

# Louisiana/Mississippi Section of the Mathematical Association of America 

## NEWSLETTER—WINTER 2008

Volume 30. No. 2

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Message from the Section Chair and Vice Chair
Dear Section Members:
Happy New Year! We would like to take this time to invite you and your departments to the 2008 meeting of the Louisiana/Mississippi Section of the MAA. This year's meeting will be held 28-29 February and 1 March on the campus of McNeese State University in Lake Charles Louisiana.

The meeting will feature a student team competition, an integration bee, and a student paper contest, all with cash prizes. For our invited talks we will have Dr. Martha Siegel, Secretary for the National MAA giving the plenary talk. The student luncheon talk will be given by Ms. Bobbie Swan of NASA from the Johnson Space Center. Also, we will have a Cajun Seafood Banquet Friday Night as well as all the traditional section activities.

Registration, hotel, and meeting information can be found at the official http://maa.mc.edu/meeting website or by contacting Lenny Ornas, gornas@mcneese.edu or Christine Gorton cgorton@mcneese.edu.

See you in February
Lenny Ornas
Christine Gorton

## Section Officers

Chair: Lenny Ornas<br>McNeese State University gornas@mcneese.edu

LA Vice-Chair: Christine Gorton<br>McNeese State University cgorton@mcneese.edu

MS Vice-Chair: Tommy Leavelle
Mississippi College
leavelle@mc.edu

Secretary/Treasurer: Judith Covington LSU-Shreveport<br>JCOVINGT@pilot.lsus.edu

Newsletter Editor: Clifton Wingard<br>Delta State University cwingard@deltastate.edu

Immediate Past Chair: Seth Oppenheimer Mississippi State University seth@math.msstate.edu

Internet Coordinator: John Travis Mississippi College travis@mc.edu

Section Governor: John Travis<br>Mississippi College<br>travis@mc.edu

## 2007 OUTSTANDING TEACHING AWARD



Dr. Galen Turner received his B.S. from Loyola University (New Orleans) with majors in Mathematics and Religious Studies in 1992. He was a member of Pi Mu Epsilon and was awarded the Pi Mu Epsilon award in mathematics during his senior year. In addition, he was honored when the Journal of Theta Alpha Kappa, the National Honor Society for Religious Studies/Theology, published his undergraduate thesis on Children in the Hebrew Bible. He continued his studies in Mathematics at Louisiana State University where he earned his M.S. in Mathematics in 1994, and his Ph.D. in 1999. He has spent the last seven years at Louisiana Tech University where he currently serves as Program Chair for Cyberspace Science and Engineering and the Maxfield Professor of Mathematics and Statistics. Dr. Turner has served on several MAA committees at the section level including the Executive Committee where he served as Louisiana Vice Chair of the section in 2005-06. He has taught courses at all levels, from the most basic undergraduate courses in algebra to graduate courses in algebra, graph theory and combinatorics. He has published in a number of areas including Engineering Education as well as graph and matroid theory.

Dr. Turner has been recognized as an effective teacher of mathematics since his earliest days of teaching at LSU. While at LSU, he received the graduate student teaching award four times (each year it existed) from the Mathematics Department and was given the Alumni Association's Graduate Teaching Award in 1998 - this is the only university-wide award that recognizes excellence in teaching by graduate students. Beginning his tenure-track career at Stephen F. Austin State University, Dr. Turner quickly became a leader in course development. Moving to Louisiana Tech, he continued to develop courses for the mathematics program that served both the needs of the undergraduates as well as those in other disciplines, like Computer Science, Engineering, and Education. He has been quite successful in recruiting students to take courses in combinatorics and algebra by bridging the gap between disciplines through research efforts, but always with a teaching stream in mind. "Recruit minors to mathematics," he says, "and you won't have to worry about the majors." Developing courses that showcase how mathematics lays a foundation for other disciplines has been a major focus for Dr. Turner at Louisiana Tech. His ability to reach students where they are, challenging them to think, write, and communicate more clearly, are just a few of the qualities that stand out among his students' comments.

