



Southern California–Nevada Section
Mathematical Association of America
NEWSLETTER



Volume LIII, Number 1

September 2011

**Southern California-Nevada Section to Meet
Saturday, October 15, 2011, at Cal State Los Angeles**

Come join us for invited addresses on graph pebbling and undergraduate research, combinatorial reciprocity theorems viewed geometrically, and how mathematics sheds light on the mystery of “dark matter”!

*Ivona Grzegorzcyk, California State University - Channel Islands
MAA Southern California-Nevada Section Chair*



*Alissa Crans (left) of Loyola Marymount University and Sarah Eichhorn of UC Irvine received the MAA Alder Award at MathFest in Lexington, Kentucky.
Photo by Magnhild Lien.*

Fall 2011 Meeting. Welcome to a fall semester that is starting off with lots of sunshine! I hope to meet everyone on Saturday, October 15, 2011, at California State University, Los Angeles, for our Fall Section Meeting. Our invited speakers will include Don Saari, Cindy Wyels, and Matthias Beck. There also will be Contributed Paper Sessions and the popular MAA Book Sale. **Don Saari**, Distinguished Professor of Mathematics and Economics and Director of the Institute for Mathematical Behavioral Sciences at the University of California, Irvine, will present “Mathematics and the Mystery of ‘Dark Matter’,” including mathematics we can share with our calculus students as well as cutting-edge research. **Cindy Wyels**, Director of the Graduate Program

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Section to Meet ...** is
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Fall 2011 Meeting.**

Register online at the
Section website:
<http://sections.maa.org/socalnv/>

MAA Fall 2011 Meeting, *continued*

at California State University, Channel Islands, and winner of this year's MAA Southern California-Nevada Section Distinguished Teaching Award and the MAA Haimo Award for Distinguished College or University Teaching, will speak to us about her graph theory research with undergraduate students in her presentation, "Unexpected Outcomes in Undergraduate Research." **Matthias Beck**, Associate Professor of Mathematics at San Francisco State University, will present a variety of "Combinatorial Reciprocity Theorems," approached geometrically. At the Fall Meeting, we also will have exciting and diverse Contributed Paper Sessions and there is still time to send in your proposal to give a short talk! We all will have interesting conversations over lunch, and you will find new and discounted books at the MAA Book Sale and information about other mathematical events in our region at the registration and book sale tables.

Calling all graduate students! Additionally, all graduate students are invited to bring their resumes and our faculty will review them and give pointers for improvement. Students are invited to bring academy and/or industry versions of their resumes.

MAA MathFest in Lexington, Kentucky. Many of our section members attended MathFest August 4-6, 2011, in Lexington, Kentucky, where they fry their food and love their horses. The host city made it clear that horses and history matter, in hotel décor, public art, street names, local gift shops, prime tourist attractions, and more. The famous Kentucky Derby racing track is surrounded by beautiful rolling green hills. Mathematics talks ranged from the role of algebraic curves by Princeton's Manjul Bhargava to infectious disease prevention and control by Lauren Ancel Meyers of the University of Texas. *MAA: The Musical*, featuring an all-star cast of mathematicians, plus games, panels and numerous talks gave everyone something interesting to enjoy. In the meantime, the Board of Governors confirmed Michael Pearson as the new Executive Director, and MAA section chairs' discussion revolved about current budgetary issues and the possibility of extending the MAA visitors program to European countries. MathFest was busy and it was lots of fun!

Future Meetings. Please do not forget to mark your calendars for the Spring Section Meeting, to be held at CSU Fullerton on Saturday, April 14, 2012. We are inviting another great lineup of speakers for that event and we plan to have a great poster session to show off student research.

I hope you can participate in both of our section meetings this academic year! See you Saturday, October 15, at Cal State LA!

Deadlines for 2011 Fall Section Meeting at California State University, Los Angeles:

Contributed paper for Fall Meeting: Friday, September 30, 2011 (see page 6)

Mail-in pre-registration for Fall Meeting: Monday, October 10, 2011 (page 8-9)

Online pre-registration for Fall Meeting: Tuesday, October 11, 2011, 5 p.m.

(Online pre-registration at our section website <http://sections.maa.org/socalnv/> begins Monday, September 12, at 8 a.m.)

