



Louisiana/Mississippi Section of the Mathematical Association of America

NEWSLETTER—FALL 2012
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GOVERNOR'S REPORT

I hope that fall was a great success on your campus! We had a large group of Louisiana Mississippi Section members at Mathfest in Madison, Wisconsin, back in August. We enjoyed a dutch dinner together in downtown Madison at the Great Dane Pub, in addition to all of the great sessions, speakers, and beautiful venue on Lake Monona.

I am pleased to report that our revised Louisiana Mississippi MAA Section Bylaws were approved at the Board of Governors Meeting at Mathfest. As you may recall, the primary changes were that we will be splitting the program chair and section chair duties into two positions, starting with our next election at the Spring Section meeting. We also allowed for email notification of members about proposed bylaws amendments. You can find the new bylaws in their entirety on our Section website at <http://sections.maa.org/lams/bylaws.php>

The MAA will be joining in the yearlong celebration of Mathematics of Planet Earth in 2013. You might want to check out their website at <http://mpe2013.org/> and keep an eye out for special sessions at the Joint Math Meeting and Mathfest next year focused on this topic. The MAA's own Centennial Celebration will take place in 2015 at Mathfest, which will be held in Washington, DC.

We are looking forward to a great Section Meeting this year, February 28 - March 2, 2013, hosted by Section Chair John Perry from University of Southern Mississippi in Hattiesburg, MS. Our Anderson Lecturer this year will be current MAA President-Elect Bob Devaney and our keynote speaker will be Tim Chartier of Davidson College. Leigh Ann Myers (NSU) is planning a great Section NExT Program, as always. Please help us by encouraging your new faculty to apply for Section NExT. We will have our usual Integration Bee, Student Team Competition, and more.

We are getting closer to our \$25,000 goal for the Anderson Lecture Fund. The fund, named in honor of LA MS MAA Section member and former MAA President R.D. Anderson, supports a distinguished lecturer at our annual section meeting each year. We have raised approximately \$20,000 from many generous Section and national MAA members. A donation of \$1000 (that's just \$100 from 10 people or \$50 from 20 people) is recognized as a Founding Member and a donation of \$100 as a Supporter. We would love to reach our goal by next spring's Section Meeting.

The Joint Mathematics Meeting in San Diego, January 9 - 12, 2013, is almost here! As is our custom, I would like to invite you to join your fellow LA/MS Section members for dinner (dutch treat) on **Thursday, January 10, 2013**. We will meet in the lobby of the San Diego Marriott Marquis & Marina at 6:30 p.m. If you have a favorite, let me know. There are lots of choices -- we could do something casual like Hard Rock Cafe, upscale like Morton's Steakhouse, or try for a local restaurant.

If you plan to attend JMM and interested in joining us, please send your RSVP to jenna@coes.latech.edu no later than **Friday, Dec. 21**.

As always, I would welcome any comments or suggestions that you might have for new initiatives or ways that the Section and national organization can serve you better. Feel free to email me at jenna@latech.edu or call me at 318-257-2101.

Jenna Carpenter
LA/MS Section Governor

NOMINATIONS WANTED: OUTSTANDING TEACHING AWARD

The Outstanding Teacher Award Committee seeks nominations for 2013. A completed application must accompany each nomination. A complete application consists of a nomination form, a narrative describing the nominee's extraordinary teaching success (limit 5 pages), evidence of the nominee's extraordinary teaching success (limit 3 pages), and up to five one page letters of recommendation two of which must come from the nominee's present or former students. For more details see: <http://sections.maa.org/lams/distinguished/index.php>

Completed applications must be received no later than February 8, 2013. Please send applications to:

Judith Covington
Mathematics Department
LSUS
email: Judith.Covington@lsus.edu

SECTION NExT

Are you a new faculty member within the first three years of beginning full-time employment with teaching responsibilities at the college or university level? Do you have any new faculty members in your department? **New faculty need to be Louisiana-Mississippi MAA Section Next Fellows!** Designed for new college and university faculty holding a masters or doctorate in the mathematical sciences, Section NExT (New Experiences in Teaching) is a two year professional development program that addresses the full range of faculty responsibilities including teaching, scholarly activities, and service. Each year at our Spring Section Meeting, Section NExT sponsors a

program for fellows in which the needs and concerns of new faculty can be openly discussed with a regional network of mathematicians.

