

LA/MS SECTION
Mathematical Association of America



Newsletter
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Message from the Section Chair and Vice Chair

Dear Section Members:

We have been hard at work planning the Spring 2006 Section Meeting which is scheduled for February 16 – 18, 2006, on the campus of Louisiana Tech in Ruston, Louisiana! Both the faculty in the Math Department at Tech, as well as the Section Executive Committee and other dedicated volunteers in our section have pitched in to make this a great conference!

MAA President Carl Cowen will be our featured speaker for the conference with a talk entitled “Connections Between Math and Biology”. Dr. Aparna Higgins will be our Section NExT/Project ACCESS Speaker, as well as the speaker at our Student Luncheon on Friday.

This year, we have a full slate of activities on Friday morning. Don't forget the popular student Integration Bee on Thursday evening and the Student Team Competition on Friday morning, both with cash prizes! Sign your students up early, particularly for the Integration Bee.

We also have planned a Fais-Do-Do on Friday evening featuring a delicious Louisiana-themed buffet and our own faculty band, Back Porch. We are putting together an expanded Exhibits Room this year, with a great MAA Book sale and information on regional graduate programs and professional development activities for faculty, in addition to textbook publishers. As always there will be lots of great talks and sessions on technology in the classroom, math and biology, as well as education-related projects.

For complete meeting information see the conference website: http://www.math.latech.edu/maa_meeting/. To get the special conference rate at the Holiday Inn Express, be sure to make your reservations by February 3. See you there!!

Jenna Carpenter and Galen Turner



Dr. Richard DeVault received his B.S. in Electrical Engineering from the University of Rhode Island in 1985 and his Ph.D. in Mathematics from URI in 1996. He has spent the last 10 years at Northwestern State University of Louisiana where he is an Associate Professor of Mathematics. At NSU, he has taught a wide range of undergraduate courses and mentored many undergraduate research projects. He is also very involved in research in the area of nonlinear difference equations of higher order and their applications.

Dr. DeVault is recognized as an effective and successful teacher. He teaches his students to understand the mathematics they are studying and to think critically about the ideas they have learned. He also teaches them how to express their ideas through either written or spoken word. His classes are made enjoyable by his extremely positive outlook on life and also by his humorous way of looking at things. He is also well known around NSU for not wearing shoes in class!

Dr. DeVault is the director of the JOVE undergraduate research program. JOVE is a highly selective scholarship program for students in the College of Science and Technology majoring in biology, chemistry, mathematics, or physics. JOVE began as a joint venture with NASA and has since grown into vital part of the educational experience for outstanding mathematics and science students at NSU. The intent of the JOVE program is to give students the opportunity to pursue research in their field at the undergraduate level. DeVault both directs the program

and also works with the mathematics majors in JOVE on undergraduate research projects.

Dr. DeVault received the Mildred Hart Bailey Research Award for Outstanding Research at NSU in March, 2001. He also received the College of Science and Technology Excellence in Teaching Award at NSU in the fall of 2005. He is an active member of both the Mathematical Association of America and the American Mathematical Society. He is a member of the Society of Difference Equations and serves as a reviewer for Mathematical Reviews.

INTEGRATION BEE

Students may compete in the Integration Bee on Thursday night, 7:00-9:00 . There are cash awards for the top three winners. The contact person is

Randall Wills (rwills@selu.edu),
Mathematics,
SELU Box 10687,
Hammond, LA 70402.

An online Integration Bee registration form can be found at http://www.selu.edu/Academics/Faculty/kneuerburg/maa/integration_online.html

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. Galen Turner III (gturner@coes.latech.edu). Abstracts may be submitted electronically as an email attachment in WordPerfect, Microsoft Word or PDF format. The post mark deadline for submission of abstracts is **February 1, 2006**.

Outstanding Teaching Award.

If you have a colleague who you feel is an excellent teacher, please take the time to nominate him or her for the LA/MS MAA Section Outstanding Teaching Award. Information about the award can be found at the section website,

<http://www.mc.edu/campus/users/travis/maa/meeting/index.html> .

You can also contact the Outstanding Teaching Award Committee Chair, Dr. Richard DeVault, Department of Mathematics, Northwestern State University, at rich@nsula.edu, or at richarddevault@yahoo.com, or by phone at 318 - 357 - 5042.

The deadline for applications is January 27, 2006.

All application materials should be sent to:

Dr. Richard DeVault
Department of Mathematics
Northwestern State University of Louisiana
Natchitoches, LA 71497

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 half-time during the academic year to teaching a mathematical science in a public or private college or university (from two-year 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.

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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.

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 Section Vice-Chair, Dr. Galen Turner III. Abstracts may be submitted electronically as an email attachment in WordPerfect, Microsoft Word or PDF format. The post mark deadline for submission of abstracts is **February 1, 2006**.

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.

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, \$75.00, second, \$50.00, and third, \$25.00.

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

The LA-MS Section of the MAA will hold its annual student Paper Competition at the Spring Section meeting. Send an electronic abstract and four printed copies to Barry Piazza (barry.piazza@usm.edu), The University of Southern Mississippi, 118 College Drive #5045, Hattiesburg, MS 39406-0001 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.

