FALL 2004
NEWSLETTER

2004 - 2005 Section Officers and Committee Members

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Don Teets of South Dakota School of Mines and Technology Named 2004 Distinguished Teacher

In 1991, the MAA Board of Governors established Section Awards for Distinguished College or University Teaching to recognize excellence in mathematics teaching at the post-secondary level. The Rocky Mountain Section Award is named in honor of Burton W. Jones, a lifelong advocate of excellence in teaching and supporter of the members and programs of the MAA. In addition to receiving a certificate and a check, award recipients deliver the opening address at the following year's spring meeting and become the Section Nominee for the Deborah and Franklin Haimo Awards for Distinguished College or University Teaching of Mathematics.

Criteria for the award require far more than effective teaching. Awardees are expected to be outstanding teachers, widely recognized both within and beyond their institution for extraordinary success in teaching mathematics. Professor Donald Teets of the South Dakota School of Mines and Technology (SDSM&T) easily exceeds each of the high standards set for the award. His efforts in teaching, leading undergraduate research projects, curriculum development, service, and research exemplify excellence, and he consistently demonstrates wisdom and leadership.

He is well-respected by students and colleagues as evidenced by representative student comments like:

> "Dr. Teets' availability and willingness to give outside classroom assistance is definitely a plus …",
>
> "I liked the positive attitude of the instructor.",
>
> "I liked the way you give interesting examples.",
>
> "Outstanding teacher. Combined humor + history into the course. Additionally, he was always available + had incredible patience."

and colleague comments like:

> "The secret of his success lies in his enjoyment of his students, his meticulous preparation, and his excitement about mathematics." and
>
> "… it has been his influence that has led to a significant percentage of (SDSM&T) mathematics majors to go on to graduate studies.".

He was awarded the SDSM&T Benard Ennenga Faculty Award in 2003 for his exceptional abilities to educate and inspire students. He is an ardent member of MAA and a familiar presence at national and section meetings.

He has taught a wide variety of courses including mathematics courses ranging from Precalculus to Complex Analysis and mathematics study courses in Dynamical Systems, Chaotic Dynamics, and Orbital Mechanics. In the spring of 2003, Dr. Teets published one of the Orbital Mechanics class projects that he had converted to a UMAP module. A course he once offered in Dynamical Systems drew not only a healthy enrollment of undergraduates, but also half a dozen SDSM&T faculty members who faithfully attended. When he taught a course in Celestial Mechanics, students used "live" data from the NASA website in their homework. No less than twenty students have conducted undergraduate research projects under his tutelage on topics ranging from fractals and fractional calculus to applications dealing with chemical reactions and orbital mechanics.

Dr. Teets advocated and supported the expansion of the SDSM&T undergraduate research component from one semester to two semesters, a change that focused on improving the quality of students' mathematical communication in their final reports. The SDSM&T Industrial Advisory Board was very enthusiastic about the stronger emphasis on developing the communication skills of graduates resulting from this effort.

He was SDSM&T Department Chair from 1997 to 2000. He was a founding member of and served on the Mathematics Discipline Council formed by the South Dakota Board of Regents in 1999 from 1999-2004 including service as Chair from 2003-2004. He has established relations with South Dakota high school mathematics teachers and advises them regularly on mathematics preparation for higher education studies.

He has an impressive publication list and has presented at regional and national conferences including invited lectures. An article he co-authored with Dr. Karen Whitehead titled

"The discovery of Ceres: How Gauss became famous" earned him the Carl B. Allendoerfer Award for expository excellence from the Mathematical Association of America, awarded in August of 2000 in California. Recently, he published a paper entitled "Transits of Venus and the Astronomical Unit" where he explains how data on the relative positions of the Earth, Venus and the Sun can be used to determine the distance from the earth to the sun with mathematics accessible to Calculus III and Linear Algebra students.

It is an honor to recognize Dr. Donald Teets' contributions to mathematics education with the 2004 Burton W. Jones Distinguished Teaching Award. Congratulations, Dr. Teets and good luck in the competition for the Deborah and Franklin Haimo Awards for Distinguished College or University Teaching of Mathematics!

Jeff Berg, Arapahoe Community College

Past Burton W. Jones DTA Recipients

1992 Professor John H. “Jack” Hodges, University of Colorado, Boulder
1993 Professor Gerald Diaz, United States Air Force Academy
1994 Professor A. Duane Porter, University of Wyoming
1995 Professor William D. Emerson, Metropolitan State College of Denver
1996 Professor Zenas Hartvigson, University of Colorado at Denver
1997 Professor Thomas Kelley, Metropolitan State College of Denver
1998 Professor Monte Zerger, Adams State College
1999 Professor Bill Briggs, University of Colorado at Denver
2000 Professor Barbara Bath, Colorado School of Mines
2001 Professor Jim Loats, Metropolitan State College of Denver
2002 Professor Gene Abrams, University of Colorado at Colorado Springs
2003 Professor Hugh King, Colorado School of Mines
2004 Professor Don Teets, South Dakota School of Mines and Technology

Section Students Recognized for Mathematics Excellence

On May 20, 2004, the Ninth Annual Colorado Mathematics Awards Ceremony was held at the Grant-Humphreys Mansion in Denver. Organized by **Dick Gibbs**, Emeritus Professor at Fort Lewis College, and **David Carlson**, President of Resource Analysis, Inc., the event recognized 55 Colorado students and 28 teachers for outstanding performances on seven national mathematics competitions: MATHCOUNTS, the American Mathematics Contests 8, 10 and 12, the High School Mathematical Contest in Modeling, the William Lowell Putnam Mathematical Competition, and the Mathematical Contest in Modeling. The AMC 8, AMC 10, AMC 12, and Putnam Competitions are sponsored programs of the national MAA, which also provides support for the other three competitions. The Rocky Mountain Section is an educational sponsor of the Colorado Mathematics Awards Ceremony.

Other MAA members on the Awards Steering Committee include **David Larue** (Mines) and **Lou Talman** (Metro). Special thanks to David for his AMC 10, 12 website: http://www.mines.edu/amc/. Pictures (many of them!) of this year’s CMA can be found there.

The American Mathematics Contests 10 and 12 awards were presented by **David Larue**, the Mathematical Contest in Modeling awards were presented by section Governor **Hortensia Soto-Johnson** (CSU-P), and the William Lowell Putnam Mathematical Competition awards were presented by section Chair **Rob Tubbs** (UC-B).

This year *two* teams from University of Colorado-Boulder excelled in the Mathematical Contest in Modeling. Team members were **Brian Camley, Pascal Getreuer,** and **Bradley Klingenberg,** coached by Prof. **Anne Dougherty**, and **Moorea Brega, Alejandro Cantarero,** and **Corry Lee,** coached by Prof. **Bengt Fornberg**. Both of these teams received the **Outstanding** designation for their solutions. ‘Outstanding’ is the highest award level possible, reserved for those papers which provide excellent analysis, thoughtful insights and exceptionally clear exposition. Only 7 of 599 teams worldwide achieved it in 2004!

The University of Colorado-Boulder, Colorado State University, and the University of

Northern Colorado shared Putnam Competition honors. Individual top Putnam scorers were **Adam Henderson** and **Nicholas Hall**, University of Colorado - Boulder, **Manfred Georg** and **Felipe Ramierez,** Colorado State University, and **Deanna Turk,** University of Northern Colorado. Colorado State University had the top Putnam team, comprised of **Manfred Georg, Travis King,** and **Felipe Ramierez**. The coach was Prof. **Alexander Huelpke**.

