



Southern California–Nevada Section
Mathematical Association of America
NEWSLETTER



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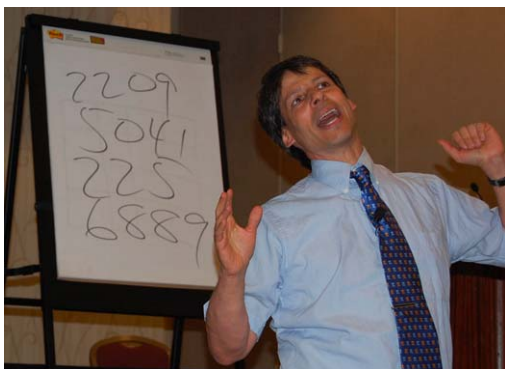
September 2009

**Southern California-Nevada Section to Meet Saturday,
October 17, 2009, at Cal State San Bernardino**

*Come join us for invited addresses on the Monty Hall Problem,
hyperbolic space, and the mathematics of swarming!*

*Art Benjamin, Harvey Mudd College
MAA Southern California-Nevada Section Chair*

Fall 2009 Meeting. You may ask, who has the time to come to a math meeting? For many of us, the school year has just begun and we are busily preparing and teaching classes. Or we are working on an interesting mathematical problem and we are trying to find the time to write up the results. So why should you go to a section meeting? Let me list a few reasons. It's an opportunity to:



*Section Chair Art Benjamin presents
the MAA Student Lecture "Secrets of
Mental Math" at MathFest in
Portland, OR, in August of 2009.*

- Hear great talks
- Give a contributed talk
- Make new friends
- Renew collaborations
- Discover new ideas
- Hear what's happening at other schools in our region
- Buy new and discounted books at the MAA book table

In This Issue of the MAA So Cal-Nev Section Newsletter:

Fall 2009 Meeting Schedule	Pages 3–4
Fall Meeting Speakers and Presenters	Pages 5–7
Call for Contributed Papers	Page 7
Fall Meeting Registration Information	Pages 8–9
The Students' Column	Pages 11–13
Bennett Wins Section Teaching Award	Page 14
Spring Meeting Featured Art & Martelli	Page 15
News from MathFest	Pages 16–17
More News of the Section	Pages 17–18

**MAA So Cal-Nevada
Section to Meet ...** is
continued on page 2:
Please see **MAA
Fall 2009 Meeting,
by Art Benjamin.**

Register online at the
Section website:
www.maa.org/socal

MAA Fall Section Meeting, by Art Benjamin, continued from page 1...

Our program committee has lined up some exciting speakers for the Fall Meeting. Andrea Bertozzi (UCLA) will speak about the mathematical biology of swarming. Jason Rosenhouse (James Madison University) is flying across the country to tell us about the Monty Hall Problem, its variations and applications. Curtis Bennett (Loyola Marymount U), our section's Distinguished Teaching Award winner, will show us a simple model for hyperbolic space. In addition, we expect lots of interesting contributed talks (perhaps given by you?), and Janet Beery (U of Redlands) and Bruce Yoshiwara (Pierce College) will hold a workshop on using the digital library resources of MathDL.

If you haven't come to a math meeting yet, the Fall Meeting is the time to do it. The food is good, and the talks and camaraderie are even better. And if you don't know anyone, just introduce yourself. It's a very friendly group. I look forward to "meeting" you there!

MAA MathFest in Portland, OR. And speaking of meetings, the MAA MathFest in Portland was a whole lot of fun. There were great talks, minicourses, exhibitors, and I enjoyed seeing lots of old friends. One of the highlights was the MAA Invited Address "Cryptography: How to Keep a Secret" by our own Alice Silverberg of UC Irvine, introduced by Ron Graham of UC San Diego. (Thanks to *MAA FOCUS* Editor Fernando Gouvea for his photos of MathFest.)



Ron Graham, UCSD, introduces speaker Alice Silverberg, UCI, at MathFest in August.

Future Meetings. Mark your calendars for the Spring Meeting, to be held at Harvey Mudd College on April 10, 2010. We have another great lineup of speakers planned for that event. And the annual Joint Meetings of MAA and AMS will be held in San Francisco January 13-16, 2010. With an expected attendance of 6000 math enthusiasts so close to us, how can you resist?

