



# FALL 2014 NEWSLETTER

Section Website <http://sections.maa.org/rockymt>

**Fall 2014 Newsletter in PDF Format for Printing**

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## Table of Contents

|   |    |
|---|----|
| <b>Fall 2014 Newsletter in PDF Format for Printing</b> .....  | 1  |
| <b>Table of Contents</b> .....  | 2  |
| <b>2014 - 2015 Section Officers and Committee Members</b> .....   | 4  |
| <b>Anne Dougherty of University of Colorado at Boulder named 2014 Distinguished Teacher</b> .....                         | 6  |
| <b>2015 Distinguished Teaching Award Call for Nominations</b> .....   | 6  |
| <b>Past Burton W. Jones DTA Recipients</b> .....  | 7  |
| <b>Chair's Report</b> .....   | 7  |
| <b>Governor's Report</b> .....  | 8  |
| <b>19<sup>th</sup> Annual Colorado Mathematics Awards Ceremony/Reception</b> .....  | 8  |
| <b>12<sup>th</sup> Annual PPRUMC United States Air Force Academy Saturday, February 21, 2015</b> .....                    | 9  |
| <b>Section News</b> .....   | 10 |
| <b>Colorado School of Mines</b> .....   | 10 |
| <b>Metropolitan State University of Denver</b> .....  | 11 |
| <b>Regis College</b> .....  | 11 |
| <b>South Dakota School of Mines and Technology</b> .....  | 11 |
| <b>University of Northern Colorado</b> .....  | 11 |
| <b>University of Denver</b> .....   | 11 |
| <b>Colorado School of Mines and Denver Public Schools STEM Collaboration</b> .....  | 12 |
| <b>Section Nominating Committee Report</b> .....  | 13 |
| <b>Colorado Council of Teachers of Mathematics (CCTM) News</b> .....  | 13 |
| <b>Colorado College to Host the 100<sup>th</sup> Anniversary Rocky Mountain Section Meeting April 17 - 18, 2015</b> ..... | 14 |
| <b>Student Activities</b> .....   | 15 |
| <b>2014 Section Meeting Report</b> .....  | 15 |
| <b>Contributed Papers - 2014 Section Meeting</b> .....  | 16 |
| <b>Mathematical Biology</b> .....   | 16 |
| <b>Mathematics History I</b> .....  | 16 |
| <b>Street Mathematics</b> .....   | 16 |
| <b>Calculus Teaching</b> .....  | 17 |
| <b>Mathematics History II</b> .....   | 17 |
| <b>Graduate Student Session</b> .....   | 17 |
| <b>Matrices</b> .....   | 18 |
| <b>Learning</b> .....   | 18 |
| <b>2014 Business Meeting Minutes Saturday, March 30, 2014</b> .....   | 19 |
| <b>2014 Executive Committee Meeting Minutes Thursday, March 27, 2014</b> .....  | 21 |
| <b>MAA Rocky Mountain Section Suggestions for Speakers</b> .....  | 23 |
| <b>Grants Available</b> .....   | 24 |
| <b>Section Activity Grants Available</b> .....  | 24 |
| <b>Student Recognition Grants Available</b> .....   | 24 |
| <b>About Our Logo</b> .....   | 25 |
| <b>Meetings Calendar</b> .....  | 25 |
| <b>Burton W. Jones Award Nomination Form</b> .....  | 26 |

|  |    |
|--|----|
| <b>Voluntary Section Dues</b> .....                                      | 27 |
| <b>MAA Rocky Mountain Section Voluntary Dues Contribution Form</b> ..... | 27 |
| <b>MAA Rocky Mountain Section Mission Statement</b> .....                | 28 |

# 2014 - 2015 Section Officers and Committee Members

Section Website <http://sections.maa.org/rockymt>

## Section Executive Committee Officers for 2014 – 2015

|                                 |   |  |
|---------------------------------|---|--|
| <b>Chair</b>                    | Kyle Riley<br>South Dakota School of Mines and Technology<br>Rapid City, SD 57701 | kyle.riley@sdsmt.edu<br>605-394-2471                               |
| <b>Past Chair</b>               | William Cherowitzo<br>University of Colorado Denver<br>Denver, CO 80217           | william.cherowitzo@ucdenver.edu<br>303-556-8381                    |
| <b>Vice-Chair</b>               | Erica Marlys Hastert<br>CCCOOnline  | erica.hastert@cccs.edu<br>720-858-2334                             |
| <b>Secretary/<br/>Treasurer</b> | Heidi Keck<br>Western State Colorado University<br>Gunnison, CO 81231             | hkeck@western.edu<br>970-943-3167                                  |
| <b>Governor</b>                 | Bill Emerson<br>MSU Denver<br>Denver, CO 80217                                    | emersonb@msudenver.edu<br>303-556-3930                             |
| <b>Program</b>                  | Marlow Anderson<br>Andrea Bruder<br>Colorado College<br>Colorado Springs, CO      | manderson@coloradocollege.edu<br>andrea.bruder@coloradocollege.edu |

