



Southern California Section
The Mathematical Association of America
NEWSLETTER

Volume XLII, Number 2

February 2001

Dates to Remember:

March 2, 2001
*Preregistration
 deadline for Spring
 Meeting (including
 registration for Grant
 Writing Workshop)*

March 9, 2001
*Submission deadline
 for student poster
 abstracts for Spring
 Meeting*

March 17, 2001
*Spring Meeting
 CSU Fullerton*

August 2-4, 2001
*Mathfest
 Madison, WI*

October 13, 2001
*Fall Meeting
 Loyola Marymount
 University*

Section Boundaries: an Update

For some time now, MAA members in the San Luis Obispo and Las Vegas areas have been seeking to change the boundaries between the Northern and Southern California MAA Sections. Under the proposed changes, San Luis Obispo would become part of the Northern California Section, while Las Vegas would become part of the Southern California Section. The procedure for such changes is to bring the proposals to the National Committee on Sections in the form of petitions signed by members of the affected areas.

Such petitions were gathered in both the San Luis Obispo and the Las Vegas areas, and they were forwarded to the Committee on Sections, which met in New Orleans on January 10. The proposed changes are endorsed by the leadership of both the Northern and Southern Sections. The net change in membership for each section would be very small, but members in both affected areas feel they would benefit from the changes. The changes are particularly significant for members in the Las Vegas area, for whom meetings in Northern California involve considerable travel and expense.

The Committee on Sections has now asked that each of the two sections, at a section meeting, conduct a vote of its entire membership on the proposed changes. Accordingly, we will have a brief business meeting at our section meeting in Fullerton on March 17. We will, of course, take time to clarify and discuss the proposals. However, neither **Tom O'Neil** of *Cal Poly San Luis Obispo* nor **Michelle Schultz** of *University of Nevada Las Vegas*, who organized the petition

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Springtime in Fullerton

The Spring meeting of the Southern California Section will be held on Saturday March 17 at California State University Fullerton. The program includes talks by invited speakers **Keith Devlin**, *St. Mary's College*, and **Erica Flapan**, *Pomona College*. Dr. Devlin's talk is based on his book *The Math Gene* and Dr. Flapan's on the exciting connections between topology and chemistry. The morning program includes the popular **student poster session**, as well as a **student career panel**. We are also offering a special **grant writing workshop** sponsored by the national MAA. For more details see page 5. People not attending the workshop may participate in a **forum on national and local mathematical issues**. Planned topics of discussion include: the fate of the Joint Policy Board on Mathematics and, in general, the issue of collaboration with the AMS; preliminary results from the CUPM on 'What Should Students Know'; revitalizing support for a regional Project NExT section; collaborations with SIAM; and better ways to serve the Southern California Section. Please see page 7 of this newsletter for more information about registration for the meeting.

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The Student's Column

Southern California student presenters win big at national meetings!

Deborah "Betsy" Sinclair of the *University of Redlands* won one of six \$150 MAA awards for her presentation, "Random Perfect Matchings," at the MAA Mathfest at UCLA in August, 2000. She completed her project at the Summer 2000 East Tennessee State REU.

Six Southern California mathematics students won \$100 prizes for posters presented during the AMS-MAA National Meetings in New Orleans, LA, in January, 2001.

Alison Castro, *UC Riverside*

Klaus Daniel, *Claremont McKenna*

Jason Flatley, *Claremont McKenna*

Emily Kaijta, *Harvey Mudd College*

Marco Latini, *Harvey Mudd College*

Suzanne Sindi, *CSU Fullerton*

Congratulations one and all. Let them be *your* inspiration for the upcoming poster session at the Spring Meeting on March 17.

Student Registration for the Spring 2001 Meeting is FREE!

Student admission to the Spring Meeting Saturday, March 17, at Cal State Fullerton is FREE, and lunch for students is only \$10. See the registration form on page 7. In addition to two very dynamic speakers, the Spring Meeting will feature a Student Career Panel and the annual Student Poster Session. If you present a poster at the Spring Meeting, you'll receive free lunch at the meeting, and a free one-year MAA membership and journal subscription. See Spring Meeting Student Poster Session, below. See you at Cal State Fullerton!

