



# Louisiana/Mississippi Section of the Mathematical Association of America

NEWSLETTER—WINTER 2013  
Volume 35 No. 2

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## Message From the Section Chair

Dear Colleague,

This year's meeting will be held at the University of Southern Mississippi's Hattiesburg campus. I have had the pleasure of attending several of our annual Section meetings in the recent past, and now it falls to me to invite you to the 2013 meeting of the Louisiana/Mississippi Section of the MAA!

A perennial strength of the annual meeting is the large number of student activities: the integration bee, the team competition, and the paper competitions at the undergraduate and graduate levels. Students have one more reason to participate this year, as **the National Science Foundation, in collaboration with the MAA's Regional Undergraduate Mathematics Conferences program, will provide funds to offset the cost of undergraduate student participation.** This allows us both to lower the cost of student registration, and to offer travel grants to students who participate in the undergraduate paper competition.

The RUMC directed that we use most of the money for student subsistence, specifically for refreshments at the integration bee and the student luncheon. Student registration typically pays for the student luncheon, so the grant allows us to reduce student registration from \$10 to \$5; the registration fee for students at partner institutions continues to be free.

To undergraduate students who participate in the paper competition, we can present a small award to offset travel expenses. The precise amount depends on the number of students who request support, but the award will not cover a student's entire travel cost. The RUMC suggests that students use the award as leverage to request matching funds from their institutions. This may well be a one-time opportunity, so please encourage undergraduate students to participate, especially if they have worked hard on a capstone, honors, or senior project! Students who wish to apply for travel support should contact me.

## Section Officers

### Chair:

John Perry  
University of Southern Mississippi  
John.Perry@usm.edu

### MS Vice-Chair:

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sunglee@usm.edu

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lhorton@wmcarey.edu

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travis@mc.edu

### Section Governor:

Jenna Carpenter  
Louisiana Tech  
jenna@coes.latech.edu

Tim Chartier of Davidson College and Robert Devaney of Boston University have accepted invitations to speak at the meeting. Prof. Chartier will give a talk Friday morning to Section NExT, then deliver the Keynote Address Friday afternoon, with the title, "Putting a Spring in Yoda's Step". Prof. Devaney will speak on "Chaos Games and Fractal Images" at the student luncheon Friday at midday, then deliver the Anderson Lecture Friday evening, speaking on "The Fractal Geometry of the Mandelbrot Set".

Speaking of Section NExT, Dr. Leigh Ann Myers, the chair of the Section NExT committee, invites all Section NExT alumni to participate in a "homecoming" meeting, to share their experiences with new and experienced faculty alike.

As usual, our meeting will feature contributed paper sessions by faculty and Ph.D. students from around the Section. The committee encourages speakers to submit their work to the meeting's Proceedings, which are peer reviewed. This year, papers submitted to the student paper competitions will also be submitted to the Proceedings. On Friday morning, Dr. John Travis of Mississippi College will lead a workshop on the use of Sage in the classroom. If you have an idea for a workshop that you think would interest others, I will be happy to add you to the schedule. Likewise, if you'd like to haul out and dust off a poster you've used at a conference, please contact me, and I will arrange a poster session.

Rising costs at the last two meetings prompted the Committee to raise registration fees slightly: advance registration for MAA members has risen \$5, to \$35; for non-members, it has risen to \$40. In order to encourage advance registration, the late registration fee has risen \$10, to \$50. **The deadline for advance registration this year is February 15th.**

The Executive Committee has worked hard to organize a truly marvelous meeting, but there is not enough room in this letter to provide all the details. I have done my best to summarize them; for details on locations, lodging, and the rest, please visit the Section website, at

[sections.maa.org/lams/meeting/index.php](http://sections.maa.org/lams/meeting/index.php) .

I look forward to seeing you at the meeting! Do not hesitate to contact me if you have questions or concerns.

