Fall 2012 Newsletter

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Dates to remember:

- Fall MD-DC-VA Section meeting: October 26-27, 2012. Deadline for contributed talks: October 17, 2012.

- Shenandoah Undergraduate Mathematics and Statistics (SUMS) conference, September 29, 2012 at JMU, Harrisonburg, VA.

- Joint meetings of MAA and AMS: January 9-12, 2013 in San Diego, CA.

Fall Meeting at Virginia Military Institute

On October 26-27, 2012, Virginia Military Institute will host the Fall 2012 MD-DC-VA Section Meeting of the MAA. Highlights include:

Friday: Caren Diefenderfer of Hollins University and **Jan Minton** from Roanoke College will be offering a late afternoon workshop entitled "*Creating Models to Explore Hyperbolic Geometry*" and also will be presenting the Friday evening banquet address "*Hyperbolic Crochet Coral Reef Comes to Southwest Virginia.*"

Saturday: In addition to the contributed paper sessions, there will be an invited address given by **David Lyons** from Lebanon Valley College . He will speak on "*Quantum Information: An Ongoing Research Program with Undergraduate Students.*" In the afternoon there will be two parallel sessions: **Randy Cone** from the Virginia Military Institute will be presenting "*A Forum on the Status of Mathematics Education: A Conversation in Solutions*" and **Jeff Suzuki** from Brooklyn College will be presenting a "*Mini-Workshop: How to Win an Election Without really Trying.*"

The deadline for submissions of papers is October 17, 2012. If you have any questions or need any further information, please contact David Taylor at taylor@roanoke.edu.

For more information about the Fall meeting, including abstracts and biographies of the invited speakers, see pages 4, 5 and 6.

Lodging

There are two local hotels with blocks of rooms for this conference.

Quality Inn & Suites
2814 N. Lee Highway
Lexington, VA 24450
(540) 463-6400
(*To get a block rate, reserve by October 8, 2012 and use the code word* "Math Conference VMI.")

Motel 6 Lexington
65 Econo Lane
Lexington, VA 24450
(540) 463-7371 or (866) 998-8650
(*To get a block rate, reserve by October 5, 2012 and use the code word* "Math Conference.")

To find maps, hotels, registration, and program information, visit the MD-DC-VA Section website at
http://sections.maa.org/mddcva/index.php

REPORT FROM THE SECTION CHAIR AND GOVERNOR

DANIEL JOSEPH - CHAIR

DAN KALMAN - GOVERNOR

As this letter is being written the school year has just begun. However, planning has long been underway for the fall meeting at the Virginia Military Institute in Lexington, VA on October 26 and 27, 2012. We hope you will all be able to come out and enjoy the program and renew acquaintances (or make new ones) with members of the section. Please note that the meeting is a little earlier than usual this year so don't let it sneak up on you. The deadline to reserve a hotel room under the reserved block for the MAA meeting is October 5th. The rates will go up significantly after that so sign up early. For those who are interested and able to arrive in Lexington early on the 26th, former Secretary of Defense, Robert Gates, is scheduled to speak at 1000 AM in an address that is open to the public.

There will be a parade in his honor afterwards.

This summer's MathFest was in Madison, Wisconsin. It was a great success. Attendance was at or near a new record for MathFest. The invited lectures were of uniformly high quality, particularly Bernd Sturmfels' Hedrick lecture series. There was the usual array of other activities, including a revival of last summer's *MAA – the Musical!* at the opening banquet. Our section's participation in the musical was even better this year than last. Bud Brown served again as Musical Director and piano player, and Dave Kung joined in on his violin. Governor Dan Kalman, at large executive committee member Leigh Lunsford, and former section member Katherine Socha all appeared in the cast. There

was also a full program for Project NExT participants, including the new fellow our section supports, Rebecca Jayne of Washington College.

Rebecca Jayne

Several colleagues from our section were recognized at the Awards Session. John Adam of Old Dominion University received an Allendoerfer Award, Dan Kalman a Trevor Evans Award, and T.

Math in the media ...

Treating Disease by the Numbers

Mathematical modeling being tested by researchers at the School of Science at Indiana University-Purdue University Indianapolis (IUPUI) and the IU School of Medicine has the potential to impact the knowledge and treatment of several diseases that continue to challenge scientists across the world.