In addition to supporting the Colorado Mathematics Awards Ceremony, the Section also recognizes top section scorers on two exams. This year, the Rocky Mountain **Section Putnam Exam Top Score** belongs to **Adam Henderson**, University of Colorado-Boulder. **Andy Scacco**, a sophomore at Smoky Hill High School in Aurora, achieved the Rocky Mountain Section AMC 12 Top Score. Congratulations, Adam and Andy!

Although he was unable to attend, Prof. **Don Teets** (SDSMT), recipient of this year's Rocky Mountain Section Burton W. Jones Distinguished Teaching Award, was recognized by Governor **Hortensia Soto-Johnson**.

Special thanks to the CMA Steering Committee for identifying and recognizing these outstanding young mathematicians.

Dick Gibbs, Fort Lewis College

Governor's Report

Mathfest 2004 in Providence, Rhode Island was extremely successful. There were several excellent presentations. It was exciting to listen to Alan Schoenfeld discuss his experiences working in the public schools. Alan discussed the challenges, importance, and rewards of collegiate faculty members working with public school teachers.

Below are a few highlights from the Board of Governor's meeting.

1. Two new publications, *The CUPM Curriculum Foundation Project* and *The CUPM Curriculum Guide* are in print and are excellent additions for every Mathematics Department Library.
2. It appears that MAA will receive NSF funding to strengthen the MathDL and to create a suite of resources on-line. The proposal, *Math Gateway Project*, calls for: an expanded MAA Reviews site to replace Telegraphic Reviews; a searchable online Basic Library List; an online version of many of the Classroom Capsules that have been published by the MAA; a CUPM Illustrative Resources site in support of the CUPM guidelines; and the building of a new portal designed for undergraduate web-based materials in mathematics. This is a 2 million project that will extend over four years.
3. The 2nd annual Mathematical Study Tour held in England was once again successful. Start practicing your Spanish, because next year's study tour will be to the ancient Mayans in Yucatan and Chiapas, Mexico.
4. I know that many of you will be pleased to know that there will be daycare available at the joint meeting in Atlanta. More information can be found at the MAA website.

I look forward to seeing you in Atlanta for the joint meeting and in Greeley for our section meeting.

Respectfully Submitted:

Hortensia Soto-Johnson, Governor

Section News

Arapahoe Community College

Norman Lemay has joined our department on a one-year temporary full-time contract. Norman earned both a M.S. degree in Mathematics and a B.S. Degree in Mathematics with a Minor in Philosophy from the University of Colorado at Denver. He also brings seven years of teaching experience at Metropolitan State College of Denver and the University of Colorado at Denver and five years of teaching experience at the community college level.

Erica Johnson and **Tracy Lawrence** presented a talk entitled "Incorporating ILAPS in the Classroom" at an MAA contributed paper session with the theme, Mathematical Modeling Modules and Materials organized by **Kyle L. Riley**, South Dakota School of Mines and Technology and **Laurie Heyer**, Davidson College at MathFest in Providence in August, 2004. ILAPs or Interdisciplinary Lively Applications Projects are part of the Foundations in Engineering, Science and Technology (FEST)

collaborative effort between faculty at the University of Colorado at Denver, Red Rocks Community College and Arapahoe Community College funded by the Colorado Institute of Technology.

After several years as Dean of Health, Mathematics, Science and Engineering a former member of our department, **Patrick Enright**, has accepted the responsibilities of Interim Vice President of Instruction at Arapahoe Community College. Our department feels fortunate to have Patrick's knowledge and experience of issues facing our discipline at the vice-presidential level.

Colorado College

We have a new addition to our faculty this year. **Luis Melara** joins us fresh from the National Institute of Standards and Technology. Luis is an applied mathematician who completed his Ph.D. at Rice after undergraduate work at UCLA. He, along with **David Brown** who joined us last year with an interest in biology, will be steadily adding to the applied offerings in our department.

We are sorry to report that **Kathy Merrill** has decided to retire. We will miss her never-diminishing interest in mathematics. She will still be doing mathematical research, but at a more leisurely pace from her home near Mancos, Colorado. The department will search for a replacement next year as if we could actually replace her.

Fred Tinsley can be occasionally seen around the department, but he is on sabbatical this semester. He'll rejoin the festivities in January. **Jonathan Bredin** cannot be seen at all around the department these days since he is in Boston visiting the Artificial Intelligence lab at MIT. Later he will be collaborating with a colleague at Harvard. Jonathan is on leave until January.

Josh Laison returns along with **Wojciech Kosek** who taught a few blocks last year for us, but is now full-time. **Travis Kowalski** accepted a tenure-track position at the South Dakota School of Mines and his lively teaching and colorful shirts will be missed.

Finally, and most importantly, **Felissa Jacobson-Sadacca** is our new paraprofessional. She graduated last year and we are delighted she agreed to spend one more year with us. You can see the rest of us here as usual, **Jane McDougall, Marlow Anderson, John Watkins, Steven Janke,** and **Mike Siddoway**. Steven Janke will again be chair of the department.

Colorado State University - Pueblo

Jim Louisell was awarded the University Excellence Award for Scholarship in Spring 2004. Two mathematics faculty were also recognized within the College of Science and Mathematics: **Bruce Lundberg** with the College Outstanding Faculty Award, and **Tensia Soto-Johnson** with the College Excellence Award for Service.

The department was saddened by the departure of **John McArthur** and **Karla Oty** from Colorado this past summer; John is currently serving as Dean of the College of Science and Technology at Cameron State University in Lawson, Oklahoma, where Karla is a member of the mathematics faculty. We miss them, but wish them well!

Our Mathematics Learning Center Coordinator **Tammy Watkins** is currently on leave, expecting the arrival of her second child shortly. In her absence, **Paul Chacon** is overseeing our placement program, while **Janet Nichols** coordinates operations of the Mathematics Learning Center and the College Algebra Group Learning Program. This is the first semester in which the Group Learning Program for College Algebra is mandatory for all students enrolled in that course.

Metropolitan State College of Denver

In 03-04, **David Ruch** was awarded tenure and promoted to full professor, **Patty McKenna** was awarded tenure and **Don Gilmore** was promoted to Associate Professor.

Charlotte Murphy, chair from 1992-2004, retired. She joined the Metro faculty in 1977. Charlotte gained an extensive reputation as an outstanding leader with high standards and expectations. She was a tireless and powerful advocate for maintaining high academic standards across the college. She will be greatly missed.

University of Colorado at Boulder

Last spring, Prof. **Richard Holley** retired. This fall, we have a new faculty member, **Brian Rider**, whose fields are probability and math-physics.

Longtime MAA Members Honored

Each spring, the section recognizes some of our longtime active MAA members. At the 2004 Section Meeting Banquet, we were delighted to recognize four individuals for achieving fifty year of membership in the MAA: **Erwin Deal** of Fort Collins, **John "Jack" Hodges** and **William J. Hartman** both of Boulder, and **Byron L McAllister** of Bozeman, Montana. **James Hagler** of the University of Denver was also recognized for his twenty-five years of membership. All five individuals received a certificate honoring their long-term commitment to the mission of the MAA. Congratulations, and thanks to you all for service to and support of the association!

Is news from your school missing?

Send your news to your department liaison now with a request to forward it to the Newsletter Editor for inclusion in the next issue.