John Perry

## Governor's Report

It was great to see quite a few of our Section members at the Joint Mathematics Meeting in San Diego in January. It was a great (if chilly!) time and I hope that you are making plans to attend a great Section Meeting in Hattiesburg, MS, on February 28 – March 2, 2013. We are fortunate to have two outstanding speakers this year. I strongly urge you to make every effort to not only attend the Section Meeting yourself, but also to bring some students and faculty from your institution with you to hear these distinguished mathematicians. First, Dr. Tom Chartier from Davidson College will give the Invited Address on Friday afternoon. He will speak on “Putting a Spring in Yoda’s Step”. I was fortunate enough to hear Tim give an excellent talk at the Joint Math Meeting in San Diego as one of the MAA Invited Addresses. We also have incoming MAA President Bob Devaney from Boston University as our Anderson Distinguished Lecturer on Friday evening and he will talk on “The Fractal Geometry of the Mandelbrot Set”. Bob was the MAA Hedrick Lecturer in 2010 and is an award-winning writer and outstanding speaker. The Anderson 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 are very close to our goal of \$25,000, thanks to the support of many generous Section and national MAA members. Let’s make it our goal to reach the \$25,000 mark by our Section Meeting.

While it is hard for me to believe, this year marks the 10<sup>th</sup> Anniversary of our Section NExT Program, so look for some special activities this year from Section NExT. In particular, if you have been one of our Section NExT Fellows or Mentors over the last ten years, we would like to extend a special invitation to you to participate again in the Section NExT activities at this year’s meeting.

As always, encourage your students to sign up for the Integration Bee and Student Team Competition. Talk to your students about presenting a Student Paper. Nominate your new faculty for the Section NExT Program. Bring

faculty and students from your institution with you to hear our distinguished speakers. Volunteer for a Committee. Give a talk yourself! Buy a ticket to the Anderson Lecture (and maybe designate something extra as a donation for the Anderson Fund!?!). Nominate a colleague for the Outstanding Teaching Award. Our Section (one of the most active in the MAA!) is only as good as its members. Take advantage of this great resource by participating, encouraging others at your institution to join, and giving back.

Time really does fly. This will be my last Section Meeting as your Governor. We will have an election this spring and a new governor will assume their duties July 1. I appreciate so much the opportunity to represent and serve you the past three years in this role. Together, we have accomplished much, from adopting new, revised bylaws to (almost) raising enough funds to endow the Anderson Fund. 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](mailto:jenna@latech.edu) or call me at 318-257-2101.

Jenna Carpenter  
LA/MS Section Governor

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## 2012 Distinguished Teaching Award



Judith Covington is an associate professor of Mathematics at Louisiana State University Shreveport. She received her B.S. in Mathematics Education from Northwestern State University in Louisiana in 1985. She received her M.S. from University of Louisiana Lafayette

in 1985 where her thesis *Medial Rings* was done under the supervision of Dr. Henry Heatherly. She received her Ph.D. in 1993. Her dissertation was titled *Protopological Groups* and was completed under the supervision of Dr. Vic Schneider and Dr. Bradd Clark. As you can tell, all of Judith's education took place in the section! Judith joined the mathematics faculty at LSUS in August 1993.

Judith has been a member of MAA for many years. In 1994, Judith was selected as one of the first group of Project NExT Fellows. Since that time, Judith has become an active member of the national organization. Judith's first committee assignment for MAA was as a member of the Committee on the Mathematical Education of Teachers. She served two terms (six years) on this committee and the last two years she served as the committee co-chair. Judith has also served the MAA as a member of the Board of Governors as the Teacher Education representative, a member for the Articulation Committee (two terms), a member of the Council on Outreach programs, a member of the MAA-NCTM Committee on Mutual concerns, as well as an additional term on the Committee on the Mathematical Education of Teachers. Judith has served as a member of the Project NExT leadership team since 1997 and is currently one of three Associate Directors for Project NExT.

During the summer of 2009 Judith learned of the American Institute of Mathematics sponsored workshop on Math Teachers' Circles and this fit with her interest in working with middle school teachers. In 2010 she formed a team of five local educators and attended a workshop on How to Run a Math Teachers Circle. In the fall of 2010, she began the North Louisiana Math Teachers Circle (NLMTC) for middle school teachers in north Louisiana. Through all measures, this has been a resounding success. While the first event attracted 45 local teachers, regular attendance is now averaging about 26 per event.