While at Louisiana Tech, Dr. Turner has influenced mathematics education at both the university and regional level. At the university level, Dr. Turner has been a leader in Louisiana Tech University's Integrated Engineering Curriculum, having served for 4 years on the Leadership Team for Undergraduate Programs within the College of Engineering and Science. He has been successful at writing numerous grants and serving as the lead mathematics PI on a number of National Science Foundation awards in recent years. The most recent of these was awarded through the Robert Noyce Scholarship Program, a program that seeks to increase the number of qualified STEM teachers in our K-12 systems. He also serves as the mathematics PI on an NSF-STEP and S-STEM project, where the aim is to increase exposure to and interest in STEM majors. One of the
successful aspects of these projects is the development of a Freshmen Enrichment Program that introduces students to college life through a living and learning community centered on STEM. This program's success builds upon the Integrated Curricula at Louisiana Tech in that students enter a program during the summer prior to their Freshman year and are part of a new living and curricular infrastructure put in place within the past two years. Dr. Turner is part of a team of faculty who jointly lead the program, his role being the primary instructor for a contextual based college algebra course and the mathematical content leader for the hands-on engineering projects in the summer.

At the regional level, Dr. Turner has been very involved with professional development for K12 teachers and activity weekends for their students. As part of the NSF-STEP project mentioned above, Dr. Turner serves as the lead mathematics PI on the grant and works with a team of faculty to develop meaningful engineering activities for High School teachers and their students that showcase the mathematics and science that the teachers teach in their classrooms everyday. This project seeks to establish a long-term relationship between teachers and university faculty as well as give High School teachers applications for the subjects they teach. Finding practical applications for High School mathematics seems overwhelming for some teachers, and this project alleviates this feeling among the participants. Further, a number of students who have participated in the project have enrolled at Louisiana Tech, some of them currently serving as student mentors in the program. These numerous roles related to teaching were a key part of his being named as Program Chair for Cyberspace Science and Engineering at Louisiana Tech. This is an emerging area of national need and is one that cuts across many different disciplines. Dr. Turner's experience in integrating programs, curricula development, research, and teaching, have put him in a position to help facilitate the development of this program to serve our region and the nation.

## Call for Nominations for the LA/MS MAA Section Outstanding Teaching Award

The Outstanding Teacher Award Committee seeks nominations for 2008 . We need you to nominate your deserving colleagues for the Section Distinguished Teaching Award!! Recipients of this award also serve as the section's official nominee for the MAA's Haimo Award. The amount of work required to nominate someone is pretty minimal so please consider following through on this today. The deadline for submissions is February 15, 2008.

Nominations may be sent to Galen Turner at: gturner@coes.latech.edu

More information, including the nomination form, can be found on the LA/MS MAA Section website at:
http://maa.mc.edu/distinguished/index.php
Eligibility:
In order to be considered eligible for this award, a nominee must satisfy each of the following criteria:

1. Any nominee must be a college or university teacher assigned at least halftime during the academic year to teaching a mathematical science in a public or private college or university (from twoyear college teaching through teaching at the Ph.D. level) in the United States or Canada. Those on approved leave (sabbatical or other) during the academic year in which they are nominated qualify if they fulfilled the requirements in the previous year.
2. Any nominee must have at least 5 years of teaching experience in a mathematical science.
3. Any nominee must be a member of the Mathematical Association of America.

## Nominees will be judged on the following criteria:

1. Is the nominee widely recognized as extraordinarily successful in teaching?

Teaching can be interpreted to be more than classroom teaching. It could also include activities such as preparing students for competitions, attracting students to become majors in a mathematical science or to become Ph.D. candidates, etc.
2. Has the nominee's teaching effectiveness been well documented?
3. Has the nominee had an influence in teaching beyond his/her own institution(s)? This can take on many forms such as making a lasting impact on alumni, providing influence on the profession through curricular revisions in college mathematics teaching, making contributions to influential innovative books on the teaching of college mathematics, etc.
4. Has the nominee fostered curiosity and generated excitement about mathematics in his/her students?