Front Range Undergraduate Mathematics Conference Colorado School of Mines Saturday, October 30, 2004

The Department of Mathematical and Computer Sciences at the Colorado School of Mines will host the first annual Front Range Undergraduate Mathematical Sciences Conference on **Saturday October 30, 2004**, on the Colorado School of Mines campus. The focus of the conference is on the dissemination of results of undergraduate research projects and on graduate school opportunities across the Front Range mathematical sciences community. This one-day event will include paper presentation and poster sessions, and question and answer opportunities with both graduate students and faculty from Front Range universities. **For program information and details of the paper submission process**, please contact front-rangeUC@mines.edu or visit www.mines.edu/academic/macs/frontrangeUC**.**

The conference is funded by the Mathematical Association of America, National Science Foundation-Regional Undergraduates Mathematics Program (NSF Grant DMS-0241090) and the Colorado School of Mines Graduate School.

Scott Strong, Colorado School of Mines

2nd Annual Pikes Peak Regional Undergraduate Mathematics Conference at Colorado College Saturday, February 26, 2005

Funding from the MAA Undergraduate Mathematics Conferences will help provide support for the second annual Pikes Peak Regional Undergraduate Mathematics Conference (PPRUMC). It will be held February 26, 2005 in Colorado Springs at Colorado College. PPRUMC is a one-day mathematics conference that will be held each spring in one of four institutions in the Pikes Peak region of Colorado. The host institutions include: Colorado College (CC), Colorado State University-Pueblo (CSU-Pueblo), University of Colorado at Colorado Springs (UCCS), and the United States Air Force Academy (USAFA).

The focus of the conference is to give undergraduate mathematics students the opportunity to present their own classroom, independent study, research, or REU projects in a professional setting. This is also an occasion for students to become acquainted with other students, to become aware of undergraduate opportunities in mathematics and to investigate the possibility of graduate school.

Faculty, please encourage your students to present at the second Pikes Peak Undergraduate Research Mathematics Conference. Below is the anticipated schedule.

9:00 - 9:15	Registration
9:15 - 9:30	Welcome & Opening Remarks
9:30 - 10:20	Keynote Speaker
10:30 -11:50	Parallel Sessions (each session will be 15 minutes with 5 min in between sessions)
12:00 -1:00	Lunch (Free to presenters)
1:00 - 2:00	Panel - Careers in Mathematics *"Mathematics -- You're Hired"*
2:00 - 4:30	Parallel Sessions (each session will be 15 minutes with 5 min in between sessions)
4:30	Closing Remarks
5:30	Optional pizza & ice cream party at a local establishment

Travel funds are available for students traveling longer distances. For more information about travel funds or the conference contact John Watkins at jwatkins@coloradocollege.edu. Funding through MAA NSF – RUMC (NSF Grant DMS – 0241090)

John Watkins, Colorado College

COLOMATYC Conference

COLOMATYC (The Colorado Mathematical Association of Two-Year Colleges) will hold a conference on Friday, March 4, 2005 at Red Rocks Community College. Please contact Rick Reeves at Rick.Reeves@rrcc.edu (303-916-6400) for more information.

Nominees Sought

Distinguished Teaching Nominations

Each year, the section recognizes one outstanding teacher of collegiate mathematics with an award named in honor of Burton W. Jones, a life long advocate of excellence in teaching at all levels. In addition to a $50 honorarium, the recipient receives a certificate and an invitation to deliver the opening lecture at the next Section Meeting. The section recipient also becomes the section's nominee for the Deborah and Franklin Haimo Awards for Distinguished College or University Teaching of Mathematics. These national awardees (at most three) are honored at the MAA winter meeting with a certificate and $1000 check.

To begin the nomination process, nominators simply submit the **one-page nomination form** (available on the section website) by **1 December 2004**. **Complete nomination materials** should then reach the section secretary by **29 January 2005**. These materials are limited to a narrative description of nominee's credentials (not to exceed five pages), no more than three additional pages of evidence to document the nominee's teaching success, and as many as five letters of recommendation. All nominators will receive a certificate of appreciation from the section in recognition of their efforts to support the section mission of promoting excellence in teaching; nominators and nominees will also receive free meeting registration at the next section meeting.

Any section member may nominate any other section member, including those who teach at another institution. Nominees should be widely recognized as extraordinarily successful at the post-secondary level, have documented teaching effectiveness, where "teaching" is interpreted in its broadest sense, have had influence in their teaching beyond their institution, and be recognized for their ability to foster curiosity and generate excitement about mathematics in their students. A nominee must also be assigned at least half time to the teaching of mathematics in a U.S. or Canadian college or university, and have at least five years teaching experience. We know there are many extraordinary teachers within our section who deserve the honor of being nominated for this award --- nominate one today!!

Section Governor Nominations Sought

With the approaching end of Tensia Soto-Johnson's term of office as section governor, planning for the election of her successor has begun. As demonstrated by Tensia's excellent example since 2002, the section governor plays a key role in assuring liaison between the national organization and the Section, and assumes a vital leadership role with respect to implementation from the Board of Governors recommendations within the Section. Through participation in meetings of the Board of Governors of the Association, governors gain good insight into the internal workings of the MAA, which provides some travel support for attendance at both Math fest and the winter joint meetings. The Rocky Mountain Section Governor also appoints (in consultation with CCTM) the Higher Education Representative to CCTM Governing Board, and serves on the section's Program Committee.

The section nominating committee is now accepting nominees for the position of 2005–2008 Section Governor. The individual elected to this position will serve as our representative on the national Board of Governors for a three-year term beginning July 1, 2005. Per the Association By-laws, the election will then be conducted by the Executive Director of the Association via a mail vote. Ballots will be mailed to all members in early February 2005, due back to national by 15 March 2005.

To make a nomination, please contact the Nominating Committee Chair Tracii Friedman (tfriedma@mesastate.edu, 970-248-1667) no later than November 3, 2004.

More Positions on Executive Committee To Be Filled

Nominees are now being sought for the position of 2005-2007 **Section Vice Chair**. This position on the Executive Committee is reserved for a faculty member from a junior or community college within the Rocky Mountain Section. In addition to acting as a contact between the Executive Committee and the two-year\community colleges within the section, duties of the Vice Chair include serving as a member on the Program Committee, the Awards Selection Committee, and the Committee on Professional Linkages.

Nominees are also sought for the position of 2005-2008 **Secretary/Treasurer.** In addition to responsibility for section archives and finances, this individual serves on the Program Committee, prepares annual reports and minutes of all Section and Executive Committee meetings, assists other officers in the performance of their duties, and handles details not assigned to other officers.

Both elections will take place at the 2005 Spring Section Meeting in Greeley. For information about the responsibilities of either position, please contact the Section Secretary Janet Barnett (janet.barnett@colostate-pueblo.edu, 719-549-2540).

To make a nomination, please contact the Nominating Committee Chair Tracii Friedman (tfriedma@mesastate.edu, 970-248-1667). The deadline for these nominations is February 25, 2005.

1st Annual Pikes Peak Regional Undergraduate Mathematics Conference Report

Conference Description

The 1st annual Pikes Peak Regional Undergraduate Mathematics Research Conference (PPRUMRC), funded by MAA NSF Grant DMS-0241090 was held on February 28, 2004 at Colorado State University-Pueblo. With the beautiful front range of the Rocky Mountains as a backdrop and an attendance of 76 people from 12 different institutions, the conference was declared extremely successful. The one-day program included a keynote speech, 18 student research presentations and a panel presentation on experiences about graduate school in mathematics.