Fall Meeting Schedule

Saturday, October 15, 2011

Annenberg Science Complex, California State University, Los Angeles

- 8:45 – 12:00 **Registration** – Annenberg Science Complex Courtyard
- 8:45 – 10:30 **Refreshments** – Annenberg Science Complex Courtyard
- 8:45 – 9:30 **Graduate Student CV Submission** – Drop off your c.v. for review at the registration table, Science Complex Courtyard. (See page 6.)
Organized by Ivona Grzegorzczuk, Cal State Channel Islands
- 9:00 – 2:30 **MAA Book Sale** – Annenberg Science Complex Courtyard
Organized by Michael Hoffman, Richard Katz, Cal State Los Angeles
- 9:30 – 10:30 **Invited Address by Matthias Beck, San Francisco State University**
Annenberg Science Complex, Wing B, Lecture Hall

Combinatorial Reciprocity Theorems

A common theme of enumerative combinatorics is counting functions that are polynomials. For example, one proves in an introductory graph theory course that the number of proper k -colorings of a given graph G is a polynomial in k , the *chromatic polynomial* of G . Combinatorics is abundant with polynomials that count something when evaluated at positive integers, and many of these polynomials have a (completely different) interpretation when evaluated at negative integers: these instances go by the name of *combinatorial reciprocity theorems*. For example, when we evaluate the chromatic polynomial of G at -1 , we obtain (up to a sign) the number of *acyclic orientations* of G , that is, those orientations of G that do not contain a coherently oriented cycle. Combinatorial reciprocity theorems appear all over combinatorics. This talk will attempt to show the charm (and usefulness!) these theorems exhibit. Our goal is to weave a unifying thread through various combinatorial reciprocity theorems, by looking at them through the lens of geometry.

- 10:30 – 10:50 **Section Business Meeting** – Science Complex Lecture Hall
Recognition of 25- and 50-year MAA members
- 10:55 – 12:10 **Contributed Paper Sessions** – Salazar Hall
Organized by Jen-Mei Chang, Cal State Long Beach
(See **Call for Contributed Papers**, page 6.)
- 12:15 – 1:25 **Luncheon** – Golden Eagle Ballroom, Golden Eagle Building

MAA 2011 Fall Meeting Schedule, *continued from page 3*

1:30 – 2:30

Invited Address by Cindy Wyels, Cal State Channel Islands
Annenberg Science Complex, Wing B, Lecture Hall

Unexpected Outcomes in Undergraduate Research

Graph labeling constitutes an engaging area of research with myriad open problems, some of which are relatively accessible, yet still demanding and intriguing. As such, several types of graph labeling offer an excellent entry point into research. Student participation in undergraduate research can enhance a student's education, or it can transform a life. Faculty mentoring of undergraduate research can supply intellectual excitement, fascinating challenges, and a means of giving back. This talk will contain arguments for immersion in undergraduate research – particularly with students from non-traditional backgrounds – as well as an overview of several absorbing student research projects in graph labeling, and stories about students and one faculty member whose lives are now far different than they would have imagined before their participation in undergraduate research.

2:30 – 3:00

Refreshments – Annenberg Science Complex Courtyard

2:45 – 2:55

Graduate Student CV Retrieval – Pick up your reviewed c.v. from the registration table, Science Complex Courtyard. (See page 6.)

3:00 – 4:00

Invited Address by Don Saari, University of California – Irvine
Annenberg Science Complex, Wing B, Lecture Hall

Mathematics and the Mystery of "Dark Matter"

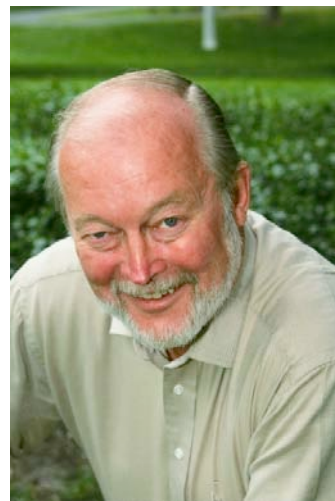
Even after spending billions of dollars on experiments, nobody has been able to find that elusive, mysterious thing hiding out there in the heavens that is called "dark matter." Sounds ominous; but, what is it? Why do we believe it is important? As described in this lecture, the mystery comes from a mathematical expression that can be taught in a freshman calculus class. As also described, mathematics is now shedding significant new light on this darkness to lighten up the mystery.

**Calling all faculty and students with
mathematical and pedagogical ideas to share!**

Submit a proposal for a 15-minute talk to be given during the Contributed Paper Sessions at the Fall Section Meeting. Submission deadline: Friday, Sept. 30, 2011. (See page 6.)

About the Fall Meeting Speakers

After a Purdue math PhD and a Yale postdoc in astronomy, **Don Saari** spent the next several decades in the Northwestern University math department. Then, coming from a Nordic Lutheran background, he discovered to his surprise that it is not a mortal sin to be comfortable by living in a warm area! So in 2000, he moved to UC Irvine where he is a distinguished professor in the math and econ departments and the director of the Institute for Mathematical Behavioral Sciences. He is a member of the National Academy of Sciences and the American Academy of Arts and Sciences.