Spring 2001 Meeting Career Panel

The Spring Meeting Saturday, March 17, at Cal State Fullerton will feature a panel of working professionals who are using their mathematics majors in exciting and rewarding careers. Come find out what you can do with your mathematics major after you graduate from college!

Spring 2001 Meeting Student Poster Session

Share your mathematical work with others by presenting a poster at the Spring Meeting Saturday, March 17, at Cal State Fullerton! Posters may feature the results of any individual or group mathematics project, including:

- ◆ Results of honors, senior, or other independent study projects;
- ◆ Results of classroom projects or modeling contests;
- ◆ Results of REUs or other summer workshops or research programs;
- ◆ Historical investigations in pure or applied mathematics;
- ◆ Solutions of problems from the Putnam Exam or from the *Monthly* or other journals.

The 2000 Student Poster Session featured 30 posters with "Best Poster" and "Best Project" prizes awarded to a study of parasitic infestations of a local fish species and to a project on random number generation, respectively. If you don't already have a project in mind, ask one of your professors for a project to present.

Submit title and brief abstract by **Friday, March 9, 2001** to Prof. Janet Berry at the address to the left.

Send student poster titles and abstracts to

Prof. Janet L. Beery
Mathematics Dept.
Univ. of Redlands
1200 E. Colton Ave.
Redlands, CA 92373

or

beery@uor.edu

before the March 9
deadline.

Questions? Contact

Prof. Janet L. Beery
beery@uor.edu
(909)793-2121 x3118



News for you

Pi Mu Epsilon Looking for Student Papers for Mathfest

The Pi Mu Epsilon Council encourages students who are interested in presenting papers at Mathfest 2001 in Madison, WI to begin making plans soon. Members of Pi Mu Epsilon representing their chapters at this meeting are eligible for partial travel support. The application deadline is June 29, 2001. More information about Pi Mu Epsilon and application materials can be found at the PME web site, <<http://www.pme-math.org>>, or contact jgalovich@csbsju.edu.

Hudson River Undergraduate Mathematics Conference

The eighth annual Hudson River Undergraduate Mathematics Conference will be held on April 28, 2001, at *Skidmore College* in Saratoga Springs, NY. The conference includes presentations on mathematics by both faculty and students, and both are encouraged to participate. Conference sessions are designed so that some presentations are accessible to undergraduates in their first years of study, and others are accessible to third- or fourth-year undergraduate mathematics majors. The keynote speaker will be Ingrid Daubechies. Those wishing to present at the conference should submit electronically an abstract by March 2, 2001. Abstracts can be submitted via the web. To find out more about HRUMC, visit the conference web site at <<http://www.skidmore.edu/academics/mcs/hrumc.htm>>.

North Central Section Announces Summer Seminar

V. Frederick Rickey will be the lecturer at the North Central Section of the MAA 2001 Summer Seminar titled "The History of Mathematics". The seminar will be held from July 24 through July 27 on

the campus of Bemidji State University in Bemidji, Minnesota. More information is available at the following web site: <<http://ea.bemidji.msus.edu/mathcs/seminar2001/>>

A Summer Seminar on Proofs and Refutations

"*Proofs and Refutations in Mathematics Today*" is an NEH Summer Seminar for College and University Teachers, to be held at Case Western Reserve University in Cleveland OH. Aimed at mathematicians, philosophers, historians, and anyone else interested, the seminar will focus on the roles of rigor and intuition in mathematics, drawing on Lakatos book *Proofs and Refutations* and on the debate in the Bulletin of the American Mathematical Society that began with Jaffe and Quinn's 1993 article "Theoretical mathematics: towards a cultural synthesis of mathematics and theoretical physics."

The seminar runs six weeks, from June 25 to August 3, 2001, and participants receive a stipend of \$3,700. Applications must be mailed by 1 March 2001. Further information is available on the web at <<http://www.cwru.edu/artsci/phil/events/neh.html>>.

Send news from your institution to Jennifer Quinn at jquinn@oxy.edu or Occidental College, Mathematics Dept, 1600 Campus Road, Los Angeles, CA 90041. Let us publicize your honors, events, and milestones.

