



Southern California Section
The Mathematical Association of America
NEWSLETTER

Volume XLIV, Number 1

September 2002

Dates to Remember:

October 12, 2002
Fall Meeting at
Cerritos College
Pre-registration
deadline Friday
October 4, 2002

January 15-18, 2003
Joint Mathematics
Meeting
Baltimore, MD

Spring 2003 Meeting,
March 8, 2003 at
Harvey Mudd College

July 31-August 1, 2003
Mathfest
Boulder, CO

**WE ARE CHANGING OUR BORDERS—
NOTES FROM THE SECTION CHAIR**

It is my pleasure to serve as Section Chair for this coming year. I have enjoyed being on the Board of the Southern California Section of the MAA since spring 1999 and have come to appreciate the efforts put forward by the board members every fall and spring when we hold our section meetings. Each person on the board has his or her task, but it is the teamwork that makes it all come together.

I hope you will be able to attend our fall meeting, which will be held at Cerritos College on Saturday October 12, 2002. Please encourage your colleagues to attend our section meetings. In particular, tell your new faculty about the Southern California Section of the MAA and inform them about the fall meeting. Attending the section meetings is also a great experience for both undergraduate and graduate students. The meeting registration fee for students is \$10. A department can encourage student participation at the meetings by offering to pay for the registration and maybe even the lunch. I know from personal experiences at CSU Northridge that the students are flattered by such an offer. The students who attend are excited by the ex-

perience of going to a professional meeting. We are in the final stages of officially changing the section boundaries to include Southern Nevada in our section. At the same time our San Luis Obispo membership will join the Northern California Section. It will be made official in January. Now that Southern Nevada will be part of our section we plan to have a section meeting in Las Vegas in the near future.

The first cohort of SoCal Section NExT fellows will be attending the fall meeting at Cerritos College. There will be a special program for the Section NExT fellows prior to the meeting as well as during the morning sessions. You can spot a Section NExT fellow by the yellow dot on his or her nametag. To learn more about Section NExT please visit our web site <http://www.maa.org/socal>

(Notes from the Section Chair continued on page 2)

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Report on the Burlington Mathfest

The Board of Governors Meeting

The Board of Governors met for a full day in Burlington, Vermont, on July 31, 2002. It was the first meeting with the new treasurer, John Kenelly. Many participants expressed their appreciation of the financial report prepared by Kenelly, while asking that a consistent pattern be used in listing income and expenses to insure that all governors, during their three-year tenure, be able to carefully evaluate the financial situation of the society. The most vexing ongoing problem of the association is the endowment level to "ride out the peaks and valleys" of the income stream.

Jim Tattersall, who was reconfirmed as Associate Secretary to a second five-year term, announced the schedule of the annual meetings and Math Fests. After the next Joint Meeting in Baltimore, January 15-18 2003 we are looking at the following list:

2003 Math Fest, Boulder, Colorado,
July 31- August 1 (Thursday-Saturday)

2004 Joint Meeting, Phoenix, Arizona,
January 7-10, (Wednesday-Saturday)

2004 Math Fest, Providence, Rhode Island,
August 12-14, (Thursday-Saturday)

2005 Joint Meeting, Atlanta, Georgia,
January 5-8, (Wednesday-Saturday)

2005 Math Fest, Albuquerque, New Mexico,
August 4-6, (Thursday-Saturday)

2006 Joint Meeting, San Antonio, Texas,
January 12-15, (Thursday-Sunday)

(Burlington Mathfest continued on page 6)



The Student's Column

Plan to attend the Fall 2002 Meeting at Cerritos College!

Student admission to the Fall Meeting Saturday, October 12, 2002, at Cerritos College is half price (\$10), and lunch for students is roughly half price (\$8). See the registration form on page 7 of this newsletter. The Fall Meeting will include several talks of interest to students, including lively presentations by mathematician Steven Krantz on "*A matter of gravity*" and by mathematics historian Jim Tattersall on "*Three Vignettes in the History of Mathematics*."

Organize a group of students from your school to attend the Fall Meeting, and encourage your Mathematics Department Chairperson to pay for your registration and lunch!

January 2003 Student Poster Session in Baltimore, Maryland

Apply to present a poster during the Undergraduate Student Poster Session at the American Mathematical Society-Mathematical Association of America Joint Meetings, to be held January 15-18, 2003, in Baltimore, Maryland. The poster session itself will be on Friday, January 17, 2003, from 4 to 7 p.m. Students from across the United States will present posters describing their mathematical research projects.