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## Other Committee Members and Representatives

### Section Nominating Committee

|                                       |                             |
|---------------------------------------|-----------------------------|
| Mike Brilleslyper (Chair), USAFA      | mike.brilleslyper@usafa.edu |
| Jeff Berg, ACC                        | jeff.berg@arapahoe.edu      |
| Gus Greivel, Colorado School of Mines | ggreivel@mines.edu          |

### Awards Selection Committee

|                                 |                                 |
|---------------------------------|---------------------------------|
| Bill Cherowitzo, (Chair), UCD   | william.cherowitzo@ucdenver.edu |
| Erica Marlys Hastert, CCCOnline | erica.hastert@cccs.edu          |
| Anne Dougherty, UC Boulder      | anne-dougherty@colorado.edu     |
| Stan Payne, UCD                 | stanley.payne@ucdenver.edu      |

### Section Student Activity Coordinator

|                                  |                            |
|----------------------------------|----------------------------|
| Carl Lienert, Fort Lewis College | lienert_c@fortlewis.edu    |
| Beth Schaubroeck, USAFA          | beth.schaubroeck@usafa.edu |

### Higher Education Representative on CCTM Governing Board

|   |                         |
|---|-------------------------|
| Gulden Karakok, University of Northern Colorado | gulden.karakok@unco.edu |
|---|-------------------------|

### Section Book Sales Coordinator

|                                   |                                    |
|-----------------------------------|------------------------------------|
| Janet Heine Barnett, CSU - Pueblo | janet.barnett@colostate-pueblo.edu |
|-----------------------------------|------------------------------------|

**Section NExT Committee**

Diane Davis (Co-Chair), MSU Denver  
Bob Cohen (Co-Chair), WSCU  
Kim Fix, WSCU

ddavi102@msudenver.edu  
rcohen@western.edu  
kfix@western.edu

**Public Information Officer and Section Liaison Coordinator**

Heidi Keck, Western State Colorado University

hkeck@western.edu

**Website Editors**

George Heine  
Janet Heine Barnett, CSU - Pueblo

gheine@mathnmaps.com  
janet.barnett@colostate-pueblo.edu

**Newsletter Editor**

Linda Sundbye  
Metropolitan State University of Denver  
Department of Mathematical and Computer Sciences  
P. O. Box 173362, Campus Box 38  
Denver, CO 80217-3362

sundbyel@msudenver.edu  
303-556-8437  
FAX: 303-556-5381

**Anne Dougherty  
of  
University of Colorado  
at Boulder  
named  
2014 Distinguished Teacher**

The Rocky Mountain Section established the Distinguished Teaching Award in 1991 and the award was named after Burton W. Jones in 1998. Dr. Burton Wadsworth Jones was a mathematics professor at Cornell University from 1930-48, but he later joined the faculty at the University of Colorado at Boulder from 1948 until his retirement in 1971. It is a fitting tribute to have **Dr. Anne Dougherty** earn the Burton W. Jones award for 2014.

The Distinguished Teaching Award has the following criteria: the nominee should be widely recognized as extraordinarily successful at the post-secondary level, have teaching effectiveness that can be documented, have influence in the teaching beyond their institution, foster curiosity and generate excitement about mathematics in their students. Dr. Dougherty has several honors and awards: College of Engineering and Applied Sciences Outstanding Faculty Advisor Award, Excellence in Service award from the CU Boulder Faculty Assembly, and she is also the J.R. Woodhill/Logicon Teaching Professor of Applied Mathematics. Dr. Dougherty has consistently drawn high marks in student opinion surveys and has led many curriculum improvements that range from creating new placement exams to the development of senior level applied analysis courses along with a host of curriculum activities in between.

Dr. Dougherty's influence in teaching outside CU can be captured in a number of ways. Her curriculum vitae reveals several grants involving outreach activities with teachers in local high schools and grants funding Math Circles for advanced high school students. One contribution that is truly unique is her outstanding contributions in the Mathematical Contest in Modeling, which is an international contest that involves thousands of student teams from around the world. Since 1997, CU Boulder has had 50 teams participate in the contest with 17 earning *meritorious* honors and

13 earning the *outstanding* designation. It should be noted that the *outstanding* designation is the top honor with only 12-17 teams reaching this level in any given year, last year involved over 6000 teams in the competition. This impressive record of international achievement is a tribute to the quality programs and students of CU Boulder, but it would not be possible without Dr. Dougherty's passion and dedication for generating excitement about mathematics in her students.