Deadlines for 2009 Fall Section Meeting at Cal State San Bernardino:

Contributed paper for Fall Meeting: Friday, October 2, 2009

Mail-in registration for Fall Meeting: Tuesday, October 13, 2009

Online registration for Fall Meeting: Tuesday, October 13, 2009, 5 p.m.
(Online registration begins Wednesday, September 16, at 8 a.m.)

Fall Meeting Schedule – see pages 3 and 4

Fall Meeting Call for Contributed Papers – see page 7

Fall Meeting Registration Information – see pages 8 and 9

Fall Meeting Schedule

Saturday, October 17, 2009

Jack Brown Hall, California State University, San Bernardino

- 8:15 – 12:00 **Registration** – Jack Brown Hall
- 8:15 – 10:30 **Refreshments** – Jack Brown Hall
- 8:30 – 2:30 **MAA Book Sale** – Jack Brown Hall
Organized by Michael Hoffman, Richard Katz, Cal State Los Angeles
- 9:00 – 10:00 **Invited Address by Jason Rosenhouse** – Jack Brown Hall
James Madison University

The Monty Hall Problem, Reconsidered

Imagine you are on a game show confronted with three identical doors. Two of them conceal goats, while one of them conceals a car. You choose one of the doors but do not open it. The host of the show now opens one of the other two doors, careful always to open one he knows to conceal a goat. He now gives you the choice of either sticking with your initial choice, or switching to the other remaining door. You then win whatever is behind your door. What decision should you make to maximize your chances of winning the car?

This is known as the Monty Hall Problem, and it is one of the most famous brainteasers in all of mathematics. Most people find the correct solution, that you double your chances by switching doors, to be deeply counter-intuitive. We will discuss the problem and numerous variants, focusing on how to think clearly about problems in conditional probability. Along the way we will show how an entire first course in probability theory can be taught using nothing but variations on the Monty Hall Problem.

- 10:00 – 10:15 **Section Business Meeting** – Jack Brown Hall
- 10:30 – noon **Contributed Paper Sessions** – Jack Brown Hall
Organized by Min-Lin Lo, Cal State San Bernardino
(See **Call for Contributed Papers**, page 7.)
- Noon – 1:30 **Luncheon** – location to be announced
- 1:30 – 2:30 **Invited Address by Curtis Bennett** – Jack Brown Hall
Loyola Marymount University

MAA 2009 Fall Meeting Schedule is continued on page 4.

MAA 2009 Fall Meeting Schedule, *continued from page 3*

1:30 – 2:30 **Invited Address by Curtis Bennett** – Jack Brown Hall
Loyola Marymount University

Understanding the Thurston Model of Hyperbolic Space

A common student model for hyperbolic space (due to Bill Thurston) can be made by gluing seven equilateral triangles together at each vertex. In this talk, we will investigate this “model” for hyperbolic space on a tour that starts with a question from *The Heart of Mathematics* and then moves from Pick’s Theorem to the Gauss-Bonnet theorem.

2:30 – 2:45 **Refreshments** – Jack Brown Hall

2:45 – 3:45 **Invited Address by Andrea Bertozzi** – Jack Brown Hall
University of California, Los Angeles

Swarming, by Nature and by Design

The cohesive movement of a biological population is a commonly observed natural phenomenon. With the advent of platforms of unmanned vehicles, such phenomena have attracted a renewed interest from the engineering community. This talk will survey the speaker's research and related work in this area ranging from aggregation models in nonlinear PDE to control algorithms and robotic testbed experiments. We conclude with a discussion of some interesting problems for the applied mathematics community.

4:00 – 5:00 **Workshop by Bruce Yoshiwara, Janet Beery, Robert Baker,
and Kirby Baker** – Jack Brown Hall
Pierce College, U of Redlands, University HS, UCLA

MAA Mathematical Sciences Digital Library (MathDL)

The National Science Foundation’s selection of the MAA as creator and custodian of the primary mathematics pathway in the National Science Digital Library (NSDL) reflected NSF’s commitment to providing tools for mathematics education at all levels as well as to promoting pioneering research in the mathematical sciences. The Mathematical Sciences Digital Library (MathDL) is the MAA’s multi-faceted response to this tremendous opportunity. This workshop is designed to show participants what MathDL has to offer them, including opportunities to contribute to existing MathDL features and departments as well as to suggest new ones. Participants will have much time for exploration of the site.