Cindy Wyels first learned to appreciate mathematics at Pomona College, earning a BA there in 1986. After receiving her Ph.D. from the University of California, Santa Barbara, in 1994, she took positions at the United States Military Academy and Weber State University, then spent several formative years at California Lutheran University. Growing interest in access to higher education led her to CSU Channel Islands, where she has directed the graduate program in mathematics since its inception. Over the years she has become more cognizant of the barriers facing low income, first generation, and historically underrepresented students, and has worked more actively to help students dream ambitiously and overcome obstacles. She is an advocate of undergraduate research and believes the experience can have a particularly strong impact on students from non-traditional backgrounds. Her research interests are in combinatorics, most recently in graph pebbling and graph labeling.



After studies at the University of Würzburg (Germany), SUNY Oneonta, and Temple University, and postdoctoral positions at SUNY Binghamton, the Mathematical Sciences Research Institute, and the Max Planck Institute in Bonn, **Matthias Beck** arrived at San Francisco State University, where he is currently an Associate Professor in the Mathematics Department. His research is situated in the intersection of combinatorics, geometry, and number theory; he is particularly fond of counting integer points in polyhedra and the application of these enumeration functions to various combinatorial and number-theoretic topics and problems. He co-authored two books and many research papers, more than a third of which feature student co-authors. He has mentored numerous graduate students at



Fall Meeting Speakers, *continued*

SF State and UC Berkeley, directs the NSF-sponsored (CM)² Grade K-12 program at San Francisco State, and is one of the co-directors of the San Francisco Math Circle.

Call for Contributed Papers for the Fall 2011 Meeting

Faculty and students (undergraduate and graduate) are invited to submit short proposals for 15-minute talks in the Contributed Paper Session of the MAA Southern California-Nevada Section Fall Meeting, to be held Saturday, October 15, at Cal State Los Angeles. All topics will be considered with an emphasis on combinatorics, graph theory, undergraduate research, and physics and astronomy in the undergraduate mathematics classroom to complement the invited presentations. The selection of talks will be based on interest to the expected audience and on scheduling constraints.

Submissions for all contributed papers should contain a title, an abstract (not to exceed one-half page in 12-point font and suitable for inclusion in the conference program), the desirable mathematical background of the audience, and any special presentation display needs other than an overhead projector.

Ideally abstracts should be submitted in LaTeX format, with an accompanying PDF file. If you do not use LaTeX, please submit a text document together with a PDF file. Please email all submissions to Jen-Mei Chang at jchang9@csulb.edu.

Submission deadline: Friday, September 30, 2011.

Great Books, Great Bargains at MAA Book Sale!

The 2011 Fall Meeting at Cal State Los Angeles will include the ever-popular MAA Book Sale, run by Mike Hoffman and Dick Katz of the host institution. Book prices at the meeting will be about 10% less than the already discounted MAA member prices.

Free CV Review for Graduate Students!!!

Are you applying for faculty positions or other jobs this year? Have you crafted your resume already? Are planning to do it soon? If you bring three hard copies of your CV to the Fall Meeting at Cal State LA, a group of local mathematicians will review it for you. They will look for ways to improve your resume so that you are more competitive on the job market. Please leave your CV at the registration table before 9:30 a.m.; it will be reviewed and ready for pick-up by 2:45 p.m. You may bring academic and industrial versions, which highlight different relevant achievements. You will receive an evaluation rubric and comments on how to improve the content and/or the presentation of your CV. And good luck in your job hunt! Meeting attendees only. Questions? Contact Prof. Ivona Grzegorzcyk at ivona.grzegorczyk@csuci.edu

MAA Southern California-Nevada Section Fall Meeting

Saturday, October 15, 2011

Annenberg Science Complex, California State University, Los Angeles

Where to Park and Where to Register

Download an interactive app that maps directions to campus:

<http://www.calstatela.edu/misc/trans/index.php>

Download a Cal State LA campus map:

<http://www.calstatela.edu/univ/maps/cslamap.php>

The easiest visitor parking to find and use is atop Parking Structure C (at the north end of campus). It is metered parking where you pay at a kiosk and put the receipt on your dashboard. Parking is \$6 for a day pass, and the machines take bills or plastic. (Note that Parking Structure A and Parking Lot 2 are closer to our meeting venue.)

The first invited address (and all the invited addresses) will be in the brand new Lecture Hall in the brand new Wing B of the Annenberg Science Complex (Building 27B on the campus map). Registration, refreshments, and the Book Sale will be in the courtyard outside this building. The contributed talks will be in Salazar Hall (Building 15A), while lunch will be in the Golden Eagle Ballroom on the third floor of the Golden Eagle Building (Building 6).

Hotels Near Cal State Los Angeles

Pasadena. In general, Pasadena and its hotels are pleasant and convenient if you have a car. For example, the Pasadena Marriott currently has a standard rate for the meeting date (Friday to Saturday) from \$132.20 + tax. Cheaper rates might be available via the regular reservation number, 1-800-321-2211. An alternative, a little bit further east, close to the Santa Anita Mall, is the [Residence Inn Pasadena Arcadia](#), which has rates starting at 99.00 + tax.