The conference commenced with a keynote address given by Professor Rob Tubbs from the University of Colorado. His presentation was entitled *"Presidential Doodles and Geometric Perfections."* Dr. Tubbs made connections between regular 3-D polyhedra and 2-D graphs. Dr. Tubb's presentation was lively, entertaining and accessible to the undergraduate students. One student commented, *"…he had a neat presentation that I understood. He kept me engaged during the entire speech."*

Two parallel sessions of student presentations ran in the morning and afternoon. There were a variety of student research topics, including history of mathematics, knot theory, geometry, and applied math. The student presenters are enrolled at the following higher education institutions: Arapahoe Community College, Colorado College, Colorado State University-Pueblo, United States Air Force Academy, University of Colorado – Colorado Springs and Western State College. The breadth of the presentations was impressive, as was the backgrounds and diversity of the presenters. One person made the following comment: *"I really liked how the speakers were peers. The speakers I heard were very descriptive. Just amazed what these students researched and presented."*

The panel *"Planting the Graduate School Seed"* was by far the most popular component of the conference. The mathematics graduate students who served on the panel were RaKissa Cribari (University of Northern Colorado), Trent Kull (Colorado State University), Sheila Miller (University of Colorado), and Leslie Varys (University of Colorado at Denver). The panelists shared their personal stories of why they chose to attend graduate school, their experiences so far, and how well they felt their undergraduate education prepared them. Their personal stories of life as a graduate student provided a rare glimpse at the true rewards and struggles that go into pursuing a degree in higher mathematics. In addition, they discussed graduate school opportunities, the choice of an advisor, plans after graduate school, and other general advice for prospective mathematics

graduate students. Several students commented how much they enjoyed the panel. One such comment was *"…it was enlightening to hear from students who are actually doing what graduate students do as well as 'tips and tricks' to know beforehand."*

Conference Participants

A total of 76 people attended the conference. The break down was as follows: 18 presenters, 34 student spectators, 20 faculty and 4 graduate students. Table 1 shown below illustrates the total number of people who attended by gender, school, presenters, spectators, graduate students and faculty. The percentage breakdown for each group was presenters 24%, spectators 45%, faculty 26%, and graduate students 5%. The breakdown by gender was 63% male and 37% female.

Questionnaire and Survey Results

A questionnaire was available for all participants to complete, which not everyone completed. In fact only 57% of the participants answered the questionnaire. The questionnaire had questions related to ethnicity, grade level, membership to organizations, major and minor, and intent to pursue graduate school. The questionnaire also contained questions regarding participation in past and future conferences.

Based on the completed questionnaires 90.7% of the participants were Caucasian, 2.3% were Asian and 7% were Hispanic. Also based on the completed questionnaires 7% of the students were freshman, 18.6% were sophomores, 23.3% were juniors and 30.2% were seniors. Approximately 72% of the students were math majors. Many of the students were double majors in areas such as art, biology, business, computer science, physics, and engineering. Several students also had minors in areas such as accounting, art, business, chemistry, or education. Approximately 42% of the students were members of a math club and 23% were members of the MAA. Of the people who completed the questionnaire 47% said they planned on attending graduate school.

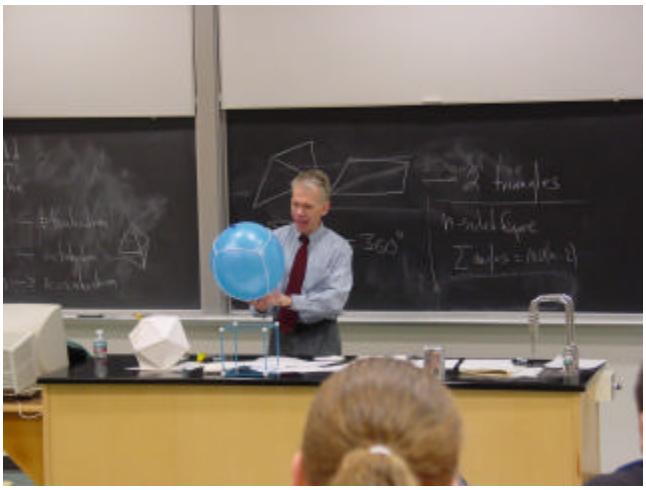
Overall the participants were very positive towards the organization of the conference and a majority of the students were interested in attending or presenting at future conferences. One hundred percent of the respondents felt the conference was well organized and 80% said they would be willing to present at future conferences.

Future Conferences

The success of the 1st annual PPRUMRC gives us confidence for continued success. Southern Colorado covers a large region of the state and contains a diverse group of colleges and universities. This conference gave students an opportunity to meet other math majors and to gain a perspective about the mathematics profession. The attendance for the first conference was double what we anticipated. We expect the number of students who present next year will go up significantly from the 18 who presented this year.

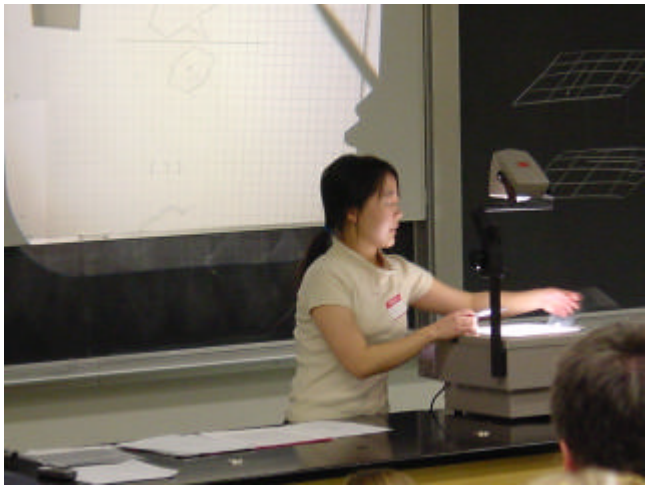
The participants were very complimentary about the conference, and supplied us with excellent suggestions for future conferences. Although 81% of the students felt that there was enough time to meet other students, several commented that they would have liked more time to meet other students and learn more about the programs at the other schools. Students also suggested a panel on careers in mathematics and opportunities to interact more with graduate students. Some students also suggested mathematics talks given by graduate students. We plan to integrate many of these suggestions at the 2nd annual PPRUMRC, which is tentatively scheduled to be at Colorado College in Colorado Springs. The continued support and enthusiasm of faculty and students will make the 2nd annual PPRUMRC even more successful.

Hortensia Soto-Johnson, CSU-Pueblo
Mike Brilleslyper, USAFA

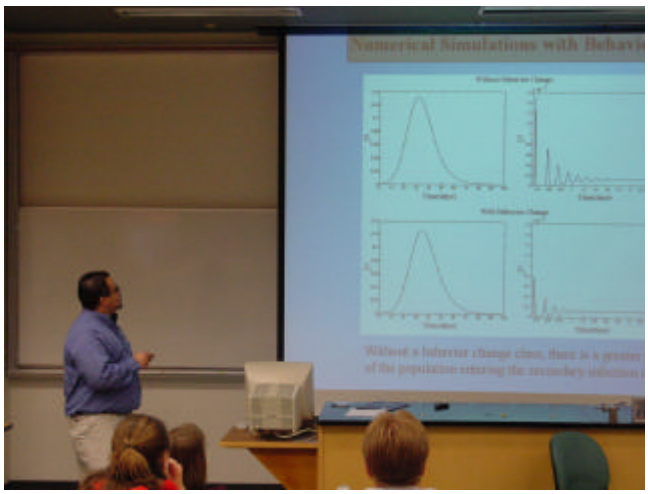


Dr. Rob Tubbs illustrating *"Presidential Doodles and Geometric Perfections"*

The graduate students from left to right: RaKissa Cribari, Leslie Varys, Sheila Miller and Trent Kull.