The Monty Hall Problem, Hyperbolic Space, Swarming, and MathDL to be Featured at MAA Fall Meeting Oct. 17 in San Bernardino

The Fall Meeting of the Southern California-Nevada Section of the MAA will feature three exceptional speakers on three exciting mathematical topics:

- ❖ Jason Rosenhouse, who “wrote the book” on the Monty Hall Problem, revisits the famous problem;
- ❖ Distinguished Teaching Award Winner Curtis Bennett explains Thurston’s simple yet elegant model of hyperbolic space; and
- ❖ World-renowned applied mathematician Andrea Bertozzi explains how to model the natural phenomenon of swarming.

The meeting also will feature a Contributed Paper Session, organized by Min-Lin Lo of Cal State San Bernardino (see page 7 for how to propose a paper), and a workshop on the MAA Mathematical Sciences Digital Library (MathDL), led by Bruce Yoshiwara of Pierce College, Janet Beery of the University of Redlands, Robert Baker of University High School, and Kirby Baker of UCLA. The MAA Book Sale, offered throughout the day by Michael Hoffman and Richard Katz of Cal State Los Angeles, will have a large selection of new MAA books, along with almost all of the other titles in the MAA booklist. See you at Cal State San Bernardino!

Spring Meeting Speakers and Presenters

Andrea Bertozzi is Professor of Mathematics at UCLA and currently serves as Director of the Program in Computational and Applied Mathematics. From 1995 to 2004 she was on the faculty of Duke University, most recently as Professor of Mathematics and Physics. During 1995-96 she was Maria Goeppert-Mayer Distinguished Scholar at Argonne National Laboratory. From 1991 to 1995 she was a Dickson Instructor at the University of Chicago. She received AB, MA, and PhD degrees in Mathematics from Princeton University. Her current research interests include image in painting, image segmentation, cooperative control of robotic vehicles, swarming, and fluid interfaces.



Prof. Bertozzi has been a plenary or distinguished lecturer for both SIAM and AMS and is Associate Editor for the SIAM journals *Multiscale Modeling and Simulation*, *SIAM Journal on Mathematical Analysis*, and *SIAM Review* Survey and Reviews section. She also serves on the editorial board for *Interfaces and Free Boundaries* (EMS), *Nonlinearity* (IOP), and *Applied Mathematics Research eXpress* (OUP). Her past honors include a Sloan Foundation Research Fellowship and the Presidential Career Award for Scientists and Engineers from the Office of Naval Research.

Spring Meeting Speakers and Presenters, continued from page 5...



Jason Rosenhouse received his PhD in Mathematics from Dartmouth College in 2000, and then was a post-doc at Kansas State University for three years. Currently he is Associate Professor of Mathematics at James Madison University in Harrisonburg, VA. His book, *The Monty Hall Problem: The Remarkable Story of Math's Most Contentious Brainteaser*, was published by Oxford University Press in May of 2009. He is also a professional blogger for *Seed Magazine*, focusing on issues related to science, religion, and politics. You can find his blog at <http://www.scienceblogs.com/evolutionblog>.

Curtis D. Bennett received his PhD in Mathematics from the University of Chicago in 1990 in the area of groups and geometries. Since then he has held positions at Michigan State University, The Ohio State University, and Bowling Green State University, and he is currently Professor and Chair of the Mathematics Department at Loyola Marymount University in Los Angeles. Dr. Bennett has published over 30 articles in mathematics and the scholarship of teaching and learning in mathematics. He was the co-editor of the book *Starting Our Careers* with Annalisa Crannell and was a founding editor of the Young Mathematicians Network. He has presented at two Preparing Mathematicians to Educate Teachers (PMET) workshops, and co-presented the mini-course, A Beginners Guide to the Scholarship of Teaching and Learning, at the Joint Mathematics Meetings in 2006, 2007, and 2008. In the spring of 2009, he was awarded the MAA Southern California-Nevada Section Distinguished Teaching Award.



Bruce Yoshiwara has been teaching full-time at Los Angeles Pierce College since 1989, except for a Fulbright Teacher Exchange at Barnsley College, England, in 1998-1999. He earned four degrees from UCLA: the BA, MA, CPhil, and PhD in Mathematics. He is Associate Editor of *Loci*, the online journal of the MAA Mathematical Sciences Digital Library (MathDL), and a member of the MathDL Advisory Board. He was an associate editor of the MAA *Journal of Online Mathematics and its Applications* and chair of the MAA's Committee on Technologies in Mathematics Education. He is a consultant for the MAA's Project NExT and a Consulting Colleague for AMATYC's Project ACCCESS, and serves on the board of California Mathematics Council Community Colleges-South. He was AMATYC's *Beyond Crossroads* Implementation Coordinator and a member of the writing team for UCLA's Mathematics Content Program for Teachers. He is co-author of several algebra and pre-algebra textbooks and is the only community college faculty member to have served as Content Review Panelist for California's Mathematics Primary Adoption process. Yoshiwara also was the 2008 recipient of the MAA Southern California-Nevada Section Distinguished Teaching Award.