Among the topics featured in the program are:

- information on current trends and innovations in undergraduate education.
- how to establish collaboration and interaction between people from the many different kinds of institutions in our section, including private colleges, state universities, liberal arts colleges and community colleges.
- activities to encourage the participation of new faculty and their students in the programs of the LA/MS Section of the MAA.

In addition, the Section NExT Program matches participants with mentors from similar institutions.

The online application (see <http://sections.maa.org/lams/next/application.html>) consists of a short personal statement and a letter of support from the department chair. Section NExT fellows will be required to attend the spring section meeting for each of the next two years. *National NExT fellows are encouraged to participate in the Section NExT activities, as well!*

Questions? Contact Leigh Ann Myers (myers@nsula.edu), Coordinator of the Section NExT Committee, or check out the Section website at <http://sections.maa.org/lams/next/>.

SECTION NEXT REUNION

All former and current Section NExT fellows are invited to attend the Section NExT program at this year's meeting to help celebrate **ten years** of Section NExT activities in our LA MS section! Watch for more information about the program in the coming months or contact Leigh Ann Myers at myers@nsula.edu for more information.

ANDERSON DISTINGUISHED LECTURE FUND UPDATE

The Anderson Lecture Fund, named in honor of LA MS MAA Section member and former MAA President R.D. Anderson, supports a distinguished lecturer at our annual section meeting each year. We have raised just over \$22,000 from many generous Section and national MAA members toward our goal of \$25,000. A donation of \$1000 (that's just \$100 from 10 people or \$50 from 20 people) is recognized as a Founding Member and a donation of \$100 as a Supporter. Help us reach our goal by the 2013 Section Meeting. Donations can be sent to Section Treasurer Leslie Horton at William Carey University, Campus Post Office Box 164, Hattiesburg, MS 39401.

MAA BRICK IN MEMORY OF DR. JOHN M. PEARSON

Dr. John M. Pearson, father of MAA Executive Director Dr. Michael Pearson, passed away in September 2012. Given Michael's long association with and dedication to both our Section and the MAA, our Section has decided to purchase an inscribed brick in memory of Dr. Pearson to be installed in the Paul R. Halmos Commemorative Walk at the Carriage House Conference Center, part of the MAA's Headquarters in Washington, DC (<http://www.maa.org/news/052307bricks.html>). If you would like to make a contribution toward this purchase, please email it to Section Treasurer Leslie Horton at William Carey University, Campus Post Office Box 164, Hattiesburg, MS 39401.

NEWS FROM AROUND THE SECTION

Jackson State University

Mokhtar Aouina was published in *Transactions of the American Mathematical Society*. His paper is entitled "The Moduli Space of Thickenings."

(Submitted by Mokhtar Aouina)

Louisiana State University

Sue Brenner gave the plenary Sonia Kovalevsky lecture at the international congress ICIAM 2011.

Hui Kuo won a Fulbright award to lecture on stochastic analysis in Tunisia.

Robert Lipton was awarded a 1+million dollar grant from AFOSR to investigate new materials used to generate high-intensity microwaves.

Ambar Sengupta was named the Hubert Butts Memorial Alumni Professor of Mathematics.

Michael Malisoff was awarded the Roy Daniels Professorship in mathematics. **Milen Yakimov** won the LSU mid-career Rainmaker award.

Prof. Emeritus **Robert Lax** retired in 2011.

New Assistant Professor **Shea Vela-Vick** works on problems in contact geometry, low-dimensional topology, knot theory and Riemannian geometry. He was a student of John Etnyre at the University of Pennsylvania, and comes to us

from an NSF-postdoc at Columbia University. In 2012 he was awarded the Chauvenet Prize for expository mathematical writing.