## To submit a name to the committee:

In order to be considered, nominations must be submitted on the Nomination Form. If you need a copy of the Nomination Form, you may get a copy of it from our section's webpage. Completed nomination packets should be sent to the Committee Chair. For consideration, a complete nomination packet must be received by the deadline.

## Section NExT

The Section NExT Committee is pleased to announce the new Section NExT Fellows for this year. They are Dhruba Adhikari of Mississippi University for Women, Tiffany Andrus of McNeese State University, Christine Gorton of McNeese State University, Leslie Horton of Delta State University, Michael Muffaletto of McNeese State University, and Mark Thompson of Northwestern State University. These new Section NExT Fellows are joined by the Fellows from last year Don Liu of Louisiana Tech, John Perry of the University of Southern Mississippi, and Phillip

Reppel of Delgado Community College. The Section NExT program will begin with a welcome dinner on Thursday evening. The program will continue on Friday morning with special sessions including one on innovations in teaching. Dr. Johnny Lott of Ole Miss will be the featured speaker for Section NExT this year.

## 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 the Section Vice-Chair, Dr. Christine Gorton (cgorton@mcneese.edu). Abstracts may be submitted electronically as an email attachment in WordPerfect, Microsoft Word, or PDF format. The deadline for submission of abstracts is February 15, 2008.

## 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 4 undergraduate students, and registration will be limited to 50 . The deadline for registering is February 15. For more information, see the section website (http://maa.mc.edu/meeting/IntegrationBee/integ ration_online.html), or contact Dr. Randy Wills (rwills@selu.edu).

## 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 Dr. Alexandru Scorpan. Abstracts and papers should be submitted electronically to Dr. Scorpan (scorpan@mcneese.edu) as an email attachment in PDF (preferred), DVI, LaTeX, or Microsoft Word. The deadline for submission of abstracts is February 15, 2008.

A written paper of 6 pages or less must be received and include the author's name, institutional affiliation, faculty advisor and an email address. Late entries will not be considered. Contact the Student Papers Committee Chair or the Rules for Student Papers for more details.

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. The amount of the prizes shall be as follows: first prize, $\$ 100.00$, second, $\$ 75.00$, and third, $\$ 50.00$.

Each entry will be judged on the basis of both the written and oral presentation, with equal consideration given to both.

## Student Paper Competition

The LA-MS Section of the MAA will hold it annual student Paper Competition at the Spring Section meeting. Send an electronic abstract and an electronic copy to Dr. Alexandru Scorpan (scorpan@mcneese.edu) by February 15.

- There are two categories of papers: graduate and undergraduate. The graduate category is limited to master's students. Ph.D. students are encouraged to submit for the contributed paper sessions.
- Presentations at the meeting will be limited to 12 minutes.
- A written paper of 6 pages or less must be received and include:
- author's name
- institutional affiliation
- faculty advisor


## - email address

- 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.
- The amount of the prizes shall be:
- For undergraduate papers:
- first prize, $\$ 100.00$
- second, $\$ 75.00$
- third, $\$ 50.00$.
- For graduate papers:
- first prize, $\$ 100.00$
- second, $\$ 75.00$
- third, \$50.00.
- Each entry will be judged on the basis of both the written and oral presentation, with equal consideration given to both.
- All graduate papers are eligible for the graduate prizes.


Register today for the Section Meeting! Come visit with long-time friends and make new friends. Share ideas and experiences.

## Student 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 $1^{\text {st }}$ place $(\$ 100), 2^{\text {nd }}$ place $(\$ 75)$, and $3^{\text {rd }}$ place $(\$ 50)$ 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 application and return by February 15 2008, if possible (late registrations are accepted). Or, use the online application form located at http://sandbox.mc.edu/~travis/maa/compform_o nline.html

## Consider a Contribution in Support of LA/MS Student Activities.

The student activities include

- Integration Bee
- Student Team Competition
- Student Luncheon
- Student Paper Sessions


## HOTEL INFORMATION

To reserve a room for the meeting at any of these hotels, please mention the McNeese MAA Conference.