Web Developments

The Mathematical Sciences Digital Library

<www.mathdl.org>

An online resource managed by the MAA with funding from the NSF providing a mathematical bonanza for both teachers and students of collegiate mathematics. Contents includes the Journal of Online Mathematics and its Applications (JOMA), a catalog of mathematics commercial products, complete with editorial reviews, reader ratings and discussion group, and an online collection of mathematics instructional material with authors' statements and reader reviews.



SPRING MEETING PROGRAM

California State University, Fullerton

March 17, 2001

8:15 – 12:00	Registration	Walkway between McCarthy Hall and Science Lab Center
8:15 – 10:30	Refreshments	Walkway between McCarthy Hall and Science Lab Center
8:15 – 2:30	MAA Book Sale	McCarthy Hall 187
9:00-9:50	INVITED ADDRESS <i>When Chemistry meets Topology</i> Erica Flapan , Pomona College	McCarthy Hall 121
10:00-11:00	STUDENT POSTER SESSION	Walkway between McCarthy Hall and Science Lab Center
10:15-12:00	MAA Grant Writing Workshop – Part I George Pletsch , Albuquerque Technical Vocational Institute Registered participants only. Participants must sign up <i>prior</i> to the meeting. For more information see page 5.	McCarthy Hall 476
11:00-12:00	STUDENT CAREER PANEL What can you do with your Mathematics Major?	McCarthy Hall 390
11:00-12:00	PANEL – HOW TO GET STUDENTS INVOLVED IN UNDERGRADUATE RESEARCH Panelists from 2-year colleges, liberal arts colleges, CSU and UC schools will discuss their successes with student research and projects.	McCarthy Hall 121
12:15-1:35	LUNCHEON PROGRAM Food service followed by MAA business meeting to include acknowledgements, awards, and vote on section boundaries. Bob Stein , CSU San Bernardino MAA Section Chair	Marriott Hotel
1:45-2:45	INVITED ADDRESS <i>How did human beings acquire the ability to do mathematics?</i> Keith Devlin , St. Mary's College of California	McCarthy Hall 121
2:45-3:45	Refreshments	Lobby outside McCarthy Hall 121
3:00-4:00	FORUM ON NATIONAL AND LOCAL MATHEMATICS ISSUES	McCarthy Hall 121
3:00 -4:45	MAA Grant Writing Workshop – Part II George Pletsch , Albuquerque Technical Vocational Institute Registered participants only.	McCarthy Hall 476

Titles and abstracts for the Student Poster Session must be submitted to Janet Berry by March 9, 2001. See page 2 for details.



ABSTRACTS

Erica Flapan, Pomona College
When Chemistry meets Topology

The 3-dimensional geometry of molecular structures has long been known to play an important role in determining the chemical properties of molecules. Recently a number of large, flexible, topologically complex molecular structures have been synthesized. For example, molecular knots, links, and Mobius ladders. In order to analyze the properties of such topologically complex molecules, it is necessary to understand their topology rather than their geometry. In this talk we will present some topological techniques which can be used to analyze the symmetries of such molecular structures.

Keith Devlin, St. Mary's College of California
How did human beings acquire the ability to do mathematics?

What we would normally call mathematics is at most 10,000 years old. That's far too short a time for any major structural changes in the brain. So mathematical thinking must comprise mental capacities that evolved for very different purposes. What were they and why did they develop? And if they are capacities everyone has, why do so many people find mathematics hard? The talk is based on Dr. Devlin's latest book, "*The Math Gene: How Mathematical Thinking Evolved and Why Numbers Are Like Gossip*", published by Basic Books in August.

Grant-Writing Workshop
George Pletsch, Albuquerque
Technical Vocational Institute

The National Science Foundation and the MAA would like to see more grants awarded in mathematics particularly ones oriented towards education. This workshop will explore current funding opportunities at the NSF and cover the nuts and bolts mechanics of the grant writing process. Topics will range from procedural issues such as Fastlane submission to examining the salient features of a good proposal. Several successful proposals will be examined in depth. This is a wonderful opportunity for those who have been contemplating writing an NSF grant. Don't miss it!

There is an additional fee of \$10 to participate in the grant writing workshop. Pre-registration is required and must be completed by March 2, 2001.

(Continued from page 1)

drives, has encountered anyone opposed to the proposed changes, so I hope we will not need to spend too much time on this issue. If you have questions or comments about the proposals, do not hesitate to contact me or Art Benjamin.