Anastasiia Tsvietkova (PhD. University of Tennessee) comes to LSU as a postdoctoral researcher. Her research is in low-dimensional topology and knot theory.

Anthony Polizzi (PhD. Tulane University) is working at LSU as a postdoctoral researcher. He is working with Professor Rob Lipton on an Air Force grant to design and optimize meta materials for novel high-power microwave amplifiers.

Duk-Soon Oh (PhD. Courant Institute, NYU) is a postdoctoral researcher at LSU's Center for Computatin and Technology and is an adjunct in the LSU Math Department. He works with Professor Sue Brenner on numerical solutions of PDEs using domain decomposition methods.

LSU graduating senior **Hannah Manuel**, who is a two-year veteran of this section's Student Team Competition, won a prestigious National Defense Science and Engineering Graduate Fellowship. She started graduate school this fall in mathematics at Georgia Tech.

Jordan Keller, a three-year veteran of the Student Team Competition, is starting graduate school in mathematics at Columbia. He also had offers from Cornell and Brown.

Alex Leder, a double-major in math and physics, is starting graduate study in physics at MIT.

Research postdocs earned by LSU Ph.D. graduates: Three LSU students who earned their Ph.D. this past year are starting 3-year research postdocs. **Yue Chen**, a student of

Robert Lipton, is starting a postdoc at Kentucky; **Amber Russell**, a student of Pramod Achar, is starting a postdoc at Georgia, and **Maria Vega**, a student of Dan Sage, is starting a postdoc at North Carolina State.

Starting this fall, LSU has changed our Calculus prerequisite by replacing all prerequisites for Calculus I (Math 1550) by the single requirement that a student earn a satisfactory score on the ALEKS Calculus Readiness assessment, similarly to what has been done at Illinois-Urbana and UT-Austin. Thus to take Calculus I at LSU, a student needs to score at least 70% or better on ALEKS, regardless of any credits in precalculus courses and regardless of ACT or SAT scores. Students who do not meet this requirement are purged from the course shortly before classes start. Despite some implementation concerns this summer, caused mostly by many students not bothering to take the test until the day before the purge despite numerous nag emails, the implementation of the program has run smoothly and our fall enrollment in Math 1550 is the same as it was last year. Details about the program (written for students) can be found online at

www.math.lsu.edu/ugrad/ALEKS

(Submitted by George Cochran and Robert Pearlis)

MARK YOUR CALENDARS!

The 2013 LA/MS section meeting
will be hosted by
the University of Southern Mississippi

FEBRUARY 28-MARCH 3, 2013

Louisiana Tech

Dr. Mihaela Paun and **Dr. Don Liu** were each granted tenure and promoted to Associate Professor.

Dr. Baoling Ma is a new lecturer for LouisianaTech.

Dr. Patricia Simeon retired last year.

Innovative programs underway in our department include: **Dr. Katie Evans**, a mathematics professor, will teach sections in the "Living With The Lab" freshman engineering program. **Dr. Bernd Schroeder** is piloting the "class upside down" approach, in which students come to class prepared by reading the book and watching on-line presentations, since winter 2011-12.

(Submitted by Bernd Schroeder)

McNeese State University

There have been a number of changes in the Department of Mathematics, Computer Science, and Statistics here at McNeese this year.

First, we had two retirements this year. **Mr. Sid Bradley**, the long time Mathematics Professor and Department Head, retired in July after nearly thirty years of service in the DMCS. Also retiring was Computer Science Instructor **Mr. Wayne Prestenbach** who had been an instructor since 2001.

Computer Science Professor **Dr. Bill Albrecht** became our new department head on August 1st of this year. Tragically, Bill passed away barely 3 weeks later. He had worked in the Department as an Assistant

Professor of Computer Science from 1989-1993 and returned as an Associate Professor of Computer Science in 2007. He was 51 years old and is survived by his wife, two sons and a daughter.