(For full story go to http://www.sciencedaily.com/releases/2012/09/120920140158.htm.)

Math Ability Requires Crosstalk in the Brain

A new study by researchers at UT Dallas' Center for Vital Longevity, Duke University, and the University of Michigan has found that the strength of communication between the left and right hemispheres of the brain predicts performance on basic arithmetic problems. The findings shed light on the neural basis of human math abilities and suggest a possible route to aiding those who suffer from dyscalculia -- an inability to understand and manipulate numbers.

(For full story go to http://www.sciencedaily.com/releases/2012/08/120829103516.htm.)

MAA—the Musical

S. Michael of the Naval Academy a Polya Award. More details and links to their prize winning papers can be found at **http://www.maa.org/news/MathFest2012awards/summary.html**. Citations for each award, responses from the awardees and biographical information appear in a booklet at **http://www.maa.org/awards/MFPrizeBooklet2012.pdf**.

The most significant discussions at the Board of Governors meeting concerned the MAA's financial situation and a proposal to adopt double masked (also called double blind) refereeing for all the MAA print journals. As reported in our newsletter for the past several issues, the MAA has been running operating deficits on the order of $200,000 for the past several years. In spite of dedicated planning and cost cutting for 2012, a deficit above $200,000 is now projected for this year as well. While these deficits are not large as a percentage of the overall operating budget (somewhere around $8 million) or the organization's net worth (on the order of $20 million), it is recognized by the officers, staff, and Board of Governors that continuing to run deficits for the long term is not sustainable. To bring the budget into balance, efforts over the last three years have focused on measures to save money through increased efficiency and reductions of some activities, while maintaining the overall structure and programs of the MAA. This approach has not been successful.

At the same time, there have been recent changes in the leaders of the MAA staff. Michael Pearson was appointed Executive Director in January, vacating his position as Associate Executive Director for Programs and Member Services. The Director of Marketing and the Assistant Director for Meetings resigned to pursue other opportunities. Pearson has also made some changes to the organization structure of the headquarters office. In his presentation to the board at MathFest, he proposed several initiatives which he believes will allow the MAA to reach a balanced financial position. These initiatives will require us to invest in the future, drawing on existing assets, but are expected to lead to increases in revenue from publications, meetings, and web content after a few years. Although the board did not approve any specific initiatives, it did vote nearly unanimously to support these efforts in principle. The board will receive more specifics as the planning proceeds. The board must approve programmatic and budgetary proposals before they can be enacted.

Member Book Benefit Changing in 2013

The MAA is changing the way members receive a discount or other offer when they buy MAA books. Beginning in January, this member benefit will vary from month to month. Members will receive a new code each month that enables them to take advantage of that month's benefit—a discount, free shipping and handling, or a "buy one, get one free" offer—when they place an order.

MAA book catalogs, book advertisements, and the MAA store will show only the list price; members will need to use the current code to receive the discount or other offer. The code will be emailed each month to members, placed in the members-only section of the MAA website, and printed in *MAA FOCUS*. The MAA Service Center will also have the code available.

Plan now for the Spring Meeting at Salisbury University, April 12 - 13, 2013!

Fall Meeting - Featured Speakers

Workshop - *Creating Models to explore Hyperbolic Geometry*

Jan Minton
Roanoke College

Caren Diefenderfen
Hollins University

Abstract: The workshop will provide some history of hyperbolic geometry and allow participants to explore two theoretical models of hyperbolic geometry (The Poincare Disk and the Open Half Plane) via Geogebra, an open source software. Bring your laptop. Participant will also create physical models of the hyperbolic plane and materials will be provided. Participants may choose whether they wish to knit, crochet or work with paper and scissors. No previous experience with knitting or crochet is necessary. We will ask those who do knit/crochet to help beginners.