Yulang Qing from Colorado College discusses *"The Knight's Tour Problem"*



Chad Gonzales from Colorado State University-Pueblo discusses *"Change in Host Behavior and Its Impact on the Co-evolution of Dengue"*

MAA's 3rd Annual Mathematical Study Tour –Land of the Ancient Mayan Peoples May 23 to June 2, 2005

Tour fabulous archaeological sites of the Mayan civilization; enjoy lectures and seminars on Mayan calendars, geometry and astronomy. For pricing information, itinerary and registration form, visit http://maa.org/mexico or contact Lisa Kolbe at lkolbe@maa.org. The tour is limited to 30 participants.

My Spellchecker

Eye halve a spelling chequer
It came with my pea sea
It plainly marques four my revue
Miss steaks eye kin knot sea.
Eye strike a key and type a word
And weight four it two say
Weather eye am wrong oar write
It shows me strait a weigh.

As soon as a mist ache is maid
It nose bee fore two long
And eye kin put the error rite
Its rare lea ever wrong
Eye have run this poem threw it
I am shore your pleased two no
Its litter perfect awl the weigh
My chequer tolled me sew
- Sauce unknown

University of Northern Colorado to Host 2005 Meeting

The Program Committee is pleased to announce the results of its preliminary planning for the 2005 Spring Section Meeting, to be held at the University of Northern Colorado on April 15-16. A special theme of the meeting will be collaborations between mathematicians and mathematics education researchers. To launch this theme, a workshop entitled **Collegiate Mathematics Education Research** will take place on Friday morning. This workshop will focus on three strands: (1) finding existing collegiate mathematics education research; (2) understanding collegiate mathematics education research; and (3) becoming involved in collegiate mathematics education research. Additional information about the workshop, including meeting times and registration fees, will be available in the spring newsletter.

In keeping with tradition, the meeting will officially open Friday afternoon with a special address by our most recent Burton W. Jones Distinguished Teaching Award Recipient, **Dr. Don Teets** of the South Dakota School of Mines and Technology. In addition to being a truly outstanding teacher, Dr. Teets has published several articles in this area in MAA journals. A recent paper on Gauss, which illustrated the intersection of his research interests in mathematics, history, and astronomy, won the MAA's Carl B. Allendoerfer award. We look forward to an enlightening and entertaining talk by Dr. Teets!

This year's Invited Keynote Speaker will be **Dr. Jean Bee Chan** of Sonoma State University. Dr. Chan currently serves as the Second Vice-President of the MAA. In addition to Saturday's Keynote, which will probably be on a topic in geometry, Dr. Chan will deliver the Friday Banquet Address. Titles and abstracts for both talks will be available later this fall, once Dr. Chan returns from her current trip to China!

A special feature of this year's meeting will be a **joint panel discussion** with the **Colorado Council of Teachers of Mathematics**. This discussion will bring together teachers from each of the different levels of K-16 education to examine the theme: **Developing Algebraic Thinking: A journey from Pre-school to College**. CCTM will later be hosting (in Fall 2005) a Regional NTCM Conference on this same theme. More information about panelists and the upcoming regional conference will be announced in the Spring Newsletter.

Another exciting feature planned for this year will be a **Mathematics Awareness Month Undergraduate Poster Session**. Organized by **Kyle Riley** of the South Dakota School of Mines and Technology, the session will have a general theme related to mathematics awareness month. Prizes will also be offered for Best in Show, Best Use of Mathematics and Most Creative. More information about the session can be found on page 15 of this newsletter. Please encourage your students to take part in this opportunity.

Rounding out the scientific program will be talks contributed by **intelligent, involved and inspirational people like you!** Information on submission guidelines can be found in the **First Call for Papers** and **Speaker Response Form** on pages 13 and 14 of this newsletter.

Finally, **MAA books** will again be on display at the meeting, with the opportunity to purchase books at a discount **below membership prices**! Not only does this save you money, but also the section receives a 10% "rebate" on all orders placed at the meeting. We also hope to have textbook publishers and other vendors available on-site. ***Please encourage your book reps to contact Program Chair Shandy Hauk (shandy.hauk@unco.edu) early to make arrangements for this event.***

First Call for Papers

The **deadline** for submission of abstracts for the 2005 Spring Section Meeting is **March 4, 2005.** Proposals received from students and MAA members after this date will be scheduled on a first-come, first-scheduled, space-available basis. Proposals from non-members sponsored by MAA members must be received by the deadline.

Although talks on all topics mathematical are welcome, special sessions are being organized around the following themes:

Interesting Ideas in Number Theory

Organized by Jane Arledge (arledge@mesastate.edu) and Rob Tubbs (robert.tubbs@colorado.edu)

In this session, we will share interesting tidbits of knowledge and explore connections in the broad areas of number theory and geometry. Talks should be addressed to general mathematics faculty.

History of Mathematics and Its Use in Teaching

Organized by Janet Barnett (janet.Barnett@colostate-pueblo.edu)

This session invites talks on historical topics and their use in teaching mathematics, especially in courses other than a history of mathematics course.

Preparation of Future College Mathematics Faculty

Organized by Shandy Hauk (shandy.hauk@unco.edu)

Current programs and future directions for collegiate teaching preparation. Could include presentations on working with math graduate students as they become undergraduate teachers; programs with part-time and adjunct faculty; work with new, tenure-track faculty. Programs and goals at 2-year and 4-year undergraduate institutions as well as in master's and Ph.D. granting departments.

Student Papers

Organized by Shandy Hauk (shandy.hauk@unco.edu) and Jody Novak (Jodie.novak.unco.edu)

Are you supervising a student research project? Encourage your student to present their results at the meeting! Registration is free for all students, and student speakers receive a complimentary one-year membership in the MAA, including the journal of their choice.

The default talk length will be 20 minutes, with every effort made (within the constraints of the schedule) to accommodate requests for longer talks and other scheduling preferences. Please submit special requests early.

For non-electronic submissions, please use the Speaker Response Form located on the following page. **E-mail equivalents of this form are encouraged!** Please be sure to include all requested information if using e-mail.

Please direct questions and suggestions about the program, including ideas for additional panel discussions or special sessions, to Program Chair Shandy Hauk at Shandy.Hauk@unco.edu or 970 - 351-2344.

Speaker Response Form - Due 4 March 2005

Speaker Name _____

Affiliation _____

Mailing Address (Please include affiliation if needed for U.S. mail)

_____

_____

Email Address _____ Phone Number _____

Faculty Sponsor* _____

MAA Member Sponsor** _____

Title: _____

Abstract (100 words or less):

Is this talk intended for any of the following special sessions?

Interesting Ideas in Number Theory _____
History of Mathematics _____
Preparation of Future College Mathematics Faculty _____
Student Paper Session _____
Students: Are you a graduate or undergraduate? _____

Special Equipment Needs: _____
Schedule Preference Request: _____
Special Talk Length Request: _____

PLEASE RETURN THIS FORM OR AN E-MAIL EQUIVALENT TO:
(Note: e-mail submissions are strongly preferred.)

Shandy Hauk
Department of Mathematical Science
University of Northern Colorado
Greeley, CO 80639-0001

Shandy.Hauk@unco.edu

* For student speakers only ** For non-MAA members/non-students only

Mathematics Awareness Month
Undergraduate Poster Session Contest
Rocky Mountain Section Meeting, April 2005

Schedule and Location: During the general reception on Friday night.

This next year we would like to hold an undergraduate poster session contest during the April meeting of the Rocky Mountain Section Meeting of the MAA. Entries in the contest will try to meet the goal of creating awareness of mathematics to a general audience. The poster contest will also have a theme so the session generally ties together.

Theme: **Mathematics Could Save Your Life** – Poster entries should give examples, or illustrations, of how mathematics has played a role in saving lives. Math is valuable tool in several applications where lives are at stake: severe weather forecasting, medical imaging, public safety, are just a few examples.