Monterey Park. The Best Western Monterey Park Inn on Atlantic Avenue in Monterey Park is relatively close to campus and is within walking distance of cafes and restaurants. Phone: (626)289-5090. Rates are about \$75-\$85, 10% less with AAA discount. For other hotels close to Cal State LA, try <http://www.smoothtrips.com>. On the web page under "Or Near ..." choose "colleges," then "California," then scroll down to select California State University Los Angeles. You should get a long list of hotels near CSULA.

Some hotel chains have special rates for CSU (or state) employees. Be sure to check the individual websites of the chain hotels.

Pre-registration for Fall Meeting

California State University, Los Angeles
Saturday, October 15, 2011

Participants can register online (using a credit card) via the link at the section website <http://sections.maa.org/socalnv/>. Online registration will be available from Monday, September 12, at 8 a.m., to **Tuesday, October 11, at 5 p.m.**

Participants also may register by mail by **Monday, October 10, 2011**. Either send the registration form on page 9 of this newsletter, or send your

Name
Affiliation
Address
E-mail address
Lunch preference (vegetarian or non-vegetarian)

along with appropriate payment (a check for the amount shown below made payable to **Southern California-Nevada MAA**) to:

Ernie Solheid
Department of Mathematics
California State University, Fullerton
800 N. State College Blvd.
Fullerton, CA 92834

Registration and luncheon:

MAA member: \$50
Non-member: \$55
Student: \$25

Registration only (no luncheon):

MAA member: \$35
Non-member: \$40
Student: \$15

Mail-in registrations should be received by Monday, October 10, 2011.
Online registrations must be completed by Tuesday, October 11, at 5 p.m.

On-site meeting registration is available for \$5 more than pre-registration.

Questions or problems? Contact Ernie Solheid, Meeting Coordinator
Email: esolheid@fullerton.edu
Phone: (657) 278-7023

Help Write Our Section History!

Do you have a special memory of an MAA Southern California Section meeting, event, or personality? Please share it with Ernie Solheid (contact information at left and below).

Join the Section e-mail list!

Register at the Section website:
<http://sections.maa.org/socalnv/>

Look for the "Join the Mailing List" box.

Fall Meeting Pre-Registration / Luncheon Reservation Form

California State University, Los Angeles, Saturday, October 15, 2011

Enter the number of registrations of each type in the appropriate blank in the table below.
Make checks payable to **Southern California-Nevada MAA**.

Name(s) _____

Affiliation _____

Address _____

E-mail address(es) _____

	MAA Member	Non-member	Student
Registration only	_____ @ \$35	_____ @ \$40	_____ @ \$15
Registration and Luncheon	_____ @ \$50	_____ @ \$55	_____ @ \$25

Total Enclosed \$ _____

The MAA national office has requested the following information. Please check all boxes that apply to you—or enter appropriate numbers for multiple registrations.

Faculty member at college or university with highest degree offered:

_____ Associate _____ Bachelors _____ Masters _____ Doctorate

_____ High school teacher _____ Business/Industry/Government

_____ Undergraduate student _____ Graduate student

Save these dates for future MAA national meetings!

Winter 2012	Boston, MA	January 4-7
Summer 2012	Madison, WI	August 2-4
Winter 2013	San Diego, CA	January 9-12
Summer 2013	Hartford, CT	August 1-3
Winter 2014	Baltimore, MD	January 15-18
Summer 2014	Portland, OR	August 7-9
Winter 2015	San Antonio, TX	January 10-13
Summer 2015	Washington, DC	August 5-8
Winter 2016	Seattle, WA	January 6-9
Winter 2017	Atlanta, GA	January 4-7
Winter 2018	San Diego, CA	January 10-13

The Students' Column

*Cynthia Wyels, Student Chapters Coordinator
California State University, Channel Islands*

The Spring 2011 Student Poster Session

This iteration of the annual Student Poster Session was one of the best in recent memory! The quality of the posters and the range of topics were superb. For a mind-boggling quick look at only some of the topics presented, consider the many applications of mathematics studied: disrupting terrorist networks, distinguishing nearby tones in music, determining how long people might wait in line for various rides at amusement parks, algorithmically determining packing efficiency, comparing potentially related sets of partially ranked data, scoring competency at sight-reading music, analyzing geographical data captured using specialized technology, AES encryption, biochemistry, and more. Other topics included various aspects of semigroups, radio numbers, classification of cubic surfaces in different spaces or satisfying certain restrictions, graph pebbling, circular Nim, a solution to a Mathematical Contest in Modeling problem, integral domains, Lucas numbers, chromatic numbers of graphs, generalized functions and Fourier domains, fixed points, modeling fluid flow, an invariant of finite field extensions, and more. Different research projects in mathematics education revolved around measuring the effect of using Mayan mathematics as a tool to teach mathematics in a cultural context, and determining the influence of a) teaching with manipulatives and b) using games in developing students' understanding of college algebra. Wow! The students in our section are clearly engaged in a variety of in-depth investigations and research projects. In all, 46 students presented 34 posters. Many thanks to all the individuals who volunteered their time and expertise to interact with the presenters, providing them the chance to share their results and their new understanding, and to receive feedback and encouragement.