Biographical Sketches:

"Equations are just the boring part of mathematics. I attempt to see things in terms of geometry."
-Stephen Hawking

Jan Minton, Roanoke College, and Caren Diefenderfer, Hollins University, have been crocheting models of hyperbolic geometry as part of the Roanoke Valley Reef project. The Olin Art Gallery of Roanoke College will display this project, a satellite of the Hyperbolic Crochet Coral Reef of the Institute for Figuring (IFF) in 2013. Jan Minton is the

coordinator of this community art project and Caren Diefenderfer is teaching "Discovering New Worlds," a first year seminar class on Hyperbolic Geometry and the Crochet Coral Reef. Cornell professor, Diana Taimina, was the first to realize that crochet models produce good tactile representations of hyperbolic surfaces. Margaret and Christine Wertheim, founders of the IFF, were inspired by Taimina's work and decided that Taimina's models looked like coral pieces. As a result, artists, environmentalists and crafters around the world have embraced these ideas and worked together to produce exhibits that highlight the important role of coral reefs. The most famous Crochet Coral Reef appeared at the Natural History Museum of the Smithsonian in 2010-2011.

Jan Minton received her BS from the University of North Carolina at Chapel Hill and her MS from Clemson University. She has been a member of the Roanoke College Mathematics Department for over 20 years. As Associate Director of the Roanoke College Honors Program she developed and taught Mathematics and the Arts, an exploration of the mathematical underpinnings of various art forms. She was excited to discover the Hyperbolic Crochet Coral Reef, a project of the Institute for Figuring that "resides equally in the realms of art, science, mathematics, and environmentalism". She has given several presentations and workshops to recruit participants for a satellite project.

Caren Diefenderfer received her AB from Dartmouth College and her MA and PhD from the University of California at Santa Barbara. She has been a member of the Hollins Mathematics Department for over 30 years. She has always enjoyed combining mathematics with music and/or fiber arts and has offered "Mathematical Knitting" and "The Music and Mathematics of Change Ringing" in the Hollins January short term. This fall she is teaching a first year seminar course titled "Exploring New Worlds: Hyperbolic Geometry and the Crochet Coral Reef Project."

Banquet Address - *Hyperbolic Crochet Coral Reefs comes to Southwest Virginia*

Jan Minton
Roanoke College

Caren Diefenderfen
Hollins University

Abstract: Minton and Diefenderfer will discuss the chronology of the Roanoke Valley Reef and describe key ideas of hyperbolic geometry. The talk will highlight the multifaceted nature of the Coral Reef project and opportunities for collaboration with other academic disciplines and the wider Roanoke Valley community.

Invited Address: *Quantum Information: An ongoing research program with Undergraduate Students*

David W. Lyons
Lebanon Valley College

Abstract: This talk introduces the beautiful subject of quantum information that involves physics, mathematics, and computer science. We examine the intuition-defying topic of quantum entanglement---dubbed "spooky action at a distance" by Einstein---wherein physical systems, possibly separated by distances far enough to prevent interaction over short time spans, can nevertheless exhibit correlations and perform communication tasks not possible in classical models. We describe recent and ongoing joint student-faculty work in quantum information science conducted at Lebanon Valley College, with thoughts and observations about student research in particular.

Biographical Sketch: David Lyons is a professor of mathematics at Lebanon Valley College. His current research is in quantum information science---an interdisciplinary area involving mathematics, physics, and computer science. Lyons' teaching-related scholarship is driven by a longstanding interest in the use of geometry and visualization for teaching mathematical concepts.

Invited Address [Parallel Session]: *A Forum on the status of Mathematics Education: A Conversation in Solutions*

Randy Cone
Virginia Military Institute

Abstract: Several recent rankings, studies, and articles have indicated that STEM preparedness in the United States, at all educational levels, is on the decline. Do such findings indicate the actual state of affairs in mathematics education? Perhaps more salient and manageable questions are: are we satisfied with the current state of preparedness in mathematics within our current population of students? If not, what are some possible courses of action that may we take to meet these students at their level? The point of this forum is to begin a conversation, at the MD-DC-VA Section level, about specific solutions some institutions are developing in the face of a perceived lack of mathematical preparedness in their incoming students. First, to give the forum some context, some general information from recent studies on post-secondary mathematics education will be presented. Second, the forum moderator will give some detailed information about specific programs of action that are underway at his home institution; programs of action designed to meet student-preparedness challenges. Finally, the forum moderator will ask the session attendees to contribute their own solutions, encouraging them to speak about initiatives at their home institutions which are designed to meet the issues of student-preparedness.