## The Wingate Inn

300 Texaco Road in Sulphur, Louisiana (337-527-5151).
$\$ 89$ per night, plus taxes
This hotel is twelve miles from campus and the rooms must be reserved by 14 February.

## The Sleep Inn \& Suites

3231 E Prien Lake Rd in Lake Charles
(337-480-0898)
$\$ 80$ per night plus taxes for standard king or double rooms
$\$ 85$ per night plus taxes for a suite
This hotel is about five miles from campus, and the rooms must be reserved by 14 February.

The Microtel Inn \& Suites
3231 Lake Street in Lake Charles
(337-477-4230).
Doubles at $\$ 90$ a night plus taxes
$\$ 80$ for a single
$\$ 100$ for a suite plus taxes, depending on availability
Be sure to mention the MSU MAA
Conference to get these rates.
This hotel is about three miles from campus and rooms must be reserved by 14 February.

For more information or if you have questions, contact Lenny Ornas, the section chair. Please be sure to abide by the reservation deadline in order to receive the conference rate.

Be sure to make your reservation for the Cajun Banquet on Friday evening

Crawfish Etouffee
Chicken and Sausage Gumbo

## A Note about Our Main Speaker

Dr. Martha Siegel will be the main speaker at our upcoming section meeting. Dr. Siegel received her BA in mathematics from Russell Sage College, and she received her PhD in stochastic processes from the University of Rochester. Following her graduate studies, she held a post doctoral fellowship at the School of Hygiene and Public Health at Johns Hopkins University where she studied operations research and mental health. She lists among her interests mathematical models, applied probability, and college mathematics curriculum reform.

Dr. Siegel is a Professor of Mathematics at Towson University where she has been teaching in the Department of Mathematics since 1971. While at Towson, she has been recognized for her outstanding service to the university and her profession. She has been active in faculty governance at Towson University, and she has also been active in the University System of Maryland as a representative to the Council of University System Faculty and has served this organization as chairperson twice.

Dr. Siegel has co-authored two books, Finite Mathematics and Its Applications and Functioning in the Real World.

Martha Siegel has been quite active in the Mathematical Association of America. She served as editor of Mathematics Magazine from 1991 to 1996, and she has been on the Executive Committee since 1991. She was elected Secretary of the Mathematical Association of America in 1996 and is currently serving in this position.

## A Note about the Student Luncheon Speaker

The featured speaker at the Student Luncheon will be Ms. Bobbie Swan. Ms. Swan is a 1984 graduate of McNeese State University; she earned a Bachelor of Science degree in Computer \& Information Sciences.

In January 1985, Ms. Swan began her professional career at NASA Johnson Space Center (JSC) in the Mission Operations

Directorate (MOD) as a Data Processing System/Navigation Crew Training Instructor, advancing in four years through training positions. In 1989, Ms. Swan accepted a position in the Orbiter Project Office/Space Shuttle Program as a Mission Evaluation Room Manager leading a team of design engineers providing around the clock real-time support to the launch and flight control teams during missions. She served in this position for ten years supporting approximately 67 Shuttle flights. In 1999, Ms. Swan was Technical Assistant to the Director, in the Flight Crew Operations Directorate, which oversees the astronauts and aircraft at Ellington Field. As Technical Assistant, Ms. Swan documented and implemented new processes, and successfully represented Flight Crew Operations at all levels. She was appointed the Flight Crew and Mission Operations Lead for the JSC Independent Technical Authority. She was instrumental in leading the agency through the many, diverse phases of technical authority and was appointed the Agency's first Technical Authority Manager. Ms. Swan transitioned from Flight Crew Operations and set up Technical Authority in the Engineering Directorate where she was also named Deputy Manager, Program Engineering Integration Office. Recently, Ms. Swan accepted the appointment of Manager, Portable Equipment and Pyrotechnics Office in the Constellation Program.

She is a member of the NASA Engineering and Safety Center Human Space Flight Operations Team, past member of the Science Advisor Program, and the JSC Recruiting Team. Special assignments at Johnson Space Center include chairing the committee to develop the JSC New Employee Program and serving as Deputy Chair of Inspection 98.