Math Teachers Circles are gatherings for middle school teachers. The North Louisiana Math Teachers Circle started in earnest with an intensive week long summer workshop. There were 30 local middle school teachers in

attendance that spent four days, seven hours per day, working on interesting mathematics problems. These workshops are not pedagogical, but focus on having the classroom teachers actually do mathematics for themselves. After the summer workshop, monthly meetings are held on Monday evenings. Each event starts at 5 pm with a catered supper and then the teachers spend two and a half hours working on mathematics. The average attendance at the NLMTC events is 26, while the national average is 15 to 20. Judith created the NLMTC and is the director and does all of the planning for the events. As a result of her involvement and creation of the NLMTC, the local National Council of Teachers of Mathematics affiliate, the Northwest Louisiana Mathematics Association, presented Judith with the Champions for Mathematics Education award in February 2012.

While working with teachers has been Judith's primary focus, she simply loves teaching all courses. Her focus is to help ALL students learn that mathematics is important in all areas of life. Judith believes that all of her work, classroom teaching, working with Project NExT and directing the North Louisiana Math Teachers circle, is all connected to her passion for teaching. There is nothing like seeing someone master new material, whether it is a freshman in college or a middle school teacher with 20 years of experience. While others may have moved up to positions in administration, Judith is happiest in the classroom teaching.

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### **Call for Nominations for the LA/MS MAA Section Distinguished 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

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### Call for Papers

Several contributed paper sessions will be held in conjunction with the Spring section meeting. For any faculty or doctoral student interested in presenting a talk, send your name, school, title of talk and a short abstract (50 words or less) to Dr. John Perry, john.perry@usm.edu. Abstracts should be submitted electronically as an email attachment in Microsoft Word or PDF format. The deadline for submission of abstracts is **February 21, 2013**.

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### Call for Student Papers

The LA/MS Section of the MAA will hold its annual Student Paper Competition at the Spring section meeting. Papers are solicited in two categories: graduate and undergraduate. The graduate category is limited to master's students. Ph.D. students are encouraged to submit for the contributed paper sessions listed above. Presentations at the meeting will be limited to 12 minutes.

Send your name, school, and a short abstract (50 words or less) to the chair of the Student Paper Committee. A written paper of 6 pages or less must be received and include the author's name, institutional affiliation, faculty advisor and an e-mail address. Late entries will not be considered.

Contact the Student Papers Committee Chair or the Rules for Student Papers for more details. Additional information is available on the section website at

<http://sections.maa.org/lams/meeting/studentpapers.html>

The deadline for submission of student abstracts and papers is **February 18, 2013**.

Prizes will be awarded in each category separately, with no more than 3 prizes in each. The number of prizes awarded shall be at the discretion of the judges, and shall be determined depending on the number and quality of the entries in each category. Each entry will be judged on the basis of both the written and oral presentation, with equal consideration given to both.

This year students who submit papers for the Undergraduate Paper Competition can receive a partial reimbursement of travel costs. For details, contact the Section Chair Dr. John Perry, john.perry@usm.edu.

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### 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](mailto:myers@nsula.edu)), Coordinator of the Section NExT Committee, or check out the Section website at:

<http://sections.maa.org/lams/next/>.

Deadline for receipt of applications for the 2013-2014 Section NExT Fellow selection is February 21, 2013

Make your reservation now  
for the banquet Friday evening  
at Oddfellows Gallery

R. D. Anderson Lecture to be given  
by Robert Devaney



## Integration Bee

The annual integration bee will be held on February 28 from 6:30 – 9:00 p.m. Each institution may register up to 6 undergraduate students, and registration will be limited to 50. The deadline for registering is **February 21, 2013**. For more information, see the section website (<http://sections.maa.org/lams/meeting/IntegrationBee/IntegrationBee.html>), or contact Dr. Randy Wills ([rwills@selu.edu](mailto:rwills@selu.edu)).