Biographical Sketch: Randall E. Cone is currently director of the new IBL-based Mathematics Education and Resource Center (MERC) at the Virginia Military Institute. He received his undergraduate education at Salisbury University in Maryland, his Ph.D. from Virginia Tech, and has enjoyed learning and teaching throughout his career (often occurring simultaneously). He continually looks to how best to engage his students and encourage them to become independent thinkers. Randy, as most know him, loves life and music; noting that they are usually, and approximately, the same thing.

Invited Address [Parallel Session]: *A Forum on the status of Mathematics Education: A Conversation in Solutions*

Jeff Suzuki

Brooklyn College

Abstract: In 1812, a new word joined our political lexicon: the gerrymander, a bizarrely shaped district designed to give one political party an advantage in the next election. Since then, gerrymanders have been denigrated as "pathologies of democracy," and various schemes have been suggested to combat gerrymanders. But to date, identifying gerrymanders has barely gotten past the "I know it when I see it" stage. We'll take a look at the basic problem, and examine several different measures of bizarreness. The material can be incorporated in courses from remedial algebra, through probability and statistics, and on to undergraduate research.

Biographical Sketch: As an undergraduate, Jeff Suzuki's interests included mathematics, science, and history; consequently his Ph.D. dissertation was on the history of a problem in mathematical physics. Since then, he has continued working in the history of mathematics, but his interests have expanded to include mathematics education and non-western mathematics, with a particular focus on bringing research into classroom mathematics at all levels. His most recent project is mathematics and social advocacy, which can be described as using mathematics to answer questions like "How large should a jury be and how should it render its decision?" (12 and by unanimous vote) or "Does the electoral college really give large states more political power?" (no, despite claims to the contrary). His recent publications include Mathematics in Historical Context (MAA Publications) and "A Mathematical Explanation for the Martyrdom Effect" (International Journal of Differential Equations and Applications).

Turning to the other major focus of the board meeting, the proposal to adopt double-masked refereeing arose out of the MAA's participation in project AWARDS (see **http://www.awis.org/displaycommon.cfm?an=1&subarticlenbr=397**), a multidisciplinary investigation of possible bias against women in the process of granting awards and prizes for scholarly achievement in academic disciplines. The board received reports of research into what is termed *unconscious bias* – bias exhibited by both men and women and members of diverse ethnic and cultural groups, even when the subjects actively oppose such bias and attempt to behave in unbiased ways. More about this area of research can be found at **http://writers.unconsciousbias.org**.

MAA officers Betty Mayfield and Francis Su, who studied these issues and participated in the AWARDS project, recommended that the MAA consider adopting double-masked refereeing as one means of avoiding unconscious bias. After review by various MAA committees, last January a motion was proposed jointly by the Council on the Profession, the Council on Prizes and Awards, and the Joint Committee on Women to adopt such a policy. On the other hand, investigations by the Council on Publications revealed that many members of journal editorial boards were not in favor of double-masked review. After a vigorous debate and consideration of several possible policies, the board ultimately approved the double-masked refereeing policy. Editors are to have broad latitude to approve exceptions to the policy, and the current editors will not be required to adopt the policy during their terms. The Board of Governors also formally adopted an anti-bias policy. All MAA members, and particularly those on nomination, award, and program committees, are urged to review the policy statement at **http://sections.maa.org/avoiding_bias.pdf**.

Governors were asked to bring the following additional information items back to their sections.

- There is a broad range of MAA awards, and members are encouraged to submit nominations where appropriate. A complete list is availa-

ble at **http://sections.maa.org/mddcva/OtherDocuments/MAAAwardsPoster-July2012.pdf**

- The American Mathematical Competitions Program is an important component of MAA outreach. Members are encouraged to learn more about the AMC. In particular, you might like to consider having your home institution host AMC exams. The AMC problems are a rich source of mathematical ideas accessible to secondary students. You can now find compilations of the problems, cross referenced to items in the Common Core Standards in mathematics. More information available at **http://amc.maa.org/** .

The MD-DC-VA's own Genevieve Knight is interviewed in the August-September issue of Focus (See **http://digital.ipcprintservices.com/**

Genevieve Knight

publication?i=121681 page 17). Professor Knight is a familiar figure at our section meetings, and has long been an active member of the section and the national or-

ganization. The interview was conducted by Ken Ross for a project of the MAA Centennial Committee. A collection of interviews with prominent mathematicians and MAA members will appear on the MAA website.