Dr. Karen Aucoin, Professor of Mathematics has taken over as the new department head of DMCS. Karen has been with the department since 1993 and has been a member of the section for many years.

The department was also saddened to lose two of our retired colleagues this semester **Dr. Jim Reed** and **Dr. Jane Carr**.

(Submitted by Lenny Ornas)

Mississippi State University

Mississippi State University held the 9th Annual Mississippi State- UAB Conference on Differential Equations and Computational Simulations on October 4-6, 2012.

Suzanne Shontz is a new Assistant Professor in the Mathematics and Statistics Department with a PhD, 2004, from Cornell University. She came to MS State from Pennsylvania State University in Pennsylvania. She also received a National Science Foundation (NSF) Career Award in 2011.

Russ Woodroffe is a new Assistant Professor in the Mathematics and Statistics Department with a PhD, 2005, from Cornell University. He came to MS State from Washington University in St. Louis.

Gertrude Okhuysen retired in May 2012 after working over 42 years in the Department of Mathematics and Statistics at MSU.

Mohsen Razzaghi was awarded a Fulbright Award in Romania for the 2011-2012 academic year.

Ted Dobson was a PI on the National Security Agency (NSA) award entitled "Vertex-transitive Graphs."

Seongjai Kim was a PI on the National Science Foundation (NSF) award entitled "Real-time Processing Algorithms for LiDAR Point Cloud Data."

Hyeona Lim was a PI on the National Science Foundation (NSF) award for "The 9th Mississippi State-UAB Conference on Differential Equations and Computational Simulations."

Haimeng Zhang was a PI on the National Science Foundation (NSF) award entitled "Collaborative Research: Axially Symmetric Processes and Intrinsic Random Functions on the Sphere."

(Submitted by Mohsen Razzaghi)

Mississippi University for Women

Last year, **Menuka Ban**, working on a double major in mathematics and political science, was MUW's student honoree at the Higher Education Appreciation Day, Working for Academic Excellence (HEADWAE).

As of summer 2011, **Dr. Dionne Fortenberry** is serving as the chair of the Department of Sciences and Mathematics, with **Dr. Bonnie Oppenheimer** serving as co-chair.

Dr. Shaochen Yang retired in April 2012 after 24 years of service to MUW.

We are now seeking to fill two full-time

tenure track faculty positions. Additional information can be found at <http://www.muw.edu>.

We were once again awarded funding through the Mississippi NASA Space Grant for both faculty research and student scholarships.

At the beginning of this year renovations began on the Fant Library here on campus, which has housed our mathematics lab since 2009. The mathematics lab is an integral part of our intermediate and college algebra classes. Although we have known about the renovations, they started sooner than we had expected, displacing our lab sections early in the semester. We have been roaming around the computer labs in McDevitt while we seek a more permanent solution, and hope to have a new home by the spring.

(Submitted by Joshua Hanes)

Southern University

The Department of Mathematics here at Southern University and A&M College in Baton Rouge (SUBR) is transitioning and undergoing a facelift. The department will now be referred to as the Department of Mathematics and Physics. The chair of the department for majors with a concentration in Mathematics is **Dr. Katrina Ashford Cunningham**.

The Department is engaged in major recruitment efforts in attracting undergraduates who love mathematics to pursue a B. S. in Mathematics and Physics with a concentration in Mathematics. The department engages with current undergraduates in several ways. One effort is through its annual Recruitment Day Rally during the fall semesters to encourage or persuade them to major or minor in

Mathematics. This rally took place November 7, 2012. The undergraduate mathematics advisor and contact person for this particular effort is **Dr. Deborah L. Clark**. She can be reached at 225-771-6224 or teachlearners@yahoo.com. The advisor of those desiring a Masters in Mathematics and Physics with a concentration in Mathematics is **Dr. Humberto Munoz** at 225-771-2221 or HUMBERTO_MUNOZ@subr.edu. Grants and grant writing efforts for graduate school recruits are alive and well.