STUDENT COMPETITION RULES

The student team competition will be held at the Spring Section Meeting on **Friday, from 8:30 – 11:00 a.m.**

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 1st place (\$100), 2nd place (\$75), and 3rd 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:

<u>Group I</u>	<u>Group II</u>
<i>Ten mandatory problems</i>	<i>Choose any 5 problems.</i>
Calculus (5 problems)	Abstract and Linear Algebra (2 problems)
Abstract Algebra (1 problem)	Advanced Calculus (2 problems)
Advanced Calculus (1 problem)	Differential Equations (1 problem)
Differential Equations (1 problem)	Multivariable Calculus (1 problem)
Discrete Mathematics (1 problem)	Geometry (1 problem)
Linear Algebra (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 no later than February 15, 2006. Or, use the online application form located at http://sandbox.mc.edu/~travis/maa/compform_online.html

STUDENT COMPETITION REGISTRATION FORM

Name of Institution: _____

Name(s) of Faculty Sponsor: _____

Faculty Sponsor E-mail: _____

Names and Classifications of Team Members

TEAM I

	<i>NAME</i>	<i>CLASSIFICATION</i>
1		
2		
3		
4		

TEAM II

	<i>NAME</i>	<i>CLASSIFICATION</i>
1		
2		
3		
4		

*** You may also register by sending the above information by fax or e-mail to George Cochran

Email: cochran@math.lsu.edu (plain text only)

or gt_cochran@yahoo.com (attachments OK)

Dept. of Mathematics, LSU

Baton Rouge, LA 70803-4918

Phone #: (225) 388-1614

Fax #: (225) 388-4276

HOTEL INFORMATION

The Holiday Inn Express will serve as the official hotel for the Section Meeting. To reserve a room, call the hotel, and be sure to mention MAA Math Meeting to get the conference rate.

Holiday Inn Express
1825 Roberta Avenue (Exit 86 off of I-20)
Ruston, LA 71270
(318) 513 9777
Special Rates: \$74.95/night (King or Double Rooms)
\$89.95/night (King or Double Suites)

Note. The inn offers complimentary breakfast.

Other hotels in the area where accommodations may be found are listed below.

Hampton Inn
1315 N. Trenton St. (Exit 85 off of I-20)
Ruston, LA 71270
(318) 251-3090

Ramada Inn
401 N. Service Rd. (Exit 85 off of I-20)
Ruston, LA 71270
(318) 255-5901

Comfort Inn
1951 N. Service Rd. East (Exit 86 off of I-20)
Ruston, LA 71270
(318) 242-0070

To find out additional information, consult the LA/MS Section web site located at
<http://www.mc.edu/campus/users/travis/maa/meeting/index.html>

**LA/MS MAA Section
83rd Annual Meeting
Louisiana Tech University
Ruston, Louisiana
February 16-18, 2006**

Thursday Evening

Registration	6:00 – 7:30
Hospitality Room	6:00 – 7:30
Integration Bee	7:00 – 9:00

Friday

Registration	8:00 – 2:00
Hospitality Room	8:00 – 5:00
E-Mail Room	8:00 – 5:00
Book, Graduate School and Faculty Development Program Exhibits	8:00 – 5:00
Student Team Competition	8:30 – 11:00
Section NExT – Opening Session	8:00 – 9:00
Section NExT – Undergraduate Research – How to Make it Work – Aparna Higgins	9:15 – 10:15
New Faculty Session Presider: Michael Pearson, Associate Director, MAA	10:30 – 11:30
Technology Session ALEKS – Ruth Ellen Hanna, Tech	10:30 – 11:30

Student Luncheon	11:30 – 12:30
Department Head Luncheon	11:30 – 12:30
Opening Session Invited Address	1:00 – 2:15
<i>Connections between Mathematics and Biology</i>	
Carl Cowen, President	
Mathematical Association of America	
Student Papers	2:30 – 5:15
Contributed Papers I	2:30 – 5:15
Contributed Papers II	2:30 – 5:15
Panel Session	2:30 – 3:30
Finding Common Ground in K – 12 Mathematics Education	
Coordinator: Michael Pearson	
Technology Session	3:30 – 4:30
TI Interactive	
Grace Casio-Houston, LSU-E	
Student Career Panel	5:30 – 6:30
Fais-Do-Do	6:30 – 8:30
Entertainment by Back Porch	

Saturday

Registration	8:00 – 10:00
Hospitality Room	8:00 – 12:00
E-Mail Room	8:00 – 12:00
Book, Graduate School and Faculty Development Program Exhibits	8:00 – 12:00

Liaison Breakfast Presider: Roger Waggoner	7:15 – 8:15
Outstanding Teaching Award Invited Address Richard DeVault, NSU	8:30 – 9:30
Panel Session Coordinator: Frank Serio, NSU	9:45 – 10:45
Committee Meetings	9:45 – 10:45
Contributed Papers III	9:45 – 10:45
Contributed Papers IV	9:45 – 10:45
Business Meeting	11:00 – 12:15
Executive Committee Meeting	12:15 – 12:30

Connections Between Mathematics and Biology
Carl Cowen, President
Mathematical Association of America

Dr. Rita Colwell, a research microbiologist and former Director of the National Science Foundation, regards the mathematical sciences as the backbone for US Scientific and Engineering research. Many scholars see the next few decades as a time of intensive progress in the biological sciences. Dr. Colwell sees mathematics as being an integral part of the progress in biology, not a traditional view, but a forward looking one.

In this talk, Carl Cowen will outline some of the research areas in the emerging collaborations between mathematical and biological scientists. In addition, Cowen, who began his study of the mathematics of neuroscience in 2002-03 at the Mathematical Biosciences Institute at Ohio State University, and who in 2003-2004 worked as a junior post-doc in the lab of Professor Christie Sahley in the Purdue University Biology Department, will illustrate the connection between mathematics and neuroscience with a discussion of the Pulfrich phenomenon, an experiment that helps illuminate how the brain processes visual images. There are few mathematical or biological prerequisites for this discussion.

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

Cost per academic year: \$50

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:

Jenna Carpenter
P. O. Box 10348
Ruston, LA 71272