Dr. Anne Dougherty is an excellent example of a distinguished teacher for the Rocky Mountain Section and her contributions are very much aligned to the legacy of Burton W. Jones. Special thanks should go to Mark Ablowitz (CU Boulder) for his time and effort in preparing the dossier that was used to help prepare this report.

**Kyle Riley, SDSMT  
Chair, Rocky Mountain Section**

**2015 Distinguished Teaching  
Award Call for Nominations**

Each year, the section recognizes one outstanding teacher of collegiate mathematics with an award named in honor of Burton W. Jones, a lifelong advocate of excellence in teaching at all levels. In addition to an honorarium, a certificate and an invitation to deliver the opening lecture at the next Section Meeting, the recipient is eligible to be 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. All nominators also receive a certificate of in recognition of their efforts to support the section mission of promoting excellence in teaching; nominators and nominees both receive free meeting registration at the next section meeting. To begin the nomination process for an outstanding teacher that you know, simply submit the **one-page nomination form** (available at our website: <http://sections.maa.org/rockymt> and in this newsletter) by **15 December 2014**. **Complete nomination materials** (described on the website) are due **15 January 2015**.

## Past Burton W. Jones DTA Recipients

- 1992** John H. "Jack" Hodges  
University of Colorado at Boulder
- 1993** Gerald Diaz  
United States Air Force Academy
- 1994** A. Duane Porter  
University of Wyoming
- 1995** William D. Emerson  
Metropolitan State College of Denver
- 1996** Zenas Hartvigson  
University of Colorado Denver
- 1997** Thomas Kelley  
Metropolitan State College of Denver
- 1998** Monte Zerger  
Adams State College
- 1999** Bill Briggs  
University of Colorado Denver
- 2000** Barbara Bath  
Colorado School of Mines
- 2001** Jim Loats  
Metropolitan State College of Denver
- 2002** Gene Abrams  
University of Colorado at Colorado  
Springs
- 2003** Hugh King  
Colorado School of Mines
- 2004** Don Teets  
South Dakota School of Mines and  
Technology
- 2005** Bryan Shader  
University of Wyoming
- 2006** Barbara Moskal  
Colorado School of Mines
- 2007** Lynne Ipiña  
University of Wyoming
- 2008** Steven Janke  
Colorado College
- 2009** Richard Grassl  
University of Northern Colorado
- 2010** Eric Stade  
University of Colorado at Boulder
- 2011** Rich Bogdanovich  
Community College of Aurora
- 2012** Janet Nichols  
Colorado State University – Pueblo
- 2013** Marlow Anderson  
Colorado College
- 2014** Anne Dougherty  
University of Colorado at Boulder

## Chair's Report

Greetings Section Members!

I would like to open my first Section Chair report to express my gratitude to **Bill Cherowitzo** for his leadership of the section the past few years. I appreciate his guidance and also appreciate all the effort and time he has freely given the section. **Mike Brilleslyper** also deserves our gratitude for his service through his recent term as Governor, and many thanks to **Bill Briggs** for maintaining the section website for years. I am really looking forward to working with the section team: **Bill Cherowitzo**, **Erica Hastert**, **Heidi Keck**, and **Bill Emerson**. Of course, the section benefits from a lot of great supporters: **Linda Sundbye** for her tireless efforts on producing this newsletter; **George Heine** and **Janet Heine Barnett** for their work on books and for taking over maintenance of the section website; and it is only now that I realize the list of people to thank is a rather long one. Thank you to all for your contributions in time and talent to the benefit of our section!

The top priority I have this year is having a great section meeting. We are off to a great start by recruiting Colorado College to host the section meeting this year, which will be April 17-18, 2015. I have been in correspondence with our program chairs: **Marlow Anderson** and **Andrea Bruder** and they are constructing a truly wonderful section meeting. I encourage all readers of this newsletter to consider attending our next section meeting. The signature event for our section is the spring meeting and this gathering largely depends on attracting the mathematics community of our section to attend. This is a great place to see old friends and share ideas along with introducing our students to the profession. Please encourage your colleagues to attend and also consider giving a talk. Colorado College has always been a great venue for a conference and the fact that the MAA is celebrating its centennial next year is another reason the spring meeting is going to be special.

There are a couple of other section activities to mention. The section has a taskforce reviewing the section bylaws, which is a regular review mandated by the central MAA organization. This work will likely produce some

revisions to the bylaws for the section to consider next meeting. The section also has a taskforce looking at starting a teaching award for early career faculty, which will likely mirror the MAA Alder award. To learn more about what is going on please check out our new section website at <http://sections.maa.org/rockymt/> and of course the national website

<http://www.maa.org/>. It turns out the chair of the section has a term of two years and I would like to do as much as I can to bolster the activities of our section as much as possible. For me, the largest asset the MAA has to offer is the grassroots involvement opportunities that reside in the sections. I look forward to working with you and if you have any ideas on how we can foster growth in the section then please do not hesitate to contact me.