Fall Meeting, Saturday, October 15, 2011

You'll find all the information you need about the Fall Meeting of our MAA section elsewhere in this newsletter. This is a friendly, relatively close-by, one-day meeting: the perfect introduction to mathematical meetings. More experienced students don't need convincing, but they might consider participating in the Contributed Paper Session if they have a project ready for a short oral presentation. Check out the program in this newsletter, get your friends who appreciate some mathematics together, and attend!

Get beyond the classroom

Meetings and seminars, extra-curricular mathematics projects, the Putnam Exam and the Mathematical Contest in Modeling, summer or academic-year research opportunities, mathematics-related internships: these are just a few of the ways you can broaden your thinking, put your classroom learning to use in new situations, and learn new mathematics. Talk to more experienced students, recent graduates, and your professors, and look for information on the web, at your school's Career Center, and anywhere you can find it. You might start at <http://www.maa.org/students/career.html> and <http://www.maa.org/awards/putnam.html>.

The Students' Column, *continued*

Boston in January?

While you may not think of the Northeast as the ideal January destination, the largest annual math conference in the U.S. – probably in the world – will be in Boston, January 4–7, 2012. The Joint Mathematics Meetings include technical research presentations, survey talks, poster sessions, often movie showings and musical performances, and much more. The Student Poster Session has become one of the highlights of the meetings. Information on all student activities planned for these meetings may be found at http://jointmathematicsm meetings.org/meetings/national/jmm2012/2138_students.

Meanwhile, it's never too early to start thinking about presenting a poster at the 2012 Spring Meeting of the So Cal-NV Section of the MAA. This meeting is tentatively scheduled to be at CSU Fullerton on April 14. Detailed information will be in the winter newsletter. But start planning now: your poster could feature the results of any individual or group mathematics project, including:

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

Message from the MAA Southern California-Nevada Section Governor

*Magnhild Lien, 2010-2013 Section Governor
California State University - Northridge*

At MathFest 2011 in Lexington, Kentucky, I attended my third Board of Governors (BOG) meeting. As one might expect, these meetings are often quite routine, as we review reports from various constituencies, including the MAA officers, and staff from the Washington Office. However, there always seems to be a few items that catch our attention and a more substantial discussion follows. This year, as in the past couple of years, the presentation of the financial report and the 2012 budget proposal created more of a buzz. While we were assured that MAA is financially sound, it was acknowledged that the Association temporarily has had to deal with repeated deficits. However, the Budget Committee presented a balanced budget proposal for 2012. The Association has to be a bit more austere when it comes to spending as revenue continues to decrease. For example, lunch is no longer provided for the governors during the daylong BOG meeting. If you are not too overwhelmed with your own situation during these challenging economic times and want to learn more about MAA's finances, you are welcome to visit the web page <http://www.maa.org/treasurer/> (MAA member login required) for a financial report.

Message from the Section Governor, *continued*

For the third year in a row, a member of our section will be a recipient of the 2012 Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics. **Congratulations go to Cindy Wyels**, California State University, Channel Islands, for receiving this recognition, following Erica Flapan (2011) and Curtis Bennett (2010). The award will be presented to Cindy at the Joint Prize Session at the JMM in Boston in January 2012. Cindy received our Section Teaching Award in Spring 2011 and will be one of the speakers at our section's Fall Meeting on Saturday, October 15, 2011, at Cal State LA.

During the executive session of the BOG meeting, in addition to approving the recommendations for various prizes and awards, including the Haimo Award, the governors elected a Governor-at-Large, Teacher Education. Jacqueline Dewar, Loyola Marymount University, was elected to this position and she will begin serving a 3-year term as governor next year. **Congratulations to Jackie Dewar!** As many of you know, Tina Straley is retiring from her position as Executive Director of the MAA in December 2011. During the BOG meeting, the governors were pleased to approve the



Southern Californians Francis Su (top left), Talithia Williams (fifth from left in top row), Art Benjamin (bottom left), and Alissa Crans (third from left in bottom row), and the rest of the cast of MAA: The Musical! take a curtain call after the show at the 2011 MathFest in Lexington, Kentucky. There has been no announcement as to if and when the troupe, known as the “MAA Players,” will repeat their performance.

Message from the Section Governor, *continued*

recommendation that Michael Pearson be appointed Executive Director. Michael has worked with the MAA for many years and is currently Associate Executive Director, Director of Programs and Services.

Each year, every MAA section is eligible to have one person from among the Association leadership attend and participate in a section meeting, with all travel expenses borne by the MAA. Sections are not expected to provide the visitor with an honorarium or stipend. The purpose of this program is to maintain close links between the MAA leadership and the sections.