Fall Meeting Speakers and Presenters, continued from page 6...

Janet Beery is Professor of Mathematics at the University of Redlands, where she has taught since 1989. She received the PhD in Mathematics from Dartmouth College in 1989, specializing in group theory. She is editor of the journal, *Convergence: Where Mathematics, History, and Teaching Interact*, which is part of the MAA Mathematical Sciences Digital Library (MathDL), and she is a member of the MathDL Advisory Board. Dr. Beery writes and speaks widely on the history of mathematics and especially on the mathematics of Thomas Harriot (c. 1560-1621). From 2002 to 2008, she served on the College Board AP Calculus Examination Development Committee. From 2006 to 2008, she was College Board Advisor for AP Calculus, which included commissioning and editing AP Calculus teaching resources for both online and print publication.

Robert Baker is a teacher at University High School in Los Angeles, California. He earned his degree in physics from UCLA in 1970 and is a QuarkNet lead teacher. He enjoys biking and netsurfing, especially for new ways to present mathematics and science topics. He believes that the National Science Digital Library (NSDL), of which MathDL is a part, has fantastic potential to present math and science material. He is a member of the MathDL Advisory Board.

Kirby Baker is Professor Emeritus of Mathematics at the University of California, Los Angeles. He is Faculty Advisor for the UCLA Mathematics Project, one of many sites statewide of the California Mathematics Project, which in turn is one of a number of Subject Matter Projects funded by the State of California. The UCLA program emphasizes leadership development for K-14 teachers. He is a member of the MathDL Advisory Board.

Call for Contributed Papers for the Fall 2009 Meeting

Faculty and students (undergraduate and graduate) are invited to submit short proposals for 15-minute talks in the Contributed Paper Session of the Fall Meeting. All topics will be considered. The selection of talks will be based on interest to expected audience and on scheduling constraints.

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), the desirable mathematical background of the audience, and any special presentation display needs other than an overhead projector.

Please email all submissions to Prof. Min-Lin Lo at mlo@csusb.edu

Deadline for receipt of submissions: **Friday, October 2, 2009.**

Registration for Fall Meeting

Participants can register online (using a credit card) by going to the link on the section website <http://www.maa.org/socal>. Online registration will be available from Wednesday, September 16, at 8 a.m., to **Tuesday, October 13, at 5 p.m.**

Participants also may register by mail by **Tuesday, October 13, 2009**. 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)

Whether or not you intend to participate in the workshop on the Mathematics Digital Library (MathDL) by Bruce Yoshiwara and Janet Beery (4–5 p.m.)

along with appropriate payment (see below) to:

Ernie Solheid

Department of Mathematics

California State University, Fullerton

800 N. State College Blvd.

Fullerton, CA 92834

Make checks payable to **Southern California-Nevada MAA**.

Registration and luncheon:

MAA member: \$45

Non-member: \$50

Student: \$20

Registration only (no luncheon):

MAA member: \$30

Non-member: \$35

Student: \$12

Pre-registration deadline is Tuesday, October 13, 2009 (both mail-in and online).

Online registrations must be completed by Tuesday, October 13, 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

Fall Meeting Pre-Registration / Luncheon Reservation Form

California State University, San Bernardino, Saturday, October 17, 2009

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	_____ @ \$30	_____ @ \$35	_____ @ \$12
Registration and Luncheon	_____ @ \$45	_____ @ \$50	_____ @ \$20
Registration and Vegetarian Luncheon	_____ @ \$45	_____ @ \$50	_____ @ \$20

Number attending workshop on Mathematical
Sciences Digital Library (4–5 p.m.) _____

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

Directions to California State University, San Bernardino

For directions to California State University, San Bernardino, please see
<http://www.csusb.edu/MapsDirections/>

Parking fee is \$5. The best place to park is in Parking Lot E off of Coyote Drive.

Registration, all invited addresses, all contributed papers, the workshop, and the Book Sale will be in Jack Brown Hall, with only the luncheon in a different building.

Great Books, Great Bargains at MAA Book Sale!