Prizes: Prizes will be evaluated by a team of judges (each entry can win **at most** one prize)

- **Best in Show** ($50) – The entry that best adheres to the theme and is the best example for creating awareness of mathematics in a general audience.
- **Best Use of Mathematics** ($50)
- **Most Creative** ($25)

Judging: Judging will involve a team of three faculty and three students from institutions that are members of the Rocky Mountain Section of the MAA.

Rules:

- At most one entry from each institution.
- Entries must be the sole production of students.
- Presentation format is a poster session.
    - All entries must be self-contained (internet connections and possibly power outlets will not be available and space will be limited)
- The scores from any judge directly affiliated with an entry will automatically be one of the scores dropped.
- At most one judge from any individual institution.
- Awards will be announced during the banquet.

Register: Space may be limited so be sure to register (**registration is absolutely free!**). To register, or to volunteer as a judge, send an email to Kyle.Riley@sdsmt.edu with the following information:

- To register please send the name of your institution and the name of a faculty member that will act as advisor.

If you would like additional information then please consult the following website
http://www.mcs.sdsmt.edu/~kriley/pubinfo/maa/poster.html

Grants Available

Section Activity Grants Available

Applications for Section Activities Grants are again being accepted to assist Section members with projects in support of the Section Mission. Proposals may request up to $500; matching funds are preferred, but not required.

The project director(s) must be a current member(s) of MAA, and the proposal must be clearly tied to one or more of the Rocky Mountain Section Mission Goals. A copy of these goals appears on the inside back cover of this newsletter. All applications must include the following:

(a) Description of project (no more than one page);

(b) Statement of how project supports Section Goals (no more than one page);

(c) Estimated budget, including description of matching funds available, if any;

(d) Vitae of project director(s).

Upon completion of the project, the director(s) of the funded projects are required to file a brief report (no more than one page), and to present a project report at the next meeting of the Section.

Two non-officer members of the Section will review applications; the Executive Committee on the basis of the reviewers' reports will make final funding decisions. Although applications are accepted at any time, please note that notification of funding decisions may take up to two months following receipt of the application by the section secretary.

Student Recognition Grants Available

The establishment of a Student Recognition Grant Program was approved by the section membership at the 2003 Annual Business Meeting. In support of this program, the Section will set aside $500 every calendar year. From these monies, the Section will make grants for the purpose of recognizing superior achievement in mathematics on the part of (1) students enrolled in post-secondary institutions within the geographic region served by the Section and (2) high school students whose school districts, or other appropriate political subdivisions, substantially intersect the geographic region served by the Section.

Proposals for such grants must

1. Originate from a member of the Rocky Mountain Section of the Mathematical Association of America on behalf of an agency, institution, or organization whose stated purposes are consistent with recognizing or encouraging superior academic achievement at the high school level;
2. Be in the hands of the Chair of the Rocky Mountain Section no later than March 15 of the year in which the proposed recognition is to be made;
3. Include the criteria under which superior achievement in mathematics is to be recognized, together with the time and the manner of such recognition;
4. Report, insofar as possible at the time of the proposal, other potential sources of support together with proposals or requests made or intended; and
5. Be limited to a maximum amount of $250.

The Executive Committee will review all proposals for grants under this policy and will make such grants as, in its sole judgment, it deems proper. In keeping with the section mission, funding priority will be given to grants that include recognition of undergraduate students. Funding decisions will be announced no later than the Annual Business Meeting of the Section. Monies not expended during any particular year shall revert to the Section's general fund.

Section Logo Shirts Available

First unveiled at the 2002 Spring Section Meeting in Laramie, Rocky Mountain Section Logo shirts are now available in two styles: a **long-sleeved button-front denim shirt** and a **short-sleeved white polo shirt**. Both styles are 100% cotton and feature the section logo in high-quality color embroidery on the front left.

In order to promote awareness of the MAA and the Rocky Mountain Section, prices have been set in order to recover production costs, just **$35 for denim** and **$30 for polo**. Proceeds, if any, will be used to support section activities.

If you are interested in obtaining one of these special shirts for yourself, a colleague, a friend, a student, or a loved one, please contact the section secretary**, Janet Barnett,** with information on desired quantities and sizes.

2004 Section Meeting Report

Over 175 mathematicians, mathematics educators and mathematics students converged in Colorado Springs over the weekend of April 16–17 to enjoy the warm spring weather of the Rockies, the gracious hospitality of the Colorado College, and the superb scientific program of the 2004 Annual Spring Section Meeting.

The meeting was officially opened with a welcoming message from Colorado College President **Richard Celeste**. Our 2003 Burton W. Jones Distinguished Teacher Award Recipient **Hugh King** of the Colorado School of Mines, then shared the inspirational story of the Namlo Foundation. A non-profit foundation with no political or religious affiliations, the Namlo Foundation was co-founded by Hugh and his wife Magda, with the goal of designing programs and solutions that truly benefit the people of developing countries. The Foundation also works with students from elementary to university level to help students in the United States become more aware of world issues, and to give them an opportunity to use their learning to make a difference.

Later on Friday afternoon, storyteller extraordinaire **Robin Wilson** of the Open University shared highlights from the history of four-color problem in his invited address *Four Colors Suffice: How the Map Problem Was Solved*. Complete with intrigue and colorful characters, Robin's talk left participants eager to learn more from his recently published book of the same title.

Following a magnificent reception and banquet in beautiful Bemis Hall, **Lowell Beineke** (Indiana-Purdue University at Fort Wayne*)* entertained and amazed meeting participants with games and puzzles deriving from the *Splendor in the Graphs*. Having shared the basic ABC's of graph games on Friday evening, Lowell gave meeting participants a more in-depth look at the three C's of planar graphs (colorings, coverings and crossings) in his Saturday Keynote Address, *Graphs are Finally Surfacing*. In his capacity as editor of the *College Mathematics Journal*, Lowell also updated members on several national level MAA programs at Saturday's business meeting, and encouraged participants both to submit their work for possible publication in MAA journals, and to volunteer their services as referees for the same.

The richness of the scientific program matched the richness of the surroundings, food and hospitality, with special sessions on developmental mathematics and transfer level mathematics organized the Colorado Mathematics Association of Two Year Colleges (COLOMATYC), 38 contributed paper talks, including 14 by students [see page 18], a reception and organizational meeting for a Rocky Mountain Section NExT Program, and a very well attended workshop on *Issues in Teaching Statistics Workshop*, led by **Steven Janke** and **Fred Tinsley** of the Colorado College.

Other meeting features included a Department Chairs Luncheon hosted by **Steven Janke** and **Marlow Anderson** of Colorado College, a COLOMATYC Business Meeting organized by **Rick Reeves** of Red Rocks Community College, a meeting of Department Liaisons, a highly successful MAA book sales display, the usual early morning Business Meeting [see pages 19-20], and door prizes for a few lucky winners at Friday's Banquet.

The Section wishes to thank **Houghton Mifflin Publishing**, **Key College Press**, and the **Colorado College Dean's Office** for their support at the meeting. Thanks also go out to the entire **Colorado College Mathematics faculty and students** for their many hours of volunteer work and warm hospitality throughout the meeting. And for their incredible attention to detail and commitment to ensuring a successful conference for all involved, a special vote of gratitude goes out to program co-chairs **John Watkins** and **Josh Laison** -- congratulations on a job very well done indeed!

