshall University, Huntington, WV

Fall 2015 Section Meeting, Ohio Northern University, Ada,OH

Spring 2016 Section Meeting, Ohio State University, Columbus, OH; Centennial

# National MAA-AMS

MathFest, August 1 - 3, 2013, Hartford, CT

Annual Joint Meetings, January 15 - 18, 2014, Baltimore, MD

MathFest, August 7 - 9, 2014, Portland, OR

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

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

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

**Thank** You to the many people who contributed articles and information for this newsletter. Also a great thanks to those providing technical assistance. It truly is a combined effort.

David Stuckey, Editor

#### Other

Michigan Undergraduate Mathematics Conference, February 23, 2013, Siena Heights University, Adrian, MI, featuring Jim Albert of Bowling Green State University, Bowling Green, OH

Student Mathematics Conference, February 23, 2013, Youngstown State University, Youngstown, OH

T<sup>3</sup> International Conference, March 8 - 10, 2013, Philadelphia, PA

International Conference on Technology in Collegiate Mathematics (ICTCM), Mar 21 - 24, 2013, Boston, MA

Indiana Section MAA Meeting, March 29 - 30, 2013, Indiana University East, Richmond, IN

Allegheny Mountain Section MAA Meeting, April 5 - 6, 2013, Indiana University of Pennsylvania, Indiana, PA

Kentucky Section MAA Section Meeting, April 5 - 6, 2013, Transylvania University, Lexington, KY

Illinois Section MAA Meeting, April 5 - 6, 2013, Roosevelt University, Chicago, IL

Great Lakes Section SIAM meeting, April 20, 2013 Central Michigan University, Mt. Pleasant, MI

NCTM National Meeting, Apr 17 - 20, 2013, Denver, CO

Michigan Section MAA Meeting, May 3 - 4, 2013, Lake Superior State University, Sault Ste. Marie, MI

SIAM Annual Meeting, July 8 -12, 2013, San Diego, CA

Joint Statistical Meetings, August 3 - 8, 2013, Montreal, Quebec, Canada

# **Ohio Masters of Mathematics Page**

A new biographical sketch has been added to the Section's "Ohio Masters of Mathematics" page on the Section website. Click on "Section History and Archives". It is about E. H. Moore, who was born in Ohio and went to high school in Cincinnati. These sketches can be used for teaching as well as just plain enjoyment. There are 40 such sketches there now. New ones about John Wesley Young and D. Ransom Whitney are in the works. Do you have one to add? Contact David Kullman, Miami U. (kullmade@miamioh.edu)