Finally, we end this letter on a sad note. Sr. Helen Christensen passed away on August 2, 2012. She was a great supporter of our section and held several positions on the Executive Committee including Program Chair and Section Chair. An article remembering her and her many contributions to the Loyola University Maryland community can be found at **http://www.loyola.edu/Media/News/2012/0813-helen-christensen.aspx** . Sr. Christensen will be dearly missed by our section.

Fall Puzzle: Tile Sudoku — Laura Taalman

Rules: Fill in the 10x10 grid with the numbers 1-5 so that each pentomino region contains 1-5 exactly once, and each row and column contains 1-5 exactly *twice*.

To see the solution go to page 9.

Future National MAA Meetings

MathFest

2013: Hartford, CT - August 1-3
2014: Portland, OR - August 7-9
2015: Washington, DC - August 5-8

MAA-AMS Joint Mathematics Meetings

2013: San Diego, CA - January 9-12
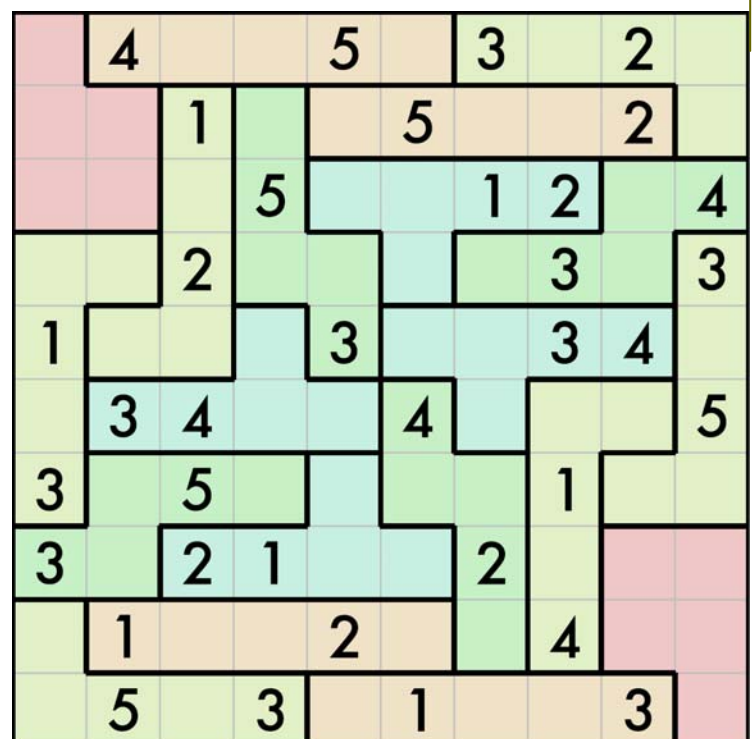**2014:** Baltimore, MD - January 15-18
2015: San Antonio, TX - January 10-13
2016: Seattle, WA - January 6-9
2017: Atlanta, GA - January 4-7
2018: San Diego, CA - January 10-13
2019: Baltimore, MD—January 16-19

Section News

New Faculty

The Mathematics and Computer Science department at **Goucher College** was fortunate enough to hire **Justin Brody** as an Assistant Professor beginning September 2012. Justin had been teaching at Franklin & Marshall since receiving his Ph.D. from the **University of Maryland** in 2009. The department is looking to hire another to begin teaching in September 2013.

Hood College is pleased to welcome **Amy Shell-Gellasch** as an Assistant Professor in the Department of Mathematics. Amy received her D.A. in Mathematics from the University of Illinois at Chicago, and has held positions at Beloit College, Pacific Lutheran University, and the United States Military Academy. She is currently the Programs Chair for HOM SIGMAA and the Chair of the MAA Committee on SIGMAAs.