MAA urges you to consider MAA publications when choosing textbooks for your classes. In MAA Publication Director Ivars Peterson's words: "**MAA Textbooks Are a Good Deal!** MAA textbooks provide very good value for the price. It is still the case that every one of our books, textbooks or otherwise, is priced well below \$100."

If you have questions or concerns that should be brought to the Board of Governors, please feel free to contact me via email at magnhild.lien@csun.edu or by phone at 818-677-6424, or to catch me at the section meetings.

MathFest in Lexington was exciting. As always there were many activities to choose from, invited addresses, contributed paper sessions, panels, and mini-courses, as well as recreational activities including a backgammon tournament, which I understand lasted well into the night. One of the highlights was *MAA: The Musical*, which concluded the opening banquet.

Among its brilliant cast of mathematicians were four of our section members, Francis Su, Art Benjamin, Alissa Crans, and Talithia Williams, and two former members, Dan Kalman and Jenny Quinn. An audio recording of the musical can be found on <http://www.maa.org/mathfest/>. Unfortunately, there were some technical problems so the performance was not videotaped.



Francis Su (second from left) and Art Benjamin (second from right) of Harvey Mudd College perform in MAA: The Musical! during the 2011 MathFest in Lexington, Kentucky.

One cannot help being awed by the talented members of our section. At the Prizes and Awards session several section members were recognized. The Carl B. Allendoerfer Awards are made to authors of expository articles published in the *American Mathematical Monthly*. Curtis Bennett, Blake Mellor, and Patrick D. Shanahan, all from Loyola Marymount University, received the award for their article, "Drawing a Triangle

Message from the Section Governor, *continued*

on the Thurston Model of Hyperbolic Space,” published in *American Mathematical Monthly*, vol. 83:2 (2010), pages 83-89.



Blake Mellor receives the Allendoerfer Award from MAA President Paul Zorn on behalf of himself and Loyola Marymount University colleagues and co-authors Curtis Bennett and Patrick Shanahan.

The Merten M. Hasse Prize is designed to be an encouragement to younger mathematicians to take up the challenge of exposition and communication by recognizing a noteworthy expository paper appearing in an MAA publication with at least one relatively young author. Alissa Crans of Loyola Marymount University, Thomas M. Fiore, and Ramon Satyendra received this year's Hasse Prize for their article, “Musical Actions of Dihedral Groups,” in the *American Mathematical Monthly*, vol. 116:6 (2009), pages 479-494.

Two section members, Alissa Crans, Loyola Marymount University, and Sarah Eichhorn, UC Irvine, received the Henry L. Alder Award for Distinguished

Teaching by a Beginning College or University Mathematics Faculty Member. They both gave inspiring presentations, “*Count Me In!*” by Alissa and “*Lessons Learned in Year One of Calculus Coordination*” by Sarah, at the Alder Awards Session. See page 1 of this newsletter for a photo of the two winners.

Congratulations to 25- and 50-Year MAA Members!

Congratulations to the following members of the Southern California-Nevada Section who have been MAA members for 50 years!

Gerald L. Bradley
Donald G. Saari
Henry F. Bunch
William Margulies
Neil E. Gretsky

William O. Alltop
Curtis N. Browne
Charles T. Zahn
Paul H. Palmquist

Congratulations also to the following members of the Southern California-Nevada Section who have been MAA members for 25 years!

Robert J. Cornelison
David A. Short

Kenneth K. Warner
Usher J. Rettke

These members will be recognized during the Business Meeting of our upcoming MAA Southern California-Nevada Section Fall Meeting October 15 in Los Angeles.

Cindy Wyels Wins Section Teaching Award

*Silvia Heubach, 2010-11 Section Vice-Chair
California State University - Los Angeles*

The recipient of the Southern California-Nevada Section's 2011 Distinguished Teaching Award, Professor Cindy Wyels from California State University, Channel Islands, is well-known to many of the students in the section as the organizer of the Student Poster Session at each Spring Meeting since 2004. This activity is part of a bigger picture: her dedication to introducing undergraduates – especially native Spanish speakers and first generation college students – to research in mathematics. Since 2004, Dr. Wyels has directed Research Experiences for Undergraduates (REUs) at California Lutheran University and later at CSU Channel Islands. A total of 63 undergraduates participated in these programs through 2010, with 38 from underrepresented groups. She also played a key role in a CSU Channel Islands summer program to engage local community college students in research.



Professor Wyels is a remarkable teacher who consistently receives excellent teaching evaluations from her students. She thinks creatively and carefully about her courses and the activities that will best lead to student learning. She employs a wide variety of instructional techniques in order to match a wide variety of student learning styles, including lecture, small group activities, self-paced computer labs, problem sets, and projects. As one student put it, "I can honestly say you are the best professor I have ever had!" Another one wrote: "Her passion and energy for teaching inspires and motivates her students, and her manner is both warm and approachable."