If the votes of both sections are favorable, the Committee on Sections will act on the proposals at its summer meeting.

Bob Stein
Section Chair
CSU San Bernardino
bstein@wiley.csusb.edu



California State University Fullerton: Maps and Directions

Approximate driving times to CSU Fullerton from:

UCI	25 min
Pomona	30 min
Univeristy of LaVerne	30 min
Caltech	45 min
Loyola Marymount	50 min
UCLA	1 hr
CSU Northridge	1 ¼ hr
Pepperdine	1 ¼ hr
CSUSB	1 ¼ hr
UCSD	1 ½ hr
UCSB	2 ½ hr
UNLV	4 ½ hr

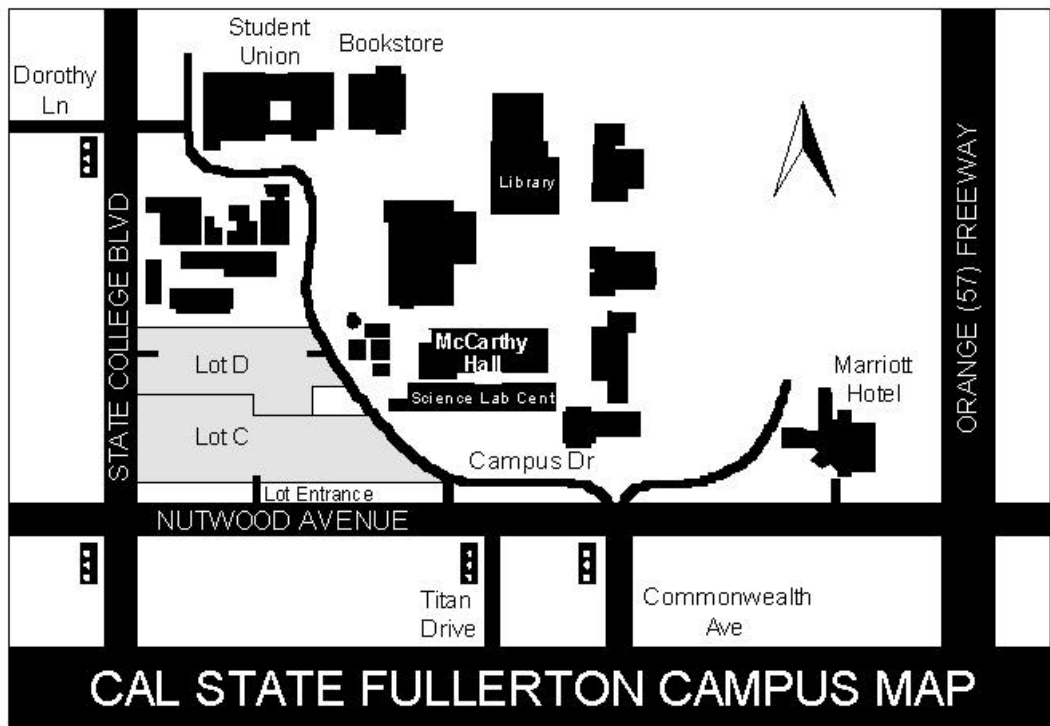
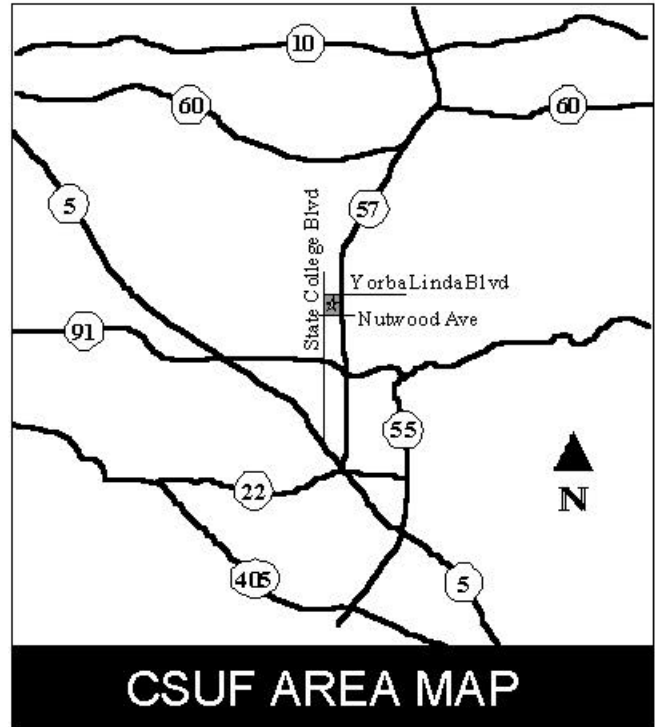
Travel time estimates provided by MapQuest.com.