James Madison University welcomes four new faculty members as Assistant Professors in the Department of Mathematics. **John M. Siegfried** received a Ph.D. in May, 2012, in mathematics and science education, from San Diego State University and University of California - San Diego. His thesis, "Productive Disposition: The Neglected Strand of Mathematical Proficiency", was directed by Randolph Philipp. John describes his dissertation work as….I am trying to better understand productive disposition and how to assess for it. The term productive disposition was coined by the National Research Council as the tendency to see sense in mathematics, to perceive it as both useful and worthwhile, to believe that steady effort in learning mathematics pays off, and to see oneself as an effective learner and doer of mathematics (NRC, 2001, p. 131). Because little research has been conducted on productive disposition, I am drawing eight constructs from the literature that are connected to this definition: affect, beliefs, identity, goals, motivation, mathematical integrity, risk taking, and self-efficacy. The definition from the NRC and the work on the related constructs serve as the foundation from which I developed a rubric to look for evidence of people holding strong productive dispositions when engaging with mathematical tasks. My goal is that by examining the orientations of a variety of teachers and by studying in-depth the evidence given by teachers who seem to hold strong productive dispositions, I can begin to better understand what productive disposition is and what evidence is shown when it is being used to help solve mathematical tasks. **Alexis Johnston Stevens** earned the Doctor of Philosophy degree from **Virginia Tech** in May, 2012. Her thesis, titled "Homework journaling in undergraduate mathematics", was directed by Jesse L.M. Wilkins. Her current research interests are primarily related to mathematics education at the college level. Specifically, she is interested in exploring the relationship between journal writing in college mathematics and students intrinsic motivation towards mathematics, students attitudes towards writing in mathematics, and students mathematical understandings, both procedural and conceptual, through the use of both quantitative methods of analysis (MANOVA) and qualitative methods of analysis (code mapping/constant comparative). **Eva Marie Strawbridge**, comes to us most recently from the Department of Mathematics at University of Chicago. Eva earned a Ph.D. in Applied Mathematics from the University of California, Davis, in June, 2009. Her Ph.D. advisor was Craig Benham and her thesis was titled "The Mechanics, Dynamics, and Structures of DNA". Her research interests include continuum mechanics, PDE's and mathematical applications to biology. Her current research interests include mathematical models of swimming or crawling organisms, slender-body theory, fluid mechanics, and elasticity. In particular, She is interested in the dynamics of long, slender, elastic or viscoelastic bodies in fluids as models for biological

filaments such as DNA, flagella, or entire organisms such as nematode worms. She has additional interests in disease modeling and epidemiology. **Cassandra (Cassie) L. Williams** earned a Ph.D. from Colorado State University, July 2012. Her Ph.D. Advisor was Jeffrey Achter. Cassie described her thesis as "a blend of group theory, number theory, and algebraic geometry." She is currently interested in relating the sizes of conjugacy classes in certain matrix groups to the arithmetic of abelian varieties. In particular, her research focuses on relating the probability that an element of a matrix group is a Frobenius endomorphism of an abelian variety to Euler factors of a product of L-series associated to a number field. Cassie Williams was recently named a Project NExT Fellow.

The Department of Mathematics and Computer Science at **Virginia State University** is pleased to welcome four faculty members as Assistant Professors. **Yongjin Lu** received his Ph.D. degree in Mathematics from **University of Virginia** in 2012. His research area is in nonlinear partial differential equations arising from mathematical physics and the related control theory and functional analysis. **M. Shahriar Hossain** received his Ph.D. degree in Computer Science and Applications from **Virginia Tech** in 2012. His research interests lie broadly in the area of data mining and machine learning where the designs of the algorithmic frameworks are constrained by user criteria. Some other areas of his research are database systems, artificial intelligence, text analytics, transfer learning, and distributed and parallel computing. **Wei-Bang Chen** received his Ph.D. from the University of Alabama at Birmingham in 2012. Chen also has an MS in genetics from Institute of Genome Sciences, National Yang-Ming University, Taiwan, and is a Microsoft Certified Systems Engineer (MCSE). His research interests include bioinformatics, multimedia data mining, image processing, and cyber security. **Jing Zhang** received her Ph.D. in mathematics from the **University of Virginia** in 2011. Her Ph.D. thesis work is about min-max game theory and optimization of PDE models that arise in physical science, engineering, and biological systems. She published two papers regarding this area during her Ph.D. Currently she also works on the numerical solutions for Riccati equations associated with the min-max game theory problems for the PDE models.
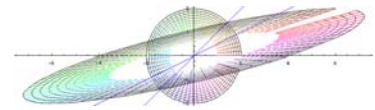
Solution to Tile Sudoku: Flip vertical

Publications

Professor Ivan Sterling and undergraduate math major from **St. Mary's College of Maryland** (now a PhD student in math at the University of Oregon) wrote a paper called "An Explicit Formula for Spherical Curves with Constant Torsion" that has been accepted into the Pacific Journal of Mathematics. **Dr. Susan Goldstine and Ellie** Baker published their paper "Building a better bracelet: wallpaper patterns in bead crochet," in the Journal of Mathematics and the Arts (vol 6, 2012, no. 1, pp. 5-17). **Dr. Casey Douglas** paper "Genus One Scherk Surfaces and Their Limits" was accepted for publication in the Journal of Differential Geometry (this paper was accepted in 2010 and should appear in an upcoming issue). The cover art for the August/September 2012 issue of Math Focus was created by undergraduate math major **Ella Hankins**.