The 2009 Fall Meeting at Cal State San Bernardino will include the ever-popular MAA Book Sale. Book prices at the meeting will be about 10% less than the already discounted MAA member prices. Almost all of the books in the MAA Catalog will be on display, including a number of brand new titles. Among the new MAA books are *A Radical Approach to Lebesgue's Theory of Integration*, by MAA President David Bressoud; *Biscuits of Number Theory*, co-edited by MAA Southern California-Nevada Section Chair Art Benjamin; and *Uncommon Mathematical Excursions: Polynomia and Related Realms*, by former MAA Southern California Section member Dan Kalman. Book Sale organizers are Michael Hoffman and Richard Katz of California State University, Los Angeles.

Call for Nominations for Section Teaching Award

Shawn McMurran, Section Secretary

Preliminary nominations for the 18th 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://www.maa.org/socal>) 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 2010 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 Wednesday, November 4, 2009.

Questions? Contact Shawn McMurran at smcmurra@csusb.edu

The Students' Column

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

“A poster session – outdoors?!”

Here in the Southern California-Nevada Section of the MAA we think nothing of scheduling our spring Student Poster Session for an outdoor venue, much to the amazement of a judge visiting from Ohio. While a fine mist did close out the hour-long session, it did nothing to dampen the enthusiasm of the student presenters, judges, and other participants. Numbers were up slightly for the Spring '09 edition, with 26 students teaming up to present 19 posters – some accompanied by physical models or interactive computer programs. The level of accomplishment was quite high, and seven posters were determined by the judges to be exceptionally distinguished; these won Meritorious Poster Awards. (See the list at the end of this column.) As always, the poster session relied upon the efforts of many dedicated organizers, judges, and faculty mentors: all are heartily thanked. (Thanks also to Ernie Solheid for photos of the 2009 Spring Meeting!)

*Meritorious
Poster Award
winners Felix
Ortiz and
Eduardo
Calles of
Bakersfield
College
present their
project
“Bridge of
Success” at
the 2009
Spring Section
Meeting at Cal
Lutheran.*



Consider a conference

Many student members of our section of the MAA made a trip to Portland for MathFest in August. Students presented the results of their research projects and participated in or observed a variety of sessions. This year, a multitude of conferences appropriate for students are in the works. The Fall Meeting and Spring Meeting of our MAA section provide great introductions to conference-going, as each are relatively inexpensive one-day affairs, with programs guaranteed to educate and entertain. Gather a group from your school and attend! (This newsletter has all the news about the Fall Meeting; the Spring Meeting – April 10, 2010, at Harvey Mudd College – will be featured in the winter newsletter.) See the following list for other conferences to consider.

The Students' Column, continued from page 11...

- October 17, 2009: Fall Meeting of the So Cal-NV Section of the MAA, CSU San Bernardino (<http://www.maa.org/socal>)
- November 21, 2009: Southern California Conference on Undergraduate Research (SCCUR), CSU Dominguez Hills (www.sccur.org)
- January 13 - 16, 2010: The Joint Mathematics Meetings, San Francisco, CA (www.ams.org/amsmtgs/2124_intro.html)
- March 13, 2010: Pacific Coast Undergraduate Math Conference, Pepperdine University, www.pcumc-math.org
- April 10, 2010: Spring Meeting of the So Cal-NV Section of the MAA, Harvey Mudd College in Claremont (<http://www.maa.org/socal>)

Other ways to enhance your education (and your career or grad school prospects)

Meetings and seminars, extra-curricular mathematics projects, the Putnam Exam and the Mathematical Modeling Competition, summer 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, enhance your resume, 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. Online, start with <http://www.maa.org/students/reustuff/pages/REU.html> for paid summer Research Experiences for Undergraduates (REUs), <http://www.maa.org/students/career.html> for lots of career information, and <http://www.maa.org/awards/putnam.html> to learn about the Putnam Exam.



Jennifer Bonsangue of CSU Channel Islands answers questions about her poster, "Mathematics and Forgery Analysis: The Dutch Golden Age," for which she received a Meritorious Poster Award at the 2009 Spring Section Meeting at Cal Lutheran.

Student Poster Sessions: San Francisco (January) and Claremont (April)

Join 6000 mathematicians at the Joint Mathematics Meetings (JMM) ... and share your research project by participating in the national Student Poster Session. (To enter see www.maa.org/students/undergrad/jmmposterindex.html Deadline is Nov. 6, 2009.) The JMM also includes technical research presentations, survey talks, poster sessions, movie showings and musical performances, and much more. Information on all student activities will be posted in September at http://www.ams.org/amsmtgs/2110_intro.html.