Professor Wyels' interest in excellence in teaching also extends to mentoring her colleagues. Perhaps most noteworthy is her role as cofounder and co-director of the Critical Friends Group (CFG) at CSU Channel Islands. Faculty from all disciplines meet biweekly for two hours to work on specific teaching dilemmas, to discuss pedagogical literature, and to provide each other with insight and support. Half of the tenure-track mathematics faculty at CSU Channel Islands participate in this group, which has resulted in a cultural shift of the pedagogical attitudes in the math department.

The MAA announced in early August that Dr. Wyels also will receive the MAA's national award for outstanding teaching, the Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics, during the 2012 Joint Mathematics Meetings in Boston, Mass., Jan. 4-7.

Wyels Wins Section Teaching Award, *continued*

Cindy Wyels received her Ph.D. from UC Santa Barbara in 1994. Prior to joining CSUCI, Dr. Wyels served as chair of the mathematics department at California Lutheran University; her faculty experience also includes Weber State University and the United States Military Academy. She is director of the masters program in mathematics and the Louis Stokes Alliance for Minority Participation program at CSU Channel Islands. Dr. Wyels' research interests are combinatorial mathematics and linear algebra. Most recently she has focused on questions in graph pebbling, a topic that she has used very successfully in REUs.

Dr. Wyels will give the invited address, "Unexpected Outcomes in Undergraduate Research," at our Fall Section Meeting, to be held Saturday, October 15, at Cal State Los Angeles.

Our section's Distinguished Teaching Award honors college or university teachers who have been widely recognized as extraordinarily successful and whose teaching effectiveness has been shown to have had influence beyond their own institutions. Recipients of the section award then become nominees for the national [Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics](#). During the past 12 years, we have had seven of our section winners (Art Benjamin, Curtis Bennett, Jaqueline Dewar, Erica Flapan, Judith Grabiner, Jennifer Quinn, and now Cindy Wyels) subsequently receive the Haimo Teaching Award.

This year's selection committee was chaired by Magnhild Lien (CSU Northridge), with members Scott Annin (CSU Fullerton), Art Benjamin (Harvey Mudd College), Curtis Bennett (Loyola Marymount), and Florence Newberger (CSU Long Beach).

It's never too early to consider nominating a colleague for the 2012 award (see page 19) or to volunteer to serve on the 2012 committee. Serving on the committee is fun and easy and is a great way to find out how to put together an effective nomination package. Please contact Section Secretary Kathryn Leonard or Section Vice Chair Min-Lin Lo if you are interested in serving.

News from the Campuses of the Southern California-Nevada Section

The **California State University - Fullerton** (CSUF) Mathematics Department has hired two new statisticians. **Kamal Hamidieh** earned his Ph.D. in statistics from the University of Michigan, Ann Arbor, and comes to us after completing a post-doc at Rice. His research interests include statistics of extremes with applications to risk management in finance and weather. **Kevin Nichols** just completed his Ph.D. in statistics at UCLA and has research interests in spatial statistics with an emphasis on application to earthquake and wildfire data.

Mathematics educator **Martin Bonsangue** was chosen as CSUF's 2010-11 Outstanding Professor, the highest honor bestowed by the university. Marty is a longtime

News of the Section, *continued*

champion of developing better mathematics teaching skills for teachers at all levels from elementary school through college.

On May 4-6, the Mathematics Department hosted the first in a series of workshops jointly organized by Zair Ibragimov of CSUF and Bakhrom Abdullaev of Urgench State University in Uzbekistan. The aim of the workshops is to establish research collaborations between mathematicians from Uzbekistan and the United States.

Bogdan Suceava is organizing the Fullerton Mathematical Circle for students in grades 7–9 to nurture young mathematicians and to help prepare them for mathematics competitions. The inaugural session will be held at Cal State Fullerton on Saturday, September 24.

California State University – Los Angeles (CSULA) is pleased to welcome **Liming Wang** as our newest faculty member. Liming received her PhD from Rutgers University in 2008 and was a Visiting Professor at UC Irvine for the last three years. Her area of expertise is in Applied Mathematics. In other news, **Anthony Shaheen** has received tenure and was promoted to the rank of Associate Professor. **P.K. Subramanian** has retired after a long and distinguished career, and we wish him well in his retirement.

At **Claremont Graduate University (CGU)**, **John Angus** stepped down as Dean of the School of Mathematical Sciences on June 30, 2011. He has been replaced by Emeritus Professor **Ellis Cumberbatch**, who will serve as Interim Dean for the 2011-2012 academic year.

Professor Angus joined CGU in 1990 as an associate professor of mathematics, becoming full professor in 1993. Prior to that, he was a senior scientist with Hughes Aircraft Company in Fullerton, California. His systems engineering career at Hughes spanned 15 years. In 2001, he became chairman of the CGU mathematics department. He led efforts to elevate the math department to the status of a school, the School of Mathematical Sciences (SMS); to create the Master of Science program in Financial Engineering (MSFE); and to establish the Joint Ph.D. program in Computational Science with San Diego State University.