Respectfully Submitted,

**Kyle Riley, SDSMT**

**Chair, Rocky Mountain Section**

## **Governor's Report**

In terms of finances the MAA runs on a budget of around \$10 million per year. Interesting comparisons include the AMS at \$27 million, The American Physical Society with \$46 million and the American Chemical Society with \$500 million. Major sources of funds include Membership Fees (13%), Journals (20%), Books (16%), Federal Grants (15%), AMC (15%), Contributions (10%) and Meetings (6%). The Financial Report to the Board of Governors indicates that the MAA expects to be to be operating on a surplus by 2016 for the first time in a decade. The 2015 deficit is \$98,000.

The current membership of the MAA is about 12,000 members. This is a significant reduction from previous years. Part of the reason for the higher past membership numbers was a \$49 promotional membership for first-time members, and which was abused by some of the members. Other factors include cultural reasons, shrinking budgets and the recession. There will be a push for increasing our membership numbers over the coming years (something we can join in with at our institutions). I did not notice any sense of panic about the dropping numbers from the national officers, just an awareness that this will become a high priority within the organization.

The Committee on the Undergraduate Program in Mathematics is working on revising the Curriculum Guide, last published in 2004. Paul Zorn gave an informal report on the current progress but much of the document is in working form and is not released. From a brief look at the materials, it appears that the emphasis will be strongly on applications with an emphasis on working with other departments. I'm hoping to let you know more about this as more details become available.

Finally, there is an effort to revise the governance of the MAA by having a small committee of seven or nine members with more experience in finances, publishing, etc. playing the voting role of the current Board of Governors. The question of what the new role of the governors will be reflected in the change in the name of the committee working on this shift. The old name was the Committee on Governance and the new name is Committee on Governance and Communication.

Respectfully submitted,

**Bill Emerson, MSU Denver**

**Governor, Rocky Mountain Section**

## **19<sup>th</sup> Annual Colorado Mathematics Awards Ceremony/Reception**

The 19<sup>th</sup> annual Colorado Mathematics Awards (CMA) Reception/Ceremony was held on Tuesday, May 13 at the Grant-Humphreys Mansion in Denver. Organized by Dick Gibbs, Emeritus Professor of Mathematics at Fort Lewis College, and David Carlson of the Colorado Department of Agriculture (retired), this event recognized Colorado students and teachers from junior and senior high schools, and colleges and universities in Colorado for outstanding performances on six national mathematics competitions: MATHCOUNTS, the American Mathematics Contests 8, 10 and 12, 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 two competitions. **Dr. Anne Dougherty**, Associate Chair of the Department of Applied Mathematics at the University of



Colorado - Boulder, spoke to the gathering before awards were given. For many years, Dr. Dougherty has been involved with the many award-winning UC-B teams in the International Mathematical Contest in Modeling.

The Rocky Mountain Section of the MAA is an educational sponsor of the Colorado Mathematics Awards. Other MAA members on the CMA Steering Committee include **David Larue** (Mines) and **Lou Talman** (Metro). Special thanks to **Silva Chang** from Boulder for maintaining CMA information on her website: [cma.coloradomath.org](http://cma.coloradomath.org). Pictures of this year's event (and of prior years) can be found there.

Colorado students teams excelled in this year's International Mathematical Contest in Modeling. Of the 6,755 teams participating in this contest, only thirteen received the top "Outstanding" designation and twelve received the "Finalist" designation. Eleven teams from five Colorado colleges and universities participated. A team from Colorado College was one of the Finalist winners! Members of the CC team, coached by **Prof. Amelia Taylor**, were **Melissa Jay**, **Vankatasai Ganesh Karapakula**, and **Emma Krakoff**.

There were two Colorado students among the top 500 winners of the William Lowell Putnam Mathematical Competition, both from UC-Colorado Springs. **Allan Gardner** was the top scoring student and **Katrina Eidolon** was the next high scoring student. Their coach was **Prof. Radu Cascaval**.

Also recognized at the ceremony was Prof. **Anne Dougherty** from UC-B as the recipient of the 2014 Burton W. Jones Distinguished Teaching Award.

Special thanks to the CMA Steering Committee for identifying and recognizing these outstanding young mathematicians and faculty. And thanks to the MAA Rocky Mountain Section for supporting the Colorado Mathematics Awards these many years.