Contributed Papers

History of Mathematics Special Session

Janet Heine Barnett, CSU–Pueblo
Power and Politics, Conquest and Crusade: War, Revolution and History of Mathematics
Harold Davenport, Mesa State College
Historical Survey of the Arithmetic of Algebras
Russell Gredig, Bridges High School (student paper)
Eureka! Archimedes Surprises Us Once Again
George Heine, Bureau of Land Management
War in the Best of All Possible Worlds: Leibniz on the Role of Mathematics in War and Peace
Karla Oty, CSU–Pueblo
The Quiddities of the Quipu

Innovative in the Classroom Special Session

Michael A. Brilleslyper, United States Air Force Academy
Using Short Writing Assignments to Gain Conceptual Understanding in Differential Equations
David Brown, Colorado College
Teaching a Seminar on the Mathematics of HIV
Janet Burgoyne, South Dakota School of Mines and Technology
Musical Acoustics: An Application of the Wave Equation
John Lorch, Ball State University
A Content Course for Preservice Mathematics Teachers
Igor Szczyrba, University of Northern Colorado
What Distinguishes Educational Mathematics from Mathematics Education?

Interesting Ideas in Number Theory and Geometry Special Session

Chris Niemann
Base Camp Preparations for the Assault on Mount R.H.
Erik Packard, Mesa State College
lim sup sin n = 1
Philip Straffin, Beloit College
Geometry of Mirror Curves: Tshokwe Sona, Rangavalli and Celtic Knots
Sarah Tekansik, Mesa State College (student paper)
A Mighty Theorem of Nines
Rob Tubbs, University of Colorado
On the Number .1234567891011121314…

General Session

Barry Balof, Whitman College
Old Theorems, New Proofs
Shahar Boneh, Metropolitan State College of Denver
Newcomb's Problem and some insights
George Heine, Bureau of Land Management
Using Statistics to Save Homes
Erica M. Johnson, Tracy Lawrence, Terry Reeves, Arapahoe and Red Rocks Comm. Colleges
Incorporating Interdisciplinary Lively Application Projects in the Classroom
Roger W. Johnson, South Dakota School of Mines & Technology
Game Length for Chutes and Ladders and Hi Ho! Cherry-O
Philip Kavanagh, Mesa State College
Functions of Matrices
Andrew G. Keck, Western State College
Diffusion and Biodiversity
Wojciech Kosek, Colorado College
A multiplicity problem in Ramsey Theory on the Integers
Daluss Siewert, Black Hills State University
Bipartite Graphs with Equal Biclique Cover and Partition Numbers
Louis Talman, Metropolitan State College of Denver
Simpson's Rule is Exact for Quintics
Robin Wilson, The Open University
Video: *Introduction to Topology*

Student Sessions

Lindsay Bush, Fort Lewis College
Constructible Numbers and Angles
Daniel Crumly, Mesa State College
Various Models of Finite Automata
Robert Dixon, Metropolitan State College of Denver
Chaos and Neural Networks
Brad Gelling, Fort Lewis College
Knot Theory
MaryClara Jones, CSU – Pueblo
The Rotations of Regular Polyhedrons
Patrick R. Gronstal and **Robert E. Kirchhoff,** Regis University
Mathematics of Portfolio Design Applied to Inflation and Risk/Reward Ratios
Scott O'Dowd, Metropolitan State College of Denver
Chaos in the Financial Markets
Douglas Perkins, Colorado College
Virtual Mathematicians: Automated Theorem Provers
Yulan Qing, Colorado College
Knight's Tours on Surfaces
Adrian Samson, University of Colorado at Colorado Springs
Mathematical Models for Ion Channel Dynamics
Michelle Schick, Colorado College
Seeing Dots: Explorations on the Visibility of Lattice Points
Erum Tariq, South Dakota School of Mines and Technology
Introduction to Point Pattern Analysis

Minutes: 2004 Section Business Meeting

Section Chair Rob Tubbs (CU-Boulder) called the meeting to order at 8:02, 17 April 2004. Minutes of the meeting for the preceding year were approved; Section Secretary Janet Barnett (CSU-Pueblo) later amended the minutes to reflect the correct calendar year dates within the Treasurer's Report.

Nominating Committee Chair Tracii Friedman (Mesa) reported that there were three candidates for Section Chair Elect: Jeff Berg (Arapahoe), Don Teets (SDSMT) and John Watkins (CC). The three nominees each made brief statements. As there were no further nominations from the floor, Friedman and Nominating Committee member Cheryll Wingard (Aurora) distributed ballots.

Section Treasurer Janet Barnett presented the financial report. In summary, in the 2003 Annual Financial Report filed with national, the section reported holdings of $10,881.64 as of 31 December 2003, with revenues totaling $6062.59 and expenses totaling $4651.23 for the 2003 calendar year. Barnett noted that there was a change in the accounting method used for the 2003 Annual Financial Report, from the previously employed accrual method to the cash basis method preferred by national. She further reported that, after paying Spring Newsletter costs, the section held $10,355.45 in interest-bearing accounts on 31 March 2004, of which $1495.61 is encumbered in some form. This amount is up slightly from the $9764.20 that the section held as of 31 March 2003. She added that expenses related to the CC section meeting were as yet unknown, but some profit is expected. Voluntary dues contributions also continue to be strong. Copies of a more detailed financial report are available from Barnett.

Tubbs reported on two items from the Section Executive Committee:

- Beginning in Fall 2004, the section will begin mailing only a one–page "Newsletter Light" to members, with the full newsletter posted on-line. Individuals will be able to request that a hard copy of the full newsletter be mailed to them. The eventual goal will be to notify members of the newsletter's on-line availability via electronic mail, again with the option of receiving a printed copy by U.S. mail upon request. As an intermediary stage, a simple postcard may be used to notify members of on-line availability. Eventually, the section hopes this initiative will save on mailing and printing costs, without negatively impacting participation at meetings.
- A total of four nominations for the Section Distinguished Teaching Award were received this year, a significant increase from previous years. This increase followed a concerted effort by the executive committee to increase the number of nominations received. All nominators now receive a certificate of appreciation from the section in recognition of their efforts to support the section mission of promoting excellence in teaching; nominators and nominees also receive free meeting registration at the next section meeting. Following discussion as to why more nominations do not come forward, it was suggested that the membership might not have a clear idea of the selection criteria. Barnett agreed to collect the award citations for past recipients together for posting on the section website as a means of communicating these criteria to potential nominators and nominees.

Tubbs closed his report by thanking the membership for revitalizing the section meeting by bringing their undergraduate students to the section meetings, as well as to undergraduate conferences within the section.

Lowell Beineke (Editor of the College Mathematics Journal) reported that the Rocky Mountain Section is his first section meeting as editor of the CMJ, and that his impressions of the conference have been very good. Beineke encouraged members to write up things they are thinking about for submission to the CMJ, and indicated that there is also a great need for referees. He went on to report on various national MAA programs, including the CUPM Curriculum Guide and other new publications, the PREP project in mathematics education, Project ACCESS for two-year college faculty , the Mathematics Olympiad, and the MAA Science Policy Initiative. Details concerning these programs can be found at www.maa.org.

Section Governor Tensia Soto–Johnson (CSU-Pueblo) reported the following from the national Board of Governors.

- MathFest 2004 will take place in Providence, August 12–14.

- The Web Policies Board examining the possibility of establishing "members only access" to some sections of the website. Soto–Johnson is a member of this board.
- The Advisory Board for the Carriage House Project, of which Soto–Johnson is a member, has hired an architect for the renovation project. The grand opening is planned for May 2006, to coincide with Halmos' 90th birthday; the project has been made possible by a generous donation from Halmos and his wife. Plenary talks as well as activities for high school teachers, math students and mathematicians are planned as part of the grand opening.
- The MAA's 100-year anniversary will take place in 2015; artifacts to represent the section's history have been requested for display as part of the anniversary celebration. The section's long-time members are especially encouraged to suggest ideas and contribute their stories to a history of the section.