The Students' Column, continued from page 12...

Your research project isn't quite ready to submit now? Enter it in the section's Student Poster Session! You're just thinking about starting something? That's fine – you have until April 5 to enter. The So Cal-NV MAA section's Spring Meeting will be held on April 10, 2010, at Harvey Mudd College in Claremont. Detailed information and abstract submission information will be in the February section newsletter. But start planning now: your poster could feature the results of any individual or group mathematics project. Need ideas? See below, and ask a professor.

- 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.

Spring 2009 Meritorious Poster Awardees

Frosh/ Soph Category

- Eduardo Calles and Felix Ortiz, *Bridge of Success*, Bakersfield College, Advisor: Rebecca Head

Junior/ Senior Category

- Jennifer Bonsangue, *Mathematics and Forgery Analysis: The Dutch Golden Age*, CSU Channel Islands. Advisor: Ivona Grzegorzczuk
- Sonia Chauhan, *Bipartite at its Best!!!*, Cal Poly Pomona. Advisor: Berit Givens
- Benjamin Fogelson, *Survival and proliferation of chronic lymphocytic leukemia in lymphoid tissue*, Harvey Mudd College. Advisor: Lisette dePillis
- Aileen Gaudinez, Lisa Brown, Michelle Creek, *Derivatives and Gradients as Tools in Digital Image Processing*, Chapman University. Advisor: Mohamed Allali
- Kristina Klug, *Rank Analysis of NASCAR*, California Lutheran University. Advisor: Chris Brown
- Sarah Lauff, *Institutional Research – Freshmen Retention and Cafeteria Patterns*, Point Loma Nazarene University. Advisors: Greg Crow and Maria Zack
- Alana Nichol, *PLNU Student Entry, Exit, and Reentry Points*, Point Loma Nazarene University. Advisors: Maria Zack and Greg Crow

Masters Category

- Brian Chen and Hernan Oscoco, *Angle Constructability on Lattices: Why a dog and cat lattice can make the same angles*, Cal Poly Pomona. Advisor: Greisy Winiki-Landman



Student Poster Session Organizer Cindy Wyels announces the award winners at the Spring 2009 MAA Section Meeting at Cal Lutheran.

Curtis Bennett of LMU Wins Section Teaching Award

*Art Benjamin, Harvey Mudd College
MAA Southern California-Nevada Section Chair and
2009 Distinguished Teaching Award Committee Chair*

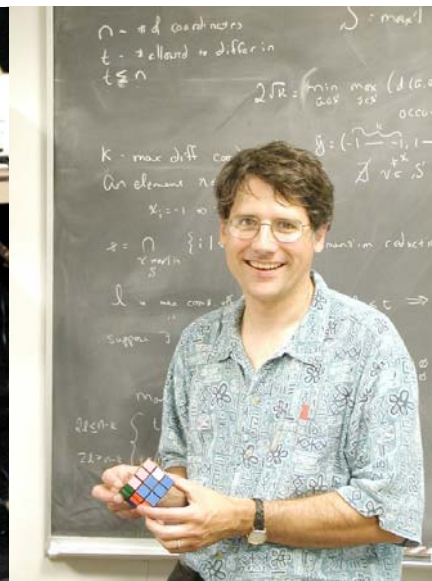
The Southern California-Nevada Section of the MAA is pleased to announce that Professor Curtis Bennett of Loyola Marymount University has received its 2009 Distinguished Teaching Award. Dr. Bennett's students describe him as energetic and enthusiastic, passionate, selfless, sincere, and patient. They often credit him not just for increased mathematical skills, but also for increased self-confidence. His reputation as an excellent teacher extends well beyond the boundaries of LMU. He has gained national and international prominence as a two-time Carnegie Scholar, has led PMET Workshops (Preparing Mathematicians to Educate Teachers), and has run several mini-courses on the scholarship of teaching and learning in mathematics.



At right, Curtis Bennett displays the 2009 MAA Southern California-Nevada Section Distinguished Teaching Award at the Spring 2009 Section Meeting at California Lutheran University (photo by Ernie Solheid, CSU Fullerton).

Below left, Section Chair Michael Frantz presents Bennett with the award.

Below right, Bennett prepares for a presentation on the mathematics of Rubik's Cube.