Plans are already under way for the 20<sup>th</sup> Colorado Mathematics Awards Reception/ Ceremony to be held again at the Grant-Humphreys Mansion on Tuesday, May 12, 2015.

**Dick Gibbs**  
**Emeritus Professor of Mathematics**  
**Fort Lewis College**

**12<sup>th</sup> Annual PPRUMC**  
**United States Air Force Academy**  
**Saturday, February 21, 2015**

Please mark your calendars for the next Pikes Peak Regional Undergraduate Mathematics Conference! This year's conference is on **Saturday, February 21, 2015 at the United States Air Force Academy**. (To comply with security requirements at the Air Force Academy, *pre-registration will be required* for all who attend the conference, both students and faculty.)

The focus of this one-day conference is to give undergraduate mathematics students an opportunity to present their work in a professional, supportive setting. It is also an occasion for students to become acquainted with other students from the region, and to learn more about the mathematics profession. There are no registration fees, lunch will be provided, and some financial reimbursement for student travel expenses will be available. A free pre-conference social event is planned for Friday evening prior to Saturday's full-day conference.

Please begin now to encourage your students both to attend and to make a presentation. Presentation topics could include the results of classroom or independent study, as well as REU or other research projects. Both research and expository topics are welcome. The deadline for submitting an abstract will be in early February.

Further details and registration information will be available later this fall through a conference website. If you would like to be on the email distribution list for this conference, please email **Beth Schaubroeck** at [beth.schaubroeck@usafa.edu](mailto:beth.schaubroeck@usafa.edu) or **Ian Pierce** at [ian.pierce@usafa.edu](mailto:ian.pierce@usafa.edu).

*Funding for the PPRUMC is provided by NSF grant DMS-0846477 through the MAA Regional Undergraduate Mathematics Conference Program, [www.maa.org/RUMC](http://www.maa.org/RUMC)*

## Section News

### Colorado School of Mines

Professor **Willy Hereman** continues as Head of the Department of Applied Mathematics and Statistics. Professor **Barbara Moskal** (Director of the Trefny Institute for Educational Innovation) continues as liaison with the MAA.

This fall, the department welcomes one new faculty member which brings the department to a total of 22 faculty members.



**Dr. Aaron Porter** joined the department as an Assistant Professor. He received his B.S. in Mathematics from Purdue University, an M.S. in Statistics from Michigan State University, and a Ph.D. in Biostatistics from the University of Iowa. After completing his doctorate, Aaron held a two year postdoctoral fellowship in the University of Missouri Department Of Statistics.

Aaron's research interests focus on the Bayesian hierarchical modeling framework, and he has primarily focused on research that is spatial and spatio-temporal in nature. His emphases are on geostatistical and lattice data, with applications to infectious disease modeling, small area estimation, big data, and environmental data.



Professor **Paul Martin** was awarded the CSM Dean's Excellence Award for demonstrated meritorious achievement in teaching and scholarship at the Colorado School of Mines and was recognized for his public service by Governor John Hickenlooper.



Teaching Professor **Scott Strong** received the CMS Outstanding Faculty Award.

In May 2014, the Outstanding Graduating Senior Award was awarded to **Andrew Cook**, who also received the Ryan Sayers Memorial Award. He will be a 2014 Woodrow Wilson Indiana Teaching Fellow as part of the Woodrow Wilson National Fellowship Foundation. The Professor Everett Award was awarded to **Anastasia Shpurik**.

Also in May 2014, **Jason Gates** (Computational and Applied Mathematics specialty) received the departmental Graduate Student Teaching Award. **Eric Jones** was awarded the Ryan Sayers Memorial Scholarship for AY 2014-15.



The 2014 Maurice Ewing Medal, the highest honor of the Society of Exploration Geophysicists, will be awarded to Professor **Norman Bleistein** at the 84th Annual Meeting to be held in Denver in October 2014. Norman is University Emeritus Professor of the Department of Mathematical and Computer Sciences, Research Professor of Geophysics, and former Director of the Center for Wave Phenomena. The Maurice Ewing Medal is awarded from time to time to a person who is deserving of special recognition through having made major contributions to the advancement of the science and profession of exploration geophysics.

## **Metropolitan State University of Denver**

**Mona Mocanasu** and **Clark Dollard** were both tenured and promoted to Associate Professor this past spring.

Welcome to our new hires: **Shelley Rohde** in applied mathematics and **Amanda Schaeffer-Fry** in theoretical mathematics. Shelley received her PhD from the University of California, Merced working in the area of biomedical photonics. Amanda received her PhD from the University of Arizona and came to us from a postdoc position at Michigan State. Her area of research is in group theory.