Cal State Fullerton is located west of the Orange (57) Freeway in Fullerton. The university is bordered by Nutwood Avenue to the south, State College Boulevard to the west, Yorba Linda Boulevard to the north, and the 57 Freeway to the east.

Coming from either the south or the north on the 57 Freeway, exit at Nutwood Avenue. Go west on Nutwood past the main campus entrance at Commonwealth Avenue and then past Titan Drive to the entrance to Parking Lot C. (See the Campus Map.)

The *registration desk* is in the walkway between McCarthy Hall and the Science Lab Center. In case of bad weather, the registration desk will be in the lobby outside McCarthy Hall room 121, which is

located in the northwest corner of the building.





BALLOT FOR SECTION OFFICERS

I wish to vote for the slate of nominees.

Position	Candidate	Write-in Alternative
Section Chair	<input type="checkbox"/> Wilhemus Luxemburg Caltech	<input type="checkbox"/> _____
Section Vice-Chair	<input type="checkbox"/> Magnhild Lien CSU Northridge	<input type="checkbox"/> _____
Program Chair	<input type="checkbox"/> Herbert Medina Loyola Marymount	<input type="checkbox"/> _____
First Program Vice-Chair	<input type="checkbox"/> Mario Martelli Claremont McKenna	<input type="checkbox"/> _____
Second Program Vice-Chair	<input type="checkbox"/> Michael Franz University of LaVerne	<input type="checkbox"/> _____

Once again it is time to vote on our section governance. Your voice is important. Send your votes (and meeting registration) to Ernie Solheid at the address given below. Votes must be received by March 2. Thank you.

Pre-Registration/Luncheon Reservation Form

*Spring Meeting at CSU Fullerton
March 17, 2001*

Enter the number of registrations of each type in the appropriate blank in the table below. Make checks payable to **Southern California MAA**. (Attach a separate page for multiple registration information.)

Name _____

Affiliation _____

Address _____

E-mail Address _____

Attention new members of the MAA: You are qualified for free registration at your first section meeting.

	Nonmember	MAA Member	New MAA Member First Meeting	Student
Required Registration	_____ @ \$12.00	_____ @ \$10.00	_____ @ FREE	_____ @ FREE
plus Luncheon	_____ @ \$20.00	_____ @ \$20.00	_____ @ \$20.00	_____ @ \$10.00
plus Grant Writing Workshop	_____ @ \$10.00	_____ @ \$10.00	_____ @ \$10.00	

Complete the form and send it with payment to:

Ernie Solheid
Dept. of Mathematics
CSU Fullerton
800 N. State College Blvd., Fullerton, CA 92834

Preregistration forms should be received by Friday, March 2.

_____ Standard Lunch
_____ Vegetarian Lunch

Total Enclosed \$ _____

Questions or problems? Contact:
Ernie Solheid, Email: esolheid@fullerton.edu, phone: (714) 278-7023

**National High School Calculus Award**

The second annual National High School Calculus Award, sponsored by <Calculus.org>, will award \$1000 to the winning student. Teachers may nominate any U.S. junior high or high school student for this award. Nominations are due by February 28, 2001. Visit <<http://www.calculus.org>>, for further information.

The URL for the Section Web page is easier to remember

<<http://www.maa.org/socal>>.

Thanks to the National MAA Office for the simplification!

Plan to attend the Spring Meeting in Fullerton on March 17!

Program and directions on pages 4-5. Registration form on page 7.

Registration is free for students.

Registration is free for *new* MAA members attending their first Southern California Section Meeting.

**Newsletter**

Mathematics Association of America

Southern California Section

Jennifer Quinn, Newsletter Editor

Occidental College

1600 Campus Road

Los Angeles, CA 90041

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