## Student Team Competition

The student team competition will be held at the Spring Section Meeting on **Friday, from 8:30 – 11:00 a.m.** Sponsors, be sure to have your teams ready to check in on time on Friday morning.

### CONTEST RULES

1. Each institution may send at most two teams, each team consisting of at most four students. The four students within one team may work together on problems. Students may not get help from people on other teams, even if from the same school.
2. Participants must be undergraduate students and currently enrolled at the institution they represent. This means that the student has not yet earned a bachelor's degree--exceptions for students who are returning back to school to pursue a second bachelor's degree when the first degree was not in a mathematical area may be considered. A student from abroad who has completed training equivalent to an American bachelor's degree and who is taking solely



graduate-level courses in a graduate program will be ineligible.

3. Each team must have a faculty sponsor.
4. Calculators comparable to the TI-85 without a symbolic manipulator will be allowed. Calculators with a symbolic manipulation capability, such as the TI-92 or TI-89+, are not allowed.
5. The contest will last 2 hours.
6. The Competition Committee is solely responsible for interpreting the rules and for ruling on any unforeseen situation.
7. Cash prizes will be awarded for 1<sup>st</sup> place, 2<sup>nd</sup> place, and 3<sup>rd</sup> place teams.

### CONTEST PROBLEMS

The contest will consist of 2 groups of problems. Each team may choose any 5 problems from Group II.

Each problem will be worth 10 points. The problems are from the following areas:

#### **Group I**

*Ten mandatory problems*

Calculus (5 problems)  
 Abstract Algebra (1 problem)  
 Advanced Calculus (1 problem)  
 Differential Equations (1 problem)  
 Discrete Mathematics (1 problem)  
 Linear Algebra (1 problem)

#### **Group II**

*Choose any 5 problems*

Abstract and Linear Algebra (2 problems)  
 Advanced Calculus (2 problems)  
 Differential Equations (1 problem)  
 Multivariable Calculus (1 problem)  
 Geometry (1 problem)  
 Point-Set Topology (1 problem)  
 Probability/Statistics (1 problem)  
 Set Theory/Logic (1 problem)

To register a team (or teams), please fill out the online application form located at

[http://sections.maa.org/lams/meeting/StudentCompetitions/compform\\_online.html](http://sections.maa.org/lams/meeting/StudentCompetitions/compform_online.html)

by **February 21, 2013**, if possible (late registrations are accepted).




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### **Hotel Information**

*The cutoff date for these special rates is February 10th!*

#### **The Courtyard**

- 601-268-3050
- 118 Grand Drive, Hattiesburg
- \$99 for a room w/2 Queens or 1 King
- make reservation and mention the "MAA" group

#### **Baymont**

- 601-264-8380
- 123 Plaza Drive, Hattiesburg
- \$75 for a room w/2 Queens or 1 King
- free hot breakfast daily
- make reservation and mention the "USM MAA" group

#### **Hampton Inn**

- 601-264-8080
- 4301 Hardy Street, Hattiesburg
- \$89 for a room w/2 Doubles or 1 King
- free hot breakfast daily, lasagna Thursday at Manager's reception (5:30-6:30p)
- make reservation and mention the "MAA" group

Louisiana/Mississippi Section of the Mathematical Association of America  
90<sup>th</sup> Annual Meeting  
Tentative Schedule of Events

**Thursday, March 1**

- Registration: 6:00 – 8:00 pm, Third Floor, Cochran Center
- Integration Bee: 6:30 – 9:00 pm

**Friday, March 2**

- Registration: 8:00 am – 4:00 pm, Third Floor, Cochran Center
- Poster Exhibition: 8:00 am – 4:00 pm
- Student Team Competition: 8:30 – 11:00 am
- Section NExT: 8:30 – 9:45 am
- Workshops and Panels: 10:00 – 11:00 am
- Exhibits: 10:00 am – 4:00 pm
- Section NExT Luncheon: 11:15 am – 12:30 pm
- Student Luncheon: 11:15 am – 12:30 pm
- Plenary Session: 1:00 – 2:15 pm
- Student Paper Competition: 2:30 – 5:00 pm
- Contributed Papers: 2:30 – 5:00 pm
- Banquet and R.D. Anderson Lecture: 6:00 – 9:00 pm