The Department of Mathematics and Physics extends well wishes to **Mrs. Caroline Robins** who has chosen to join the ranks of retirees. She leaves after 33 years of service to SUBR.

Dr. Carla Cotwright-Williams, a SUBR graduate of the masters program in Mathematics of 2002, is currently one of the Congressional Fellows for 2012-2013. She was AMS' sponsored fellow. This fellowship program includes an orientation on congressional and executive branch operations, and a year-long seminar series on issues involving science, technology and public policy in Washington DC. Dr. Cotwright-Williams was the invited guest speaker of the annual initiation ceremony of LA Beta Chapter of Pi Mu Epsilon this past spring. She earned a second M.S. degree (2004) & a Ph.D. (2006) in Mathematics from University of Mississippi.

Undergraduate mathematics major, **John Pierre' LaFleur**, is the newly elected President of the LA Beta Chapter of Pi Mu Epsilon and anticipates graduation Spring 2013. LaFleur attended 2012 MathFest in Madison, Wisconsin.

CONGRATULATIONS to all three of these great mathematicians!

(Submitted by D.L. Clark)

University of Louisiana at Lafayette

University of Louisiana Lafayette has several new hires this semester.

Dr. Luis Leon Novelo, Assistant Professor, joins the department working in Biostatistics;

Dr. Fei Xue, Assistant Professor, joins the department working in Numerical Analysis;

The department also hired three Emergency Temporary Instructors: **Mr. Joshua Fontenot**, **Mr. Christopher Istre**, and **Dr. Julie Roy**.

Dr. Ping Ng has been promoted to Associate Professor of Mathematics in August 2012.

Ms. Donna Fatheree retired in August.

The Department was saddened to lose its Graduate Coordinator and one of its most prolific researchers last Spring. Our dear colleague and friend, **Professor Christo Christov**, passed away on March 16, 2012.

We also lost two retired faculty members: **Dr. Thomas Bouillion** in May and **Dr. Harvey Pousson** in August.

The department held the NSF/CBMS regional conference in the Mathematical Sciences entitled "Topological and Algebraic Regularity Properties of Nuclear C^* -Algebras" May 11-15, 2012. The conference attracted around 70 experts in this field from around the world.

The department held its annual Lloyd Roeling Conference November 2-4, 2012. The topic this year is applied mathematics and the conference is dedicated to our greatly missed colleague, Professor Christo Christov.

In addition to many active grants, the department received four new grants the details of which are listed below

1) National Science Foundation grant entitled "*Louisiana Mathematics Masters in the Middle (LaM3)*" was awarded in the amount of \$1,858,145 for 2012-2017. The project is under the direction of **Peter A. Sheppard** (Curriculum & Instruction), **Kathleen Lopez** (Mathematics), **Patricia W. Beaulieu** (Mathematics), **Christina L. Eubanks-Turner** (Mathematics).

The project represents a collaborative partnership with the University of Louisiana at Lafayette's College of Education, College of Sciences, Lafayette Parish School System, Iberia Parish School System, Vermilion Parish School System, and the Allen J Celestine Foundation. The LaM3 project aims to recruit and train an exceptional corps of 20 Master Teachers from our partner school districts whose role includes engendering excellence in teaching mathematics.

2. Title: The Cuntz Semigroup and the Classification of C^* -algebra. PI is **Leonel Robert Gonzales** Period: June 1, 2012--June 30, 2015. Agency: Board of Regents of the State of Louisiana. Amount: \$79,392.

3. Title: Aspects of Parameter Estimation in Dynamical Systems Involving Delay. PI is **Karyn Sutton**. Period: June 1, 2012 - June 30, 2015. Agency: Board of Regents of the State of Louisiana. Amount: \$89,139

4. Title: Uniform Persistence in Discrete and Continuous Dynamical Systems with Applications to Epidemic Model. PI is **Paul Salceanu**. Period: June 1, 2012 - June 30, 2015. Agency: Board of Regents of the State of Louisiana. Amount: \$60,666

(Submitted by Azmy Ackleh and Kathleen Lopez)