**Want to nominate a colleague for the Section Distinguished Teaching Award?
See page 10 for instructions!**

Spring 2009 Meeting Featured a Salute to Mario Martelli

If we could use just one word to describe the Spring Meeting of the MAA Southern California-Nevada Section March 21, 2009, at California Lutheran University, it would be mARTelli. The meeting featured a presentation by internationally renowned origami artist and mathematician Robert Lang; talks by our own Mario Martelli and by his former student, Annalisa Crannell, on the geometry of art; a student poster session, an event long championed by Martelli at both local and national meetings; and a tribute to Martelli for his excellent and exemplary service to the MAA Southern California-Nevada Section, the national MAA, and the three Southern California institutions he has served during his career, Cal State Fullerton, Claremont-McKenna College, and Claremont Graduate University. Section Governor Ken Millett “unveiled” onscreen the brick the section has dedicated to Martelli in the MAA Carriage House River of Bricks in Washington, DC, and meeting participants donned red, green, and white “Italians make better professors, eh?” T-shirts.

Above right, Annalisa Crannell delivers “Math and Art: The Good, the Bad, and the Pretty.”

At right, Mario Martelli explains “Chaos in the Solar System.”

Photos by Ernie Solheid, Cal State Fullerton



Next time you are in Washington, DC, be sure to visit the River of Bricks at the MAA Carriage House! Photo by Michael Frantz, University of La Verne

For more photos of the 2009 Spring Section Meeting, please see http://web.me.com/esolheid/MAA_Southern_California-Nevada_Spring_2009_Meeting/

CSU Fullerton Prof Wins Alder Award at 2009 MathFest

Scott Annin of Cal State Fullerton won the prestigious Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member at the MAA MathFest August 6–8, 2009, in Portland, Oregon. Meanwhile, other members of the MAA Southern California-Nevada Section were busy making presentations, leading sessions, and enjoying people and place at MathFest.

Annin has taught at CSU Fullerton since 2002, the same year he earned the PhD in Mathematics from UC Berkeley, and has received numerous teaching awards at both Berkeley and Fullerton. According to *MAA Online*, he received the MAA Alder Award for “his passion for teaching mathematics and his inspiration of students to major in mathematics.”

Alice Silverberg, UC Irvine, at right, gave an MAA Invited Address on “Cryptography: How to Keep a Secret,” and **Kate Okikiolu**, UC San Diego, delivered the AWM-MAA Etta Z. Falconer Lecture on “The Sum of Squares of Wavelengths of a Closed Surface.” **Art Benjamin**, of Harvey Mudd College, presented “Secrets of Mental Math” as the MAA Undergraduate Student Activity.



Jackie Dewar, Loyola Marymount University; **Michael Orrison**, Harvey Mudd College; and Benjamin led the minicourses, “A Beginner’s Guide to the Scholarship of Teaching and Learning Mathematics,” “Preparing Students to Communicate Mathematics,” and “Combinatorially Thinking,” respectively.



Stacy Langton of University of San Diego, Silvia Heubach of Cal State LA, and Jenny Quinn of University of Washington, Tacoma, and formerly of Occidental College, enjoy the MathFest Opening Banquet in Portland, OR, in August. Photos by MAA FOCUS Editor Fernando Gouvea

Janet Beery, University of Redlands; Benjamin; and **Mario Martelli**, Claremont Graduate University, organized Invited Paper sessions on, respectively, History of Mathematics, Gems of Combinatorics, and Research with Undergraduates. Beery and **Stacy Langton**, University of San Diego, spoke in Beery’s session. **Ali Nadim**, Claremont Graduate University; **Cindy Wyels**, Cal State Channel Islands; and **Ami Radunskaya**, Pomona College, spoke in Martelli’s session. **Ken Millett**, UC Santa Barbara; **David Bachman**, Pitzer College; and **Thomas Ferguson**, UCLA, spoke in other Invited Paper sessions.

News from 2009 MAA MathFest, continued from page 16...

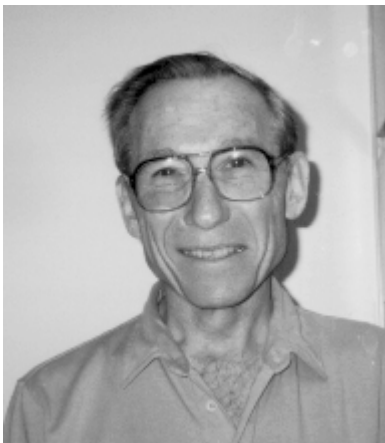
Todd Cadwallader, Cal State Fullerton, helped organize a Contributed Paper Session on Fascinating Examples from Combinatorics, Number Theory, and Discrete Mathematics, and Beery helped organize a CPS on History and Philosophy of Mathematics and Their Uses in the Classroom. Several MAA So Cal-Nev Section members presented talks in these and other CPSs.