**Saturday, March 3**

- Registration: 8:00 – 11:00 am, Third Floor, Cochran Center
- Exhibits: 8:00 – 11:00 am
- MAA Liaison Breakfast: 8:00 – 9:00 am
- Contributed Papers: 9:00 – 11:00 am
- Outstanding Teacher Address: 10:00 – 11:00;
- Business Meeting: 11:15 am – 12:15 pm
- Executive Committee Lunch and Meeting: 12:30 – 1:30 pm





Louisiana/Mississippi Section of the Mathematical Association of America  
2013 Annual Meeting

February 28<sup>th</sup> – March 2<sup>nd</sup>  
University of Southern Mississippi

Registration Form

Name: \_\_\_\_\_  
(as it should appear on your name tag)

Affiliation: \_\_\_\_\_  
(as it should appear on your name tag)

Email: \_\_\_\_\_

\_\_\_\_\_ Registration fee:     Advance, MAA member: \$35  
                                  Advance, non-MAA member: \$40  
                                  Late Registration: \$50 (after February 15, 2013)  
                                  Student: \$5  
                                  Student of partner institution: **Free**  
                                  See <http://sections.maa.org/lams/institutional.partners.html> for a list

\_\_\_\_\_ I would like to attend the workshop, “Using Sage in the Classroom”  
      \_\_\_\_\_ I am bringing my own laptop

\_\_\_\_\_ Institutional Partnership = \$75

\_\_\_\_\_ Banquet and R. D. Anderson Lecture: Dr. Bob Devaney  
                                  Faculty: \$25 per plate, \$5 will go to the R. D. Anderson Fund  
                                  Student: \$20 per plate

\_\_\_\_\_ Liaison’s Breakfast (Please check if you are a liaison and will be attending the breakfast – March 1st, 8 am)

\_\_\_\_\_ Contribution to support student activities

\_\_\_\_\_ **Total**

Please make check or money order payable to LA/MS Section of MAA

Mail to: John Perry  
          Department of Mathematics, Box 5045  
          University of Southern Mississippi  
          Hattiesburg, MS 39406-0001

**The Committee on Sections is requesting that section secretaries answer specific questions in the annual section report. To assist our secretary in collecting this data, please make the appropriate selections regarding membership in the national MAA organization and regarding your current institutional affiliation. (Check all that apply.)**

\_\_\_\_\_ College/University Faculty  
          Please select the highest mathematics degree offered at the institution where you currently teach  
          \_\_\_\_\_ Associate’s           \_\_\_\_\_ Bachelor’s           \_\_\_\_\_ Master’s           \_\_\_\_\_ Doctorate

\_\_\_\_\_ High School Teacher           \_\_\_\_\_ Business/industry/government employee           \_\_\_\_\_ Retired/Emeriti

\_\_\_\_\_ High School student           \_\_\_\_\_ Undergraduate student           \_\_\_\_\_ Graduate student



**INSTITUTIONAL PARTNERSHIP APPLICATION  
FOR THE  
LOUISIANA-MISSISSIPPI SECTION OF THE MAA**

Cost per academic year: \$75

NAME OF INSTITUTION: \_\_\_\_\_

CONTACT PERSON: \_\_\_\_\_

CONTACT PERSON ADDRESS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONTACT PERSON E-MAIL: \_\_\_\_\_

CONTACT PERSON FAX: \_\_\_\_\_

Benefits of Institutional Partnership:

- Registration for their students at no additional cost for the annual section meeting
- Display space to promote the institution's graduate program at the section meeting

Make checks payable to: LA/MS SECTION OF THE MAA

Send completed form and check to the current section Chair:

John Perry  
Department of Mathematics, Box 5045  
University of Southern Mississippi  
Hattiesburg, MS 39406