Professor Mario Martelli of Claremont McKenna College is the organizer for the poster session. Students who wish to apply to participate should send a title and a (no more than) one half-page abstract to Mario Martelli, Mathematics Department, Claremont McKenna College, 850 Columbia Ave., Claremont, CA 91711, as soon as possible and no later than December 7, 2002. Questions? Visit the Baltimore Student Poster Session website at <http://math.academic.mckenna.edu/Baltimore.htm> or contact Professor Martelli at mario.martelli@claremontmckenna.edu.

Spring 2003 Meeting Student Poster Session at Harvey Mudd College

Begin preparing a poster NOW for the Spring Meeting at Harvey Mudd College, Saturday, March 8, 2003! 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 2002 Student Poster Session featured 20 posters with topics ranging from mathematical modeling of cancer treatments and of waterslides to investigations in combinatorics and knot theory. If you don't already have a project in mind, ask one of your professors for a project to present. Besides the challenge of working on the project, benefits to you include:

- Opportunity to share your work with other students and with mathematicians from both academia and industry in a friendly environment;
- Free meeting registration and free lunch;
- Free 1-year MAA membership, including 1-year subscription to an MAA journal (or free MAA book if you already are an MAA member);
- Opportunity to win Best Project, Best Poster, or Honorable Mention Awards;
- Great resume entry.

Questions? Contact Prof. Janet L. Beery, Dept. of Mathematics, Univ. of Redlands, 1200 E. Colton Ave., Redlands, CA 92373, PHONE: (909)793-2121, ext. 3118, E-MAIL: janet_beery@redlands.edu or beery@uor.edu Submit a title and brief abstract to Prof. Beery at the address or e-mail address above by Wednesday, Feb. 26, 2003. Be sure to include your name, the name of your school, and your advisor's name.

—Janet Beery
(University of Redlands)

(Notes from the Section Chair continued from page 1)

Finally, please feel free to let us know if there is any way we can serve you and if you have suggestions for improving the section meetings or have ideas for other activities. Contact information for the board members can be found on our web site <http://www.maa.org/socal>.

—Magnhild Lien
(CSU Northridge)

Changing Your Address at the MAA

The newsletter editor cannot change your address or email information with the MAA. If you need to change your address or email information, please go to

www.ams.org/cml-update

where there are instructions for changing your information on the Combined Membership List (or CML).



News of the Section

The Department of Mathematics and Computer Science at the **University of Redlands** welcomes three new faculty members. **Elizabeth Doolittle** joined the department as Lecturer in Mathematics during the 2001-02 academic year. Joining them for the 2002-03 academic year are **Shirley Reid**, Lecturer in Mathematics, and **Paul McQuesten**, Visiting Assistant Professor of Computer Science. Mathematics Lecturer **Portia Cornell** won the university's Outstanding Teaching Award for 2001-02, and **Sandy Koonce** was promoted to Professor of Mathematics.

California Lutheran University is pleased to welcome two new Assistant Professors to the Mathematics faculty. **Jorge Garcia** defended his dissertation in the area of Probability at the University of Wisconsin this August. **Hala King**, who received her Ph.D. from Stanford in the area of Geometric Analysis, will be making the transition from part-time to full-time faculty.

News from Glendale College: **Sid Kolpas** and **Gary Massion** were recently awarded an NSF Peer Led Team Learning Grant (PLTL) to help improve the retention and success rates of students taking Intermediate Algebra. This fall, **Steve Marsden** and **Sid Kolpas** will be referenced in P. J. Nahin's second edition of *Duelling Idiots and Other Probability Puzzlers* published by Princeton University Press for an article they published in the AMATYC Review (Spring 1997) on infinitely many nested integrals. In the April 2002 issue of *The Mathematics Teacher*, **Sid Kolpas** published an article on the history of finger multiplication techniques, and the proof of a general algorithm for finger multiplication. The article was titled "Let Your Fingers Do The Multiplying".

CSU Fullerton reports that **Ernie Solheid** has been promoted to Full Professor.