Meeting attendees also found time to walk along the Willamette River, explore Portland's famous rose gardens, and taste the local seafood and other specialties. MathFest 2010 will be held in Pittsburgh, Pennsylvania, August 5-7.

More News of the Section

The **CSU Channel Islands** Mathematics Program welcomes two additional faculty members: **Brooke Ernest**, most recently of Modesto Junior College, and **Delil Martinez**, whose previous position was at the Universidad Autonoma del Estado de Hidalgo. **Jorge Garcia** and **Jesse Elliott** have been awarded tenure and promoted to Associate Professor.

Ivona Grzegorzcyk of CSU Channel Islands, in partnership with Honde Hu (CSU Monterey Bay) and Dale Oliver and Jeff White (CSU Humboldt), has been awarded a \$899,670 Noyce grant from the NSF to increase the number of students interested in mathematics and mathematics education. The grant will provide funds for several scholarships for Noyce fellows, as well as for research and conference participation, educational network building among the three campuses, collaboration, visits and seminars.



Harvey Mudd College congratulates Professor **Darryl Yong** for his promotion to Associate Professor with tenure. Congratulations also to Professors **Dagan Karp** and **Talithia Williams** for surviving their first year as Assistant Professors of Mathematics. Dr. Karp earned his PhD from University of British Columbia, and is interested in Algebraic Geometry. Dr. Williams earned her PhD from Rice University and is interested in Statistics. We welcome Dr. **Ursula Whitcher**, who begins a 2-year postdoc at HMC, after finishing her PhD from University of Washington.

Professor Emeritus **Alvin White** (above) of Harvey Mudd College passed away on June 2, 2009. A program honoring his life will be held at HMC on September 23, 2009. For more information about the program, please see <http://www.math.hmc.edu/alvin-white-memorial/> For information about White's career, please see <http://www.hmc.edu/newsandevents/white062309.html>

More News of the Section, continued from page 17...

Loyola Marymount University welcomes two visiting assistant professors this year, **Emek Köse Can** and **Natalie Rivetti-Ortiz**. Emek Köse Can received her B.S. in Mathematics from Middle East Technical University, Turkey, and her M.S. and Ph.D. in Mathematics from Drexel University. Her research area is Image Science with a focus on catadioptric sensors. Natalie Rivetti-Ortiz received her B.A. in mathematics and her M.A. in education from LMU.

Blake Mellor of LMU, **Erica Flapan** (of **Pomona College**), and **Ramin Naimi** (of **Occidental College**) received a 3-year NSF grant for their work on topological symmetries and intrinsic properties of graphs embedded in 3-space. **Alissa Crans** of LMU received a 2-year NSA grant for her work on categorified 2-quandles. **Herbert Medina** is the principal investigator for the Descartes Scholars program NSF grant at LMU, a grant that gives scholarships and other support to undergraduate students from underrepresented groups in math and science. **Thomas Zachariah** won the first annual LMU Seaver College Rudinica Teaching and Advising Award. In addition, **Jackie Dewar**, **Suzanne Larson**, and Zachariah were named national SENCER (Science Education for New Civic Engagement and Responsibilities) teaching fellows.

The **University of Redlands** welcomes Assistant Professor of Mathematics **Joanna Bieri**, who completed her PhD in Applied Mathematics at Northwestern University, and Lecturer **Wendy Peske**, a University of Redlands (BS) and Cal State San Bernardino (MS) mathematics graduate who last taught at Redlands High School.

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

Save these dates for future MAA national meetings!

Winter 2010	San Francisco, CA	January 13-16
Summer 2010	Pittsburgh, PA	August 5-7
Winter 2011	New Orleans, LA	January 5-8
Summer 2011	Lexington, KY	August 4-6
Winter 2012	Boston, MA	January 4-7
Summer 2012	Madison, WI	August 2-4
Winter 2013	San Diego, CA	January 9-12
Winter 2014	Baltimore, MD	January 15-18
Winter 2015	San Antonio, TX	January 9-12
Summer 2015	Washington, DC	August 5-8
Winter 2016	Seattle, WA	January 6-9
Winter 2017	Atlanta, GA	January 4-7