## **Regis College**

On the faculty front, Dr. **James Seibert** received a promotion to Full Professor. Dr. **Tim Trenary** left for and returned from his first sabbatical and took up the role of department chair. While on sabbatical, Dr. Trenary performed research on measuring the area of cushion plants via image analysis, which he then presented at the ESA conference over the summer. Dr. **Megan Patnott's** paper "The h-vectors of arithmetically Gorenstein set of points on a general sextic surface in  $P^3$ " was accepted for publication by the Journal of Algebra and appeared in April. Dr. Patnott attended the JMM as well as Project NExT and MathFest as a silver 13 dot. Dr. **Bethany Springer's** joint paper "A Point of Tangency between Combinatorics and Differential Geometry" with Francis Motta and Patrick Shipman was accepted for publication by the American Mathematical Monthly. Dr. Springer was accepted into Project NExT as a gold 14 dot and attended MathFest as well as the Pingree Park Dynamics Workshop.

As for our students, **Mayra Coronado** participated in an REU at Arizona State, leading to a poster which she has presented and will present again at SACNAS this semester. **McKenna Mettling** graduated and was awarded a GTA at University of Lincoln Nebraska in Statistics. Miss Mettling presented a poster at the Pikes Peak Regional Undergraduate Mathematics Conference, which was also attended by eight other Regis students. **Kathryn Hardy** very successfully completed an internship with Wells Fargo over the summer. Ten Regis students sat the Putnam Exam, and four of those students

scored a 10 (**Jessica Zanetell**, **Daniel Magill**, **Jeffrey Stroud**, and **Samuel Cronk**)! Four students attended the Nebraska Conference for Undergraduate Women in Mathematics.

## **South Dakota School of Mines and Technology**

The SDSM&T Math and Computer Science department grew with the addition of **Matt Leonard**, a new Instructor moved from the University of Wyoming who is now keeping busy with Calculus I and II. The department also congratulates **Travis Kowalski**, who was honored with the Bernard Ennenga Award, which is an annual campus award given to one faculty member to recognize excellence in teaching. Finally, we give tip of our collective hats to **Kyle Riley**, who begins his term as the Chair of the Section. Congratulations to all!

## **University of Northern Colorado**

We are very pleased to announce two new hires for this academic year. **Spencer Bagley** is a visiting assistant professor of mathematics education. He received his Ph.D. in mathematics education from San Diego State University and UC San Diego and his research interests primarily lie in undergraduate mathematics education. **Dean Zeller** has been hired as a lecturer in computer science. He has an M.S. in computer science from Bowling Green State University. We are also pleased to report that **Hortensia Soto-Johnson** was promoted to professor.

## **University of Denver**

Things have been very busy in the math department at DU. Last winter the department moved out of its long-time home, John Greene Hall, which has been demolished to make way for a new engineering building. The department hopes to be in its permanent home by the fall of 2016. Over the summer department members were involved in three different conferences. First, the University of Denver Sesquicentennial Conference on Infinitary Ramsey Theory took place from May 24-28, 2014, under the guidance of **Natasha Dobrinen**. The Pingree Park Dynamical Systems School, July 13-18, 2014, took place in the picturesque mountains where attendees addressed research areas of ergodic theory and topological dynamics. Primary contacts for this were **Nic Ormes** and **Ronnie Pavlov**. DU hosted some of the Rocky Mountain

- Great Plains Graduate Research Workshop in Combinatorics from July 27 - August 9, 2014 as well. **Paul Horn** oversaw DU's participation in this event. As far as upcoming conferences, DU plans to host the West Coast Operator Algebra Seminar 2014 on November 1-2, 2014. **Frederic Latremoliere** is organizing this event, which focuses on functional analysis and operator algebras. The department is welcoming two new lecturers this year, **John Griesmer** (Ohio State) and **Kelly Flaherty** (Kansas), and a third post-doc, **Izabella Stuhl** (University of Debrecen). Dr. **Andrew Linshaw** received a Simons Collaboration grant for Mathematics in May 2014. Finally, the department was also very pleased to receive an endowment this year that will benefit graduate student research immediately and in the future through the John G. Daly Endowment.

**Is news from your school missing?**

Send your news to your department liaison now with a request to forward it to the Linda Sundbye, Newsletter Editor for inclusion in the next issue. [sundbyel@msudenver.edu](mailto:sundbyel@msudenver.edu)

**Colorado School of Mines and Denver Public Schools STEM Collaboration**

Colorado School of Mines and Denver Public Schools (DPS) have partnered to strengthen science, technology, engineering and mathematics (STEM) education programs for students in K-12. DPS educators at eight high schools alongside Mines graduate students helped DPS students gain experience in a variety of STEM-related fields, as well as prepare for the challenges of college and a career.