Here's the news from the **College of the Desert** Math Department: Professor **Brett Romer** retired after more than 38 years of service teaching physics, managing the IS department, teaching math and finally chairing the math/science division. He will be sorely missed as he is a most excellent person, teacher and manager. **Thang Le**, a recent graduate of UC Riverside was hired as a full time math instructor. He's an expert in Lie algebras, a marvelous teacher and will be a great addition to their department. Our MESA program has just completed the first week-long Math Camp 2002 with 36 students attending 30 hours of math-intensive activities including Counter-Intuitive Math and Reading & Writing Logical Implication with Charades.

The **University of San Diego** has much to report: Students **Andrew Putnam**, **Jeffrey Lavery**, **Asher Langton**, **Jonathon Velte-Smith** and **Rusty Lencioni** won a competitive grant to participate in NASA's Reduced Gravity Student Flight Opportunities Program to study the evolution of

waves along fluid interfaces in space. Starting with computational models that predict the evolution of these waves, the students designed and implemented a physical experiment to fly aboard a NASA KC-135 airplane that climbs and dives in 10,000 foot tall parabolas, allowing those inside the plane to experience 20-30 seconds of near weightlessness. Their results can be seen at <http://www.sandiego.edu/zerogravity/>. **Daniel Sheehan** from USD's physics department

and **Jeff Wright** from USD's Mathematics and Computer Science Department were faculty advisors on this project. USD has several new faculty: In mathematics they welcome **Lynn McGrath** from the University of Rhode Island, whose research area is difference equations and their applications; and **Ani P. Velo** who for the last two years has been awarded the Davies Fellowship by the National Research Council, which allowed her to work at the U.S. Military Academy, West Point, NY, and Army Research Labs, MD. She received her Ph.D. from Worcester Polytechnic Institute, MA, and prior to that her diploma from University of Tirana, Albania. In Computer Science, they welcome **Beth Simon**, who received her PhD from the University of California, San Diego in 2001. She has worked in the areas of compilers, computer architecture, and performance programming. Finally, check out **Diane Hoffoss'** wonderful website about careers in mathematics at <http://www.sandiego.edu/~dhoffoss/careers/>. Diane joined the department this past year.

The mathematics department at **Loyola Marymount University** has three new faculty members. **Curtis Bennett** comes to them from Bowling Green University as an associate professor. He is another excellent algebraist in their growing group of algebraists. His strong interest and experience in the preparation of mathematics teachers will allow him to further strengthen LMU's already excellent programs for mathematics. **Ed Mosteig** is a new assistant professor and versatile young mathematician who just completed a post-doc at Tulane University. His primary area of research is computational algebra but he has a

(News of the Section continued on page 7)

Notes from the Newsletter Editor

Send news from your institution to me at lkjeseth@elcamino.edu or send it to **Lars Kjeseth**, El Camino College, Division of Mathematical Sciences, 16007 Crenshaw Blvd, Torrance, CA 90506.

Please note that my old email address, Lkjeseth@socal.rr.com, will no longer exist after October 1, 2002.

If you are the MAA liaison for your department or if you are the appropriate person to contact regarding news, but you have not received an email asking for news, please email me. I try to make changes to this list as they come in, but sometimes there may be a delay of one or two issues.

—Lars Kjeseth



Southern California Section of the Mathematical Association of America (MAA)

Fall 2002 Meeting

Saturday, October 12, 2002

at

Cerritos College
Tentative Schedule

- | | |
|----------------|--|
| 8:30a — 12noon | Registration (East Entrance of Learning Resource Center) |
| 8:30a — 4:30p | Book Sale (Learning Resource Center Room 134) |
| 9:00a — 9:55a | Invited Address by Asuman Aksoy
(Claremont McKenna College)
Teleconference Center - Library 102
Introduced by Mario Martelli (Claremont McKenna College) |

Complete the registration form on page 7 and send it with payment to:

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

Registration deadline is Friday, October 4, 2002.

Theorems of the Hahn-Banach type

The literature contains many closely related theorems, any of which can be referred to the Hahn-Banach theorem. These results are used in different ways in various parts of Analysis. In this talk I will focus on their connections to intersection and extension properties.