El Camino College – Compton Center welcomed three new full-time faculty members in Spring 2011. They are **Patricia Stoddard**, **Abigail Tatlilioglu**, and **Ruth Zambrano**.

The **Loyola Marymount University (LMU)** Mathematics Department is extremely pleased to welcome three new faculty members beginning Fall 2011.

Anna Bargagliotti, Assistant Professor of Mathematics, is interested in nonparametric statistics, mathematics education, and statistics education. Her nonparametric statistics work focuses on how ranked data structures affect nonparametric test outcomes. Her education work aims to understand how teaching practices and technology affect the teaching and learning of mathematics and statistics. Dr. Bargagliotti received her Ph.D. in mathematics from UC Irvine and her M.S. in statistics from UCLA.

Angela Gallegos, Associate Professor of Mathematics, is interested in biological modeling and she has used differential equations to do so. Dr. Gallegos received her Ph.D. from UC Davis in 2005 and her B.A. from New York University in 1999.

News of the Section, *continued*

Yanping Ma, new Assistant Professor of Mathematics at LMU, is interested in applied mathematics, especially biomathematics. Dr. Ma received her Ph.D. in applied mathematics with a minor in statistics from Pennsylvania State University in 2011 and her B.S. from the University of Science and Technology of China in 2006.

Pierce College welcomes **Jacob Veiga** as a new full-time math faculty member this fall. Jacob, although originally from California and with a Master's degree from UCI, comes to us via New York, where he was a full-time math instructor at Bronx Community College.

Mihai Putinar of the **University of California – Santa Barbara (UCSB)** received the National Order of Merit of Romania, which was awarded by the President of Romania in recognition of his outstanding scholarship.

At the **University of Redlands**, **Joanna Bieri** received the university's Outstanding Teaching Award and **Beth Doolittle** was named Mortar Board Professor of the Year.

At the **University of San Diego (USD)**, Dr. **Lynne Small** retired from the USD Department of Mathematics & Computer Science after many devoted years of service to our students, our department and our university. We already miss her wisdom and dedication.

John Lopez and **Cameron Askew**, both undergraduate computer science majors at USD, competed and placed second in the 2011 Data Mining Cup competition. The competition was open to both undergraduate and graduate students, and this year it attracted 104 teams from 83 universities and more than 20 countries. Data mining is a growing area of computer science that involves extracting and analyzing patterns from large data sets – often millions of records – by combining methods from statistics, artificial intelligence and database management. The field has many applications in business, finance, national security and other areas.

In the main phase of the six-week competition, the teams were asked to sift through millions of records from a shopping web site and find an accurate way of recommending products to a user, based on products that s/he has already examined or purchased. USD's team finished in the top 10 and was invited to a two-day conference in Leipzig, Germany, where the winners were announced in June of 2011. They will share a prize of 1500 Euros, approximately \$2,150. A team from Germany finished in first place. "I'm very proud of our students," said **Eric Jiang**, USD professor of computer science and mathematics who taught the data mining class where Lopez and Askew entered the competition as their final research project. "They put in a lot of time and effort and have a bright future ahead of them."

New hires, promotions, honors, awards, grants? Let us know!

Please send news from your institution to janet_beery@redlands.edu

Call for Nominations for Section Teaching Award

Kathryn Leonard, Section Secretary
Min-Lin Lo, Section Vice Chair

Preliminary nominations for the 21st annual MAA Southern California-Nevada Section Award for Distinguished College or University Teaching of Mathematics are now being accepted. The initial nomination consists of a one-page form (available at <http://sections.maa.org/socalnv/>) and a 1-2 page description of the candidate's qualities and teaching successes. From the initial nominees, the selection committee will choose two to three semi-finalists. Each nominator will then be asked to complete a full nomination for the semi-finalist. Upon receipt of the full nomination, semi-finalists will automatically become finalists. Each finalist will receive an official letter of commendation from the Chair of the Section, which will be copied to the candidate's department chair and dean. The selection committee will choose the winner from the pool of finalists. Finalists who are not selected will automatically have their full applications considered the following year for the Section award.

The winner of the award will be recognized at the Spring 2012 Meeting of the MAA Southern California-Nevada Section. The awardee will also be the official Section nominee for the MAA Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics. Successful nominees are individuals who are widely recognized for their extraordinarily successful teaching effectiveness and for teaching that has had influence beyond their own institutions. To be eligible, nominees must be current MAA members who teach mathematical science courses at least half-time during the academic year and have at least five years experience teaching at the college or university level. If you have an eligible and qualified colleague in your department, we urge you to nominate her/him so that s/he may be considered for the award. **Initial application deadline is Tuesday, November 1, 2011.**

Questions? Contact Kathryn Leonard at kathryn.leonard@csuci.edu