DPS and Mines currently partner on STEM education at four other elementary and middle schools in the district, and this new initiative will complete the K-12 pipeline between the two organizations.

"We have known for a long time that positively impacting STEM education requires support throughout the entire K-12 pipeline," said **Barbara Moskal**, professor of applied mathematics and statistics and director of the

Colorado School of Mines Trefny Institute of Educational Innovation. "We now have this opportunity, at every level of K-12 learning, in collaboration with DPS. We anticipate great accomplishments for these kids."

DPS recently received \$7 million in federal Youth CareerConnect grant funds and \$2.3 million in philanthropic funding to expand access to STEM education programming. Over the next two years, DPS will create new STEM programming at eight high schools that will focus on the following industries: engineering, health and medicine, digital careers, finance, information technology, energy and manufacturing.

The eight high schools that will gain expanded programs via the Youth CareerConnect grant are:

- Abraham Lincoln High School
- CEC Middle College
- East High School
- Martin Luther King, Jr. Early College
- George Washington High School
- West Career Academy
- High Tech Early College
- John F. Kennedy High School

"There is tremendous growth and expansion in STEM-focused careers, and we want to ensure our students have the education and experience to pursue careers in those fields if they choose," said **Susana Cordova**, DPS chief schools officer. "We're excited to launch this new partnership with Mines and look forward to the opportunities it will create for our students."

The Youth CareerConnect grant will also expand programs that provide opportunities for students to participate in paid internships or job-shadow opportunities. It will also help complete their capstone projects that demonstrates how they applied the skills and knowledge learned in the classroom to their workplace-based learning experiences.

By 2018, DPS anticipates an increase in the number of students graduating high school and accepted to college and university programs with a STEM focus, including at the Colorado School of Mines.

**About the Trefny Institute for Educational Innovation**

The Trefny Institute is a catalyst for STEM educational research and improvement at all levels. The institute's goal is to prepare, recruit and educate students who can assume scientific and engineering leadership positions in industry, government and academia. The institute supports Mines faculty in their teaching and research efforts, develops and extends outreach programs to students and teachers at schools within the Denver area, as well as provides distance learning opportunities for Colorado schools outside the Denver area.

**For more information, contact:**

**Karen Gilbert**, Colorado School of Mines  
[kgilbert@mines.edu](mailto:kgilbert@mines.edu)

**Kristy Armstrong**, Denver Public Schools  
[Kristy\\_armstrong@dpsk12.org](mailto:Kristy_armstrong@dpsk12.org)

## Section Nominating Committee Report

The nominating committee is seeking strong leaders with a desire to serve the MAA to run for chair-elect of the Rocky Mountain Section. The position of section chair is vital to the organization and operation of the Rocky Mountain Section. The chair-elect serves in that capacity for one year before assuming a two-year role as chair, followed by a one-year term as past-chair. The section chair serves on the Executive Committee of the section and is an ex-officio member of all section committees. Most importantly, the chair provides leadership for the section and consistently seeks ways to enhance the mission of the MAA within the region.

If you are interested in running for chair-elect or if you know someone that would be an outstanding candidate, please contact any member of the nominating committee:

- Mike Brilleslyper (USFA)  
[mike.brilleslyper@usafa.edu](mailto:mike.brilleslyper@usafa.edu)
- Jeff Berg (Arapahoe CC)  
[jeff.berg@arapahoe.edu](mailto:jeff.berg@arapahoe.edu)
- Gerrald Greivel (Colorado School of Mines)  
[ggreivel@mines.edu](mailto:ggreivel@mines.edu)

Elections will be held during the business meeting at the MAA Rocky Mountain Section annual meeting to be held at Colorado College, April 17-18, 2015. Note: Elected officers of the section must be members of the MAA.

## Colorado Council of Teachers of Mathematics (CCTM) News

The 2014 Annual Conference of Colorado Council of Teachers of Mathematics (CCTM) will be held at the Denver Merchandise Mart, on September 25-26, 2014. The theme of this year's conference is *Toward Greater Focus and Coherence*. This year's keynote speaker is Professor **Jo Boaler** from Stanford University. **Diane Briars**, President of NCTM will also join us and facilitate sessions. The conference will start with pre-sessions for school and districts' leaders and in-service teachers on Thursday, September 25, 2014. The topic of the pre-session for school and district leaders will be "High Leverage Leadership Actions That Support Teachers' and Students' Success in the Common" and the teacher pre-session will focus on "Putting the Pieces Together: Creating a Math Class for Learning." The conference sessions will start on Friday morning at 8am and will continue until 4:15pm. For full conference program and registration information visit the CCTM website: <http://www.cctmath.org>.