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|-----------------|---|
| 10:00a — 11:00a | Panel on How History of Mathematics can be Used in Teaching
Teleconference Center - Library 102
<i>Moderator:</i> Magnhild Lien (CSU Northridge)
<i>Panelists:</i>
Janet Beery (University of Redlands)
Shirley Gray (CSU Los Angeles)
Bob Stein (CSU San Bernardino)
Jim Tattersall (Providence College) |
|-----------------|---|

- | | |
|-----------------|---|
| 10:00a — 11:20a | Session for Contributed Papers on Calculus Capsules
Learning Resource Center Room 133
Moderator: Arthur Benjamin (Harvey Mudd College) |
|-----------------|---|

- | | |
|-----------------|---|
| 10:00a — 11:20a | Session for Contributed Papers by Undergraduate Students
Learning Resource Center Room 218
Moderator: Asuman Aksoy (Claremont McKenna College) |
|-----------------|---|

Second Call for Contributed Papers

Individuals are still invited to submit abstracts for 15 - 20 minute talks at the fall meeting in one of two contributed paper sessions. The original session on History of Mathematics has been changed to a panel discussion, so contributed paper talks should address a topic in one of the following areas:

- (1) Classroom Capsules (results that convey new mathematical insights and/or make use of effective teaching strategies for the college classroom). Submissions for all contributed papers should contain a title, an abstract (not to exceed one-half page and suitable for inclusion in the conference program), and the desirable mathematical background of the audience.
- (2) Undergraduate Research (presentation of mathematical results by undergraduates, or resulting from collaborations of undergraduates and faculty; MCM results are welcome).

Please send all submissions to:

Michael Frantz
Mathematics Department
University of La Verne,
La Verne, CA 91750

Electronic submissions should be sent to:
frantzm@ulv.edu

Questions? Michael Frantz can be reached at (909) 593-3511 x4609.

Deadline for receipt of submissions: Monday, September 16, 2002. Electronic submission (PDF, DVI, LaTeX, TeX, MS Word) is preferred.



11:25 — 12:20p

Invited Address by Jim Tattersall (Providence College)

MAA Associate Secretary

Teleconference Center - Library 102

Introduced by Francis Bonahon, USC

Three Vignettes in the History of Mathematics

We will discuss the contents of the number theory texts written by Theon of Smyrna and Nicomachus of Gerasa around A.D. 125, and disclose the secret machinations behind Colson's promiscuous numbers. We shall furnish a few details in the life of the author of the first book on differential equations and his nyctaginaceous connection to California.

12:30p — 1:45p

Lunch (Student Center)

2:00p — 2:55p

Invited Address by Steven Krantz (Washington University)

Teleconference Center - Library 102

Introduced by Michael Frantz (University of La Verne)

A Matter of Gravity

We re-examine the notion of center of gravity. As a result we present some new questions and offer novel answers. The talk assumes only elementary calculus and physics. No other prerequisites are needed. It contains a number of new results about these classical ideas.