Awards and Grants

2011 – 2012 was a remarkable year for the Department of Mathematics and Computer Science at **Goucher College**. Not only was **Mark McKibben** the recipient of the 2012 John Smith Award for Distinguished College or University Teaching, but **Micah Webster** received Goucher College's Outstanding Teaching Award for Non-tenured Faculty.

The National Science Foundation has awarded a grant of $1,449,960 to **Virginia State University** **(VSU)** for support of the project described above entitled "Central Virginia Undergraduate Mathematics Scholarship Program (CVUMSP)". CVUMSP is under the direction of: **Dr. Cheryl M. Adeyemi** (Principal Investigator), and Co- Principal Investigators: **Dr. Joyce Glaise**, **Dr. Sandra Richardson**, **Dr. Kenneth J. Bernard** of **VSU** and Professor **Kenneth Williams** of **John Tyler Community College**. The award is effective October 1, 2012 and expires September 30, 2017. The NSF Robert Noyce Teacher Scholarship Program is a program seeking to encourage talented science, technology, engineering, and mathematics majors to become K-12 mathematics and science teachers. The Noyce Scholarship Track provides funds to institutions of higher education to support scholarships, stipends, and academic programs for undergraduate STEM majors who earn a teaching credential and commit to teaching in high-need K-12 school districts.

Transitions — Promotions, Retirements and Remembrances

After 35 years at **Goucher College**, **Robert Lewand** has transitioned to half-time status and **Jill Zimmerman** has assumed the role of department chair.

Carl Droms joined the **James Madison University (JMU)** faculty in 1983 after completing a PhD at Syracuse. Carl's research interests have been in geometric group theory and his teaching interests have been wide ranging, from pure mathematics to computing to courses for teachers. Carl received the **JMU** Madison Scholar award in 1994, and throughout his career he has been a leader in promoting scholarship in the department and the College of Science and Mathematics. **Ed Parker** joined the **JMU** faculty in 1984, coming from Pan American University and having earlier received a PhD from Emory. Ed's research has been in differential equations and he has been recognized for his ability to motivate interesting collaborations. In teaching Ed has worked locally and nationally in promoting Discovery Based Learning and the Moore Method and recently has been supported by the Educational Advancement Foundation. **Dave Pruett** joined the **JMU** faculty in 1996, coming to **JMU** from the **College of William and Mary** and **NASA**. He holds a PhD from the University of Arizona. Dave's research interests are in computational mathematics and fluids. His awards and recognitions have included the College of Science and Mathematics Madison Scholar Award (2008) and Outstanding Teacher Award (2004), the Mengebier Fellowship (2008), the JMU Provost Award for Outstanding Honors Teaching (2008), and the ASME Robert Knapp Award (1996). Dave has taught a wide range of numerical and applied courses as well as an honors course recognized by the Templeton Foundation. His book "Reason and Wonder: A Copernican Revolution in Science and Spirit" was very recently released by Praeger Publishers.

Dr. Chirashree Bhattacharya earned tenure and was promoted to associate professor at **Randolph-Macon College**.

St. Mary's College of Maryland is pleased to announce two awards: **Professor David Kung** was awarded full Professor and **Dr. Alex Meadows** was awarded tenure.

Dr. Hui Chen earned tenure and was promoted to the rank of Associate Professor in the Department of Mathematics and Computer Science at **Virginia State University**. Dr. Chen received his Ph.D. in Computer Science from the University of Memphis.

Programs and Conferences

James Madison University will hosts the eighth annual Shenandoah Undergraduate Mathematics and Statistics (**SUMS**) Conference, on Saturday, September 29, 2012. Keynote speakers will be **Robert Bryant**, Director of the Mathematical Sciences Institute, and **Chuck Sonenshein**, Mathematician and Magician. The schedule of talks for the conference should be available on http://www.jmu.edu/mathstat/sums/.