Following Soto-Johnson's Governor's Report, Phil Straffin (Beloit College) voiced an objection to restricting access of any part of the association's website on the argument that free access to information is a basic principle of the world-wide web. A comment was also made in favor of restricting access to e-mail addresses of members.

Soto–Johnson reported on the first annual Pikes Peak Undergraduate Research Mathematics Conference (PPURMC), held at CSU-Pueblo on February 28, 2004. With approximately 80 students and faculty in attendance, the one-day conference was a huge success. Colorado College will host the second PPURMC in February 2005; John Watkins will serve as conference organizer.

Dick Gibbs (Fort Lewis) reported on student competition activities in the section. The Colorado Mathematics Award Reception will take place in Denver in May to recognize the top performers on several student exams; the section is one of the supporters of that event. Among the students and coaches to be recognized this year, there will be two CU–Boulder teams who earned the highest possible designation of "Outstanding" on the Mathematics Modeling Competition; both teams were also selected for one of the national named prizes at the undergraduate level. Gibbs reported that there were also five Colorado undergraduate students in the top 500 students on the Putnam Exam this year, and five Colorado high school students who qualified to write the US American Mathematics Olympiad on the basis of their performance on the American Mathematics Competition-10. Gibbs closed his report with a request for information on a student competition sponsored by AMATYC (American Mathematics Association of Two Year Colleges).

Tubb made various announcements, including the selection of Don Teets of the South Dakota School of Mines and Technology as the 2004 Burton W. Jones Distinguished Teaching Award Recipient, and dates of upcoming meetings.

Friedman announced the election results; Jeff Berg will serve a one–year term as Section Chair–Elect beginning in April 2004. Berg will then serve a two-year term as Section Chair in 2005–2007, and a one–year term as Past Chair in 2007-2008.

Barnett announced that materials on section programs were available at the back of the room, including the 2004 Section Liaison List, nomination brochures for the 2005 Distinguished Teaching Award, and information on Section Grant Programs. She also announced that Soto-Johnson and Josh Laison (CC) will host a meeting later in the day to discuss the possible formation of a Section NExT program, and encouraged conference participants to buy books from the MAA Book Display.

Graeme Fairweather (Mines) announced that the Colorado School of Mines is planning to apply for a grant from the MAA to support a Front Range Undergraduate Mathematics Conference. If funded, that conference would take place in the fall semester.

The Section approved a motion to thank the Colorado College and Program Co-Chairs John Watkins and Josh Laison for their efforts in organizing and hosting the meeting. Tubbs adjourned the meeting at 8:52 a.m.

Respectively submitted,

Janet Heine Barnett, Secretary/Treasurer

About Our Logo

The logo for the Rocky Mountain Section of the Mathematical Association of America was created in by Mark Petersen in 2001. A graduate student in the Applied Mathematics Department at the University of Colorado at Boulder at that time, Mark says of his design:

"The mountain symbols were chosen because analysis is the foundation for all of mathematics. The equation $e^{i} + 1 = 0$ must rank among the most beautiful formulas in mathematics. It connects the five most important constants of mathematics with the three most important operations - addition, multiplication, and exponentiation. These five constants symbolize the four major branches of classical mathematics: arithmetic, represented by 0 and 1; algebra, by *i*; geometry, by ; and analysis, by *e*. (Quoted from Eli Maor's *e, The Story of a Number*). I chose to portray this equation as a train because rail has historically been the life blood of the American West, and trains are complementary to any mountain scene."

Meetings Calendar

MAA Rocky Mountain Section Meeting, University of Northern Colorado; April 15-16, 2005

ICTCM, New Orleans; October 28-31, 2004
AMATYC National Conference, Orlando; November 18-21, 2004

Joint Mathematics Meetings, Atlanta; January 5-8, 2005
NCTM National Meeting, Anaheim; April 6-9, 2005
MAA MathFest, Albuquerque; August 4-6, 2005
AMATYC National Conference, San Diego; November 10-13, 2005

Joint Mathematics Meetings, San Antonio; January 12-15, 2006
NCTM National Meeting, St. Louis; April 26-29, 2006

Joint Mathematics Meetings, New Orleans; January 4-7, 2007
Joint Mathematics Meetings, San Diego; January 6-9, 2008

The Rocky Mountain Section of
The Mathematical Association of America

Burton W. Jones Award
for Distinguished College or University Teaching of Mathematics

Nomination Form

Name of Nominee _____
(First name first)

College or University Affiliation _____

College or University Address _____

City _____ State _____ Zip: _____

Is the nominee a member of the MAA? _____

Number of years of teaching experience in a mathematical science _____

Has the nominee taught at least half time in a mathematical science
for the past three years (not counting a sabbatical period)? _____

In the space below, please briefly describe the unusual personal and professional qualities of the nominee that contribute to her or his extraordinary teaching success.

Name of Nominator) _____
(first name first)
Address of Nominator _____

_____

Email Address _____

Telephone: Work _____ Home _____ Fax _____

Nominator's Signature _____

Nomination form should reach Section Secretary by 1 December 2004.
Complete nomination materials should reach Section Secretary by 29 January 2005.
Please consult section webpage (http://www-math.cudenver.edu/~maa-rm/) for complete guidelines and address of Section Secretary.

Voluntary Section Dues

Many thanks to those members who have made a voluntary dues contribution to the section along with your 2004 Spring Meeting Registration!

Although the section has found itself in good financial health in recent years, additional funds are always needed in order to pursue special initiatives suggested by the membership. The successful John Fauvel Memorial Conference and William Dunham Special Lecture, both supported in part by the Section Activity Grant program, provide excellent examples of what can be done with even a small amount of funding to support our section mission and goals.

A voluntary section dues contribution from you now can help build up funds in support of similar initiatives!

To submit your dues, simply return the coupon below with a check for any amount you wish - every little bit will help, and all contributors will receive a letter acknowledging the contribution for their financial records.

MAA Rocky Mountain Section Voluntary Dues Contribution Form

Name _____

Address _____

_____ **ZIP** _____

Please indicate in the space provided how you would like your dues to be used:

_____ Undergraduate Student Initiatives
_____ Graduate Student Initiatives
_____ Burton W. Jones DTA Fund
_____ Section Activity Grant Program
_____ Wherever needed most
_____ Other: _____
_____ **TOTAL DUES PAID ($10 recommended)**

Please make check payable to: **MAA Rocky Mountain Section** and return to: Janet Barnett; MAA Rocky Mountain Section Treasurer; Department of Mathematics & Physics; Colorado State University - Pueblo, 2200 Bonforte Boulevard; Pueblo, CO 81001-4901.

MAA Rocky Mountain Section
Mission Statement

**To promote excellence in mathematics education,
especially at the collegiate level.**

Mission Related Goals

1. To foster scholarship, professional development, and professional cooperation among the various constituencies of the mathematical community within the region.

2. To foster the implementation and study of recent research recommendations for the teaching, learning and assessment of collegiate mathematics.

3. To support the implementation of effective mathematics preparation programs of prospective teachers at all levels.

4. To enhance the interests, talents and achievements of all individuals in mathematics, especially of members of underrepresented groups.

5. To provide recognition of the importance of mathematics, mathematical research and quality mathematics teaching, and promote public understanding of the same.

6. To provide regional leadership in the promotion of systemic change in mathematics education, and in the enhancement of public understanding about the needs and importance of mathematical research and education.