3:00p — 4:30p

Workshop on Assessment

Organized by the Mathematical Association of America

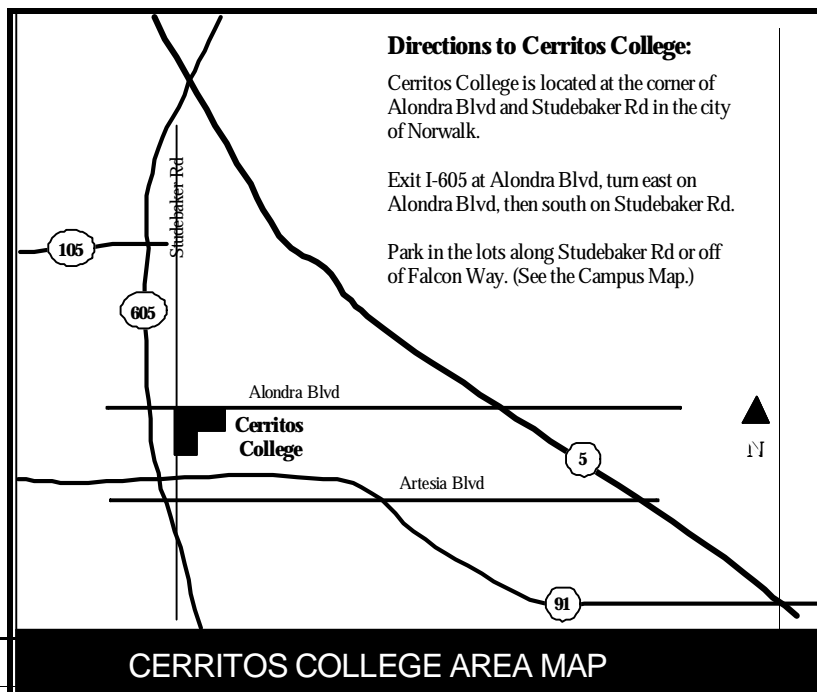
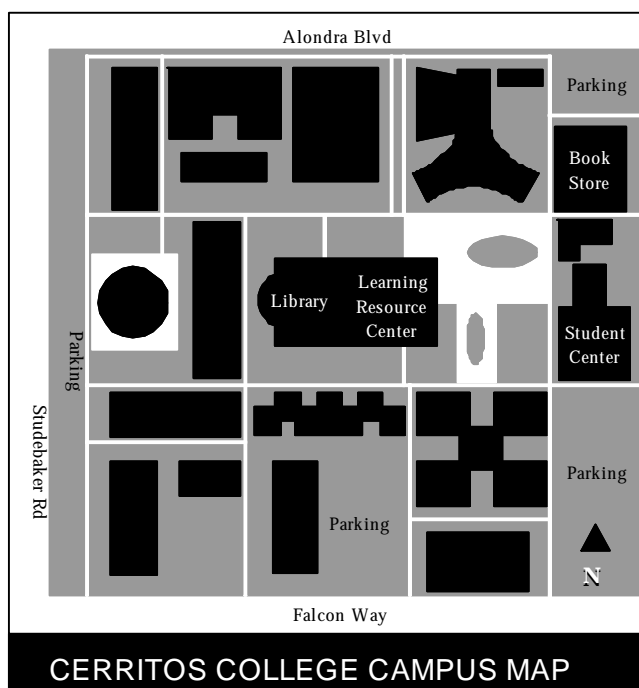
Conducted by Bonnie Gold (Monmouth University)

Three parts (30 minutes each):

Overview of Assessment (SAUM project)

Panel presentation by faculty involved in Assessment

Questions and Answers





(Burlington Mathfest continued from page 1)

Save the dates! Attendance to the Burlington Math Fest exceeded our most optimistic expectations, reaching a total of over 1200 participants.

Membership in the society is back up after a dramatic drop following the September 11, 2001 tragedy.

An agreement with Amazon.com is producing MAA book sales of about \$10,000 every month. The association is looking for a similar agreement with Barnes & Noble Online.

Many new interesting titles were published recently and you will have the opportunity to see them and make some acquisitions at the Fall Meeting hosted on October 12 by Cerritos College.

Nancy Hagelgans of Ursinus College, was elected as the new Chair of the Committee on Sections. She replaces David Stone after the January 2003 meeting and will chair the committee until the end of the January 2006 meeting.

The only discussion raising some divergent opinions was about the replacement of governors unable to attend the national meetings. There was disagreement about the right of the replacement person to cast a vote. No final decision was reached and the issue will be discussed again at the January Meeting in Baltimore.

The Section Officers Meeting

The Section Officers meeting was a two-hour afternoon discussion on Thursday, August 1 at the Burlington Sheraton. In attendance from our section were Ann Watkins, President of the MAA, Deborah Tepper Haimo, past President of the MAA and myself. Here are some of the issues we discussed.

Many Sections have tried to combine their local meeting with the AMS. The organizers had to work very hard on the details of these joint meetings. Many felt that their efforts did not produce the desired results.

There was a long presentation of the Project NExT possibilities at the local level by

Gavin LaRose (University of Michigan, glarose@umich.edu). We are ahead of the game on this activity, thanks to the continuing efforts of Maghnild Lien from Cal State Northridge.

According to the MAA Executive Director Tina Straley, the MAA is preparing a NSF proposal to support a more active involvement of Two-Year College faculty on issues of national interests to Mathematics. She is asking for ideas and suggestions regarding this initiative.

In the next few months we will be able to download the list of invited speakers by all sections during the last three years. This opportunity should be very helpful for the Program Chairs of all sections.

Other activities and events

I want to mention at least three important points.

The next president of the MAA is Ronald Graham, University of California, San Diego. After Ann Watkins from Cal State Northridge, our section is providing MAA with the next President. Ron will be one of our speakers at the Spring Meeting at Harvey Mudd College on March 8.

Judith Grabiner, from Pitzer College, is one of the three recipients of the Deborah and Franklin Tepper Haimo Awards for Distinguished College or University Teaching of Mathematics. Congratulations to Judith! We had already one national award when we submitted the nomination of Arthur Benjamin from Harvey Mudd College. We need more!