Ms. Swan has been honored for her accomplishments, and she has received numerous Superior Accomplishment Awards, Exceptional Achievement Awards, and Outstanding Performance Awards. She has received a Silver Snoopy Award, and early in her career, she was named the Flight Data and Evaluation Office Employee of the Year. (Excerpts of this biography have been copied from Ms. Swan's official NASA biographical profile.)


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$\varsigma I: Z I-\varsigma I: I I$
$00: I I-00: 0 I$
$00: I I-00: 8$
$00: I I-00: 8$
$0 \varepsilon: 8-0 \varepsilon: L$
$00: 6-0 \varepsilon: 9$
$s_{t}: t-s_{t}: 乙$
$s_{t}: \hbar-s_{t}: 乙$
$0 \varepsilon: 乙-\varsigma_{I}: I$

## STUDENT COMPETITION REGISTRATION FORM

Name of Institution: $\qquad$
Name(s) of Faculty Sponsor: $\qquad$
Faculty Sponsor E-mail: $\qquad$

Names and Classifications of Team Members

## TEAM I

|  | NAME | CLASSIFICATION |
| :--- | :--- | :--- |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |

TEAM II

|  | NAME | CLASSIFICATION |
| :--- | :--- | :--- |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |

*** You may also register by sending the above information by fax or e-mail to Vic Schneider
Email: vps3252@louisiana.edu
Mathematics Department
University of Louisiana at Lafayette
P. O. Box 41010

Lafayette, LA 70504-1010
Phone \#: (337) 482-5295
Fax \#: (337) 482-5346

## Louisiana/Mississippi Section of the Mathematical Association of America



2008 Annual Meeting
February 28 - March 1, 2008
McNeese State University
Registration Form
Name:
(as it should appear on your name tag)
Email: $\qquad$

Affiliation: $\qquad$
(as it should appear on your name tag)
$\qquad$ Registration fee: $\quad$ Regular Advance $=\$ 25$
Late Registration $=\$ 30$ (after February 15, 2008)
Student $=\$ 5$
Free Student (Student registration is free for students from departments which are Institutional Partners of the Section)
$\qquad$ Institutional Partnership $=\$ 50$
$\qquad$ T-Shirt: $\$ 15$ each. Please indicate the quantity of each size ordered.
$\qquad$ L XL XXL XXXL
$\qquad$ Department Chairs Luncheon - $\$ 10$ per plate. \# tickets needed: $\qquad$
11:30am - 12:30 pm - Friday, February 29
$\qquad$ Cajun Banquet - \$12 Faculty; \$10 Student - Friday evening, February 29
$\qquad$ Liaison's Breakfast (Please check if you are a liaison and will be attending the breakfast - March 1, 7:30 am)
$\qquad$ Contribution to support student activities
$\qquad$ $=$ Total
Please make check or money order payable to LA/MS section of MAA
Mail to: Lenny Ornas
Kirkman Hall, Beauregard Drive
Box 92340, MSU
Lake Charles, LA 70609
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.)
__ MAA member $\qquad$ Non-MAA member
$\qquad$ College/University Faculty (Please select the highest mathematics degree offered at your institution)
$\qquad$ Associate $\qquad$ Bachelors $\qquad$ Masters $\qquad$ Doctorate
$\qquad$
$\qquad$ Business/industry/government employee
$\qquad$ High School student $\qquad$ Undergraduate student $\qquad$ Graduate student


## INSTITUTIONAL PARTNERSHIP APPLICATION FOR THE <br> LOUISIANA-MISSISSIPPI SECTION OF THE MAA

Cost per academic year: $\$ 50$
NAME OF INSTITUTION: $\qquad$

CONTACT PERSON: $\qquad$

CONTACT PERSON ADDRESS:
$\qquad$
$\qquad$
$\qquad$

CONTACT PERSON E-MAIL: $\qquad$

CONTACT PERSON FAX: $\qquad$

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:
Lenny Ornas
Kirkman Hall, Beauregard Drive
Box 92340, MSU
Lake Charles, LA 70609