The SUMS Conference is attended by more than 300 people annually, from Virginia and surrounding states including New York, Kentucky, and South Carolina. The conference can offer partial travel funding to student speakers on a rolling application basis. Registration and lunch are free.

Brain Sutton (bsutton@rmc.edu) of **Randolph-Macon College** would like to collaborate on Cass, the Computer Algebra SpreadSheet. Students and researchers will be able to perform symbol mathematics using a web browser and the familiar spreadsheet metaphor.

Richmond Teacher Residency

Nominations invited for a highly selective MT program.

RTR is recruiting bright and passionate Math applicants for our next cohort, 2013-14. Nominations are invited for Math Major with 3.0 GPA and College Degree by May 2013. This is a four-year service opportunity. Students will spend their first year co-teaching with a master teacher in Richmond Public Schools (RPS) while earning a Master of Teaching (M.T.) degree from Virginia Commonwealth University (VCU). They will be well positioned to be hired as a full time middle or high school teacher in RPS starting their second year, with an additional 3 years of mentoring, leadership training, and support for National Board Certification. We offer:

- Full-year medical-style residency teaching alongside a highly trained master/mentor teacher
- Integrated graduate-level coursework resulting in a Master's of Teaching degree
- Strategic cohort placement in a high-need RPS secondary school
- $29K living stipend for math majors
- Full time salary as the teacher of record your second – fourth years in the program
- Special cohort program rate for the M.T. degree
- Full Virginia teacher licensure/certification
- Chic urban apartment living/learning experience @ reduced cost
- Comprehensive post-residency induction support from a highly trained Career Coach for 2 years
- Teacher leadership training and support for National Board Certification
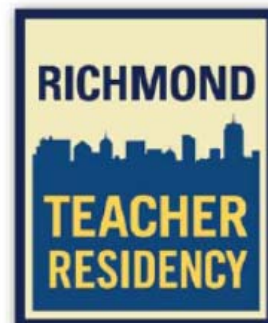
Nominating Process

Send the name of your nominee and contact information to Ann Cherry and we will do the rest.

Ann D. Cherry, Director of Recruitment
Richmond Teacher Residency
VCU School of Education
Teach4change2@gmail.com
(804) 828-0387 phone
(804) 827-0870 fax

Additional Information

www.richmondteacherresidency.info

Treasurer's Report - Brian Lins

August 22, 2012

General Account Balance,   March, 25, 2012 $4,753.33

Receipts		Expenses	
Registrations, Spring 2012	$3,037.50	Meals, Spring 2012	$2,593.15
MAA Subvention	$2,529.00	Speaker expenses	$234.21
		PayPal processing fee	$105.57
		John Smith teaching award & plaque	$314.74
		Supplies	$69.29
		Service charges	$6.00
		Mathfest representative	$250.00
		Transfer to Project NExT Fund	$2,315.96
Total Receipts	$5,566.50	Total Expenses	$5,887.96

General Account Balance, August 22, 2012 $4,431.87

John G. Milcetich Memorial Student Achievement Fund, **March 25, 2012** $1,507.68

Receipts		Expenses	
Contributions, Fall 2011	$150.00	Student talk awards	$175.00
MAA Book Sales	$559.00	Student travel	$500.00
Interest	$1.45		
Total Receipts	$710.45	Total Expenses	$675.00

John G. Milcetich Memorial Student Achievement Fund, **August 22, 2012** $1,543.13

Section NExT Fund Balance, March 25, 2012 $1,727.76

Receipts		Expenses	
From registration fees, Spring 2012	$1,027.50	Meals, Spring 2012	$740.00

Section NExT Fund Balance, August 22, 2012 $2,015.26

Project NExT Fund Balance, March 25, 2012 $185.00

Receipts		Expenses	
Contributions, Spring 2012	$290.00	Project NExT Fellowship	$2,500.00
Transfer from General Fund	$2,315.00		

Project NExT Fund Balance, August 22, 2012 $290.00

Section Officers

For complete contact information, visit our website, http://sections.maa.org/mddcva/section_officers.php

Chair - Daniel Joseph (2 year term ending 2013)
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