Carolyn Staples, a Claremont McKenna College undergraduate, gave a talk in Burlington on Chaos in the Solar System, research she did during this past summer under the supervision of Mike O'Neill and myself. The talk was on Thursday, August 1, during one of the sessions of the combined MAA-Pi Mu Epsilon program organized by Thomas Kelley (Henry Ford Community College).

—Mario Martelli
(Claremont McKenna College)
mario.martelli@claremontmckenna.edu.

Treasurer's Report

August 7, 2002

Balance on August 1, 2001	15248.51
PFF Money Market	3026.90
PFF Spring CD	1054.71
PFF Fall CD	11166.90

Expenditures	9688.03
Loyola Marymount Meeting	2619.95
Caltech Meeting	5218.14
Newsletter	1782.69
Teaching Award	37.70
Miscellaneous	29.55

Income	11904.08
2002-2003 Subvention	2000.00
Loyola Marymount Meeting	4000.00
Caltech Meeting	4917.00
Book Sales	470.24
Interest	516.84

Balance on August 7, 2002	17464.56
PFF Money Market	4768.20
PFF Spring CD	1093.50
PFF Fall CD	11602.86

Respectfully submitted,

Art Benjamin
Secretary-Treasurer
Harvey Mudd College



(News of the Section continued from page 3)

masters degree in computer science. He worked as an advisor at the summer REU program Summer Institute in Mathematics for Undergraduates in Puerto Rico and he will be an excellent resource for our students who want to pursue mathematics research. **Blake Mellor** is an assistant professor who comes to us from Honors College, Florida Atlantic University. An excellent topologist with a special interest in combinatorial approaches to knot theory, he will be an excellent complement to their other topologists. Blake also has a strong commitment to teaching mathematics in a liberal arts setting.

The Department of Mathematics, Computer Science and Physics at **Chapman University** is pleased to welcome **Peter Jipsen**, **Mihaela Vajiac** and **Adrian Vajiac** to the department.

Jipsen's research is on Logic and Universal Algebra and its applications to Computer Science. Vajiac is interested in the interaction of Symplectic Geometry and Integrable Systems. Vajiac's primary research interests are in the area of Differential Geometry and Mathematical Physics.

At **Bakersfield College**, they have two new tenure-track faculty, **Mary Jo Anhalt** and **Richard Brantley** and one retirement, **Sharon Edgmon** after 27 years of teaching at Bakersfield (40 years overall!). They also have a new Math Learning Center Coordinator, **Carol Smith**. Carol has been teaching full-time for one year at BC, is now ready to take on the challenge of the coordinator's job!

David Hunter of **Westmont College** has been promoted from Assistant to Associate Professor.

Santa Monica College welcomes **Brian Rodas** to its full-time faculty. Brian is a Loyola Marymount University graduate, who comes to us from the University of Maryland.

REGISTER FOR THE FALL MEETING!

Complete the form below and send it with payment to:

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

Registration deadline is Friday, October 4, 2002.

Pre-Registration/Luncheon Reservation Form

Fall Meeting at Cerritos College

October 12, 2002

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
Registration Only	_____ @ \$22	_____ @ \$20	_____ @ FREE	_____ @ \$10
Registration and Luncheon	_____ @ \$37	_____ @ \$35	_____ @ \$15	_____ @ \$18
Registration and Vegetarian Lunch	_____ @ \$37	_____ @ \$35	_____ @ \$15	_____ @ \$18

Total Enclosed \$ _____

Questions or problems? Contact:

Ernie Solheid, Email: esolheid@fullerton.edu,
phone: (714) 278-7023



Our Section is changing its borders!
For more information see page 1. Welcome, Southern Nevada!



See what's happening at Southern California colleges and universities.
Read *News of the Section* on page 3 and be sure to share your news in
the next issue of our Newsletter.

Plan to attend the Fall Meeting at
Cerritos College on Saturday, October 12, 2002!

- Program and directions on pages 4-5; Registration form on page 7.
- Registration is only \$10 for students.
- Registration is free for *new* MAA members attending their first Southern California Section Meeting.



Newsletter

Mathematical Association of America

Southern California Section

Lars Kjeseth, Newsletter Editor

El Camino College

Division of Mathematical Sciences

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