Also, the Colorado Mathematics Teacher (CMT) Journal is now available to everyone at <http://cctmath.org/page/members/cmt-journal/home.htm>.

**Gulden Karakok, UNC**  
**CCTM Representative**

**Colorado College  
to Host the  
100<sup>th</sup> Anniversary  
Rocky Mountain Section Meeting  
April 17 - 18, 2015**

Colorado College is pleased to host the 2015 Rocky Mountain Section Meeting of the Mathematical Association of America. The meeting will take place April 17 and 18 on the campus of Colorado College in Colorado Springs. The conference marks the hundredth anniversary of our section and our organization. It is appropriate to hold the hundredth anniversary meeting at Colorado College, because the eminent historian of mathematics **Florian Cajori** was a faculty member at CC one hundred years ago, and he was instrumental in the original formation of the Mathematical Association of America. The meeting will feature a brief ceremony where a classroom in Palmer Hall will be named after Dr. Cajori; the CC mathematics department was housed for many years in Palmer Hall.

The meeting features three plenary speakers: **William Dunham** (George Polya Lecture), **Karen Saxe** (our Section Visitor from the national leadership, who will give the banquet talk), and **Anne Dougherty** (the 2014 Burton W. Jones Teaching Award winner).

The conference will include contributed paper sessions on both Friday afternoon and Saturday morning. We encourage expository and research talks about mathematics, talks about mathematical history, and talks about curriculum and pedagogy. We especially welcome talks by students, both undergraduate and graduate. Please register and submit your abstracts on the conference website. For full consideration, talk titles and abstracts should be submitted by March 31, 2015.

We are currently inviting proposals for organizing parallel sessions and/or panel discussion topics in all areas of Mathematics. A typical session will consist of 4-9 talks of 20-25 minutes each. If you are interested, please submit session and panel discussion topic proposals to **Andrea Bruder** at [Andrea.Bruder@coloradocollege.edu](mailto:Andrea.Bruder@coloradocollege.edu).

There will also be a pre-meeting workshop on Friday morning, led by Dr. **David Brown** of Colorado College. The workshop will demonstrate ways to incorporate the fitting of models to data in courses across the undergraduate mathematics curriculum.

Friday will feature a luncheon for chairs and departmental liaisons, hosted by Dr. **Kyle Riley**, the current Chair of the section. We encourage as many institutions as possible to send a representative to this lunch.

In addition, the meeting will feature a Friday Lunchtime Student Social Event. We encourage all students attending the meeting to join us for lunch and games! Late arrivals are welcomed – join us as your travel plans permit. Pizza, soda, and cookies provided.

If you have any questions about the meeting, please contact **Marlow Anderson** at [MAAnderson@coloradocollege.edu](mailto:MAAnderson@coloradocollege.edu).

Please see the conference website <http://www.coloradocollege.edu/other/maa/> for details. You may register and submit abstracts for talks there.

## Student Activities

Students and Advisors: Attending the section meeting is a great way to meet students from other schools (including at free student lunch on the first day of the conference), attend talks where you may learn some new and interesting mathematics, and even present the results of your own research! Start thinking now about a presentation topic for the April 2015 conference.

Feel free to contact Beth ([beth.schaubroeck@usafa.edu](mailto:beth.schaubroeck@usafa.edu)) or Carl ([lienert\\_c@fortlewis.edu](mailto:lienert_c@fortlewis.edu)) with any questions.

## 2014 Section Meeting Report

The 2014 meeting of the Rocky Mountain Section of the MAA was held on the campus of the University of Wyoming March 28-29 in Laramie, Wyoming.

The meeting opened with a keynote presentation from the 2013 Burton W. Jones Distinguished Teaching Award recipient, **Marlow Anderson** (Colorado College), entitled "*Cycloid Wars: A Case Study in 17<sup>th</sup> Century Mathematics.*"

The meeting also featured a keynote address, entitled "*Pancake Sorting, Prefix Reversals, and DNA Rearrangements,*" and a banquet talk, entitled "*Geometreks,*" by **Ivars Peterson**, Director of Publications at the MAA.

The meeting was held in a wonderful new conference center on campus and special thanks goes to all the students, faculty, and staff that helped with this event. Below is a listing of the contributed talks available at the meeting website.

## Contributed Papers - 2014 Section Meeting

### Mathematical Biology

**Grant Bowman**, University of Wyoming

*Using Mathematical Models to Design Enzyme Micro-Compartments for Bioengineering Applications*

**Michael Dillon**, University of Wyoming

*Spatiotemporal Distributions of Migratory Birds: Patch Models with Delay*

**Martha Garlick**, South Dakota School of Mines and Technology

*Connecting the Local Movement of Mule Deer with Regional Spread of Chronic Wasting Disease*

**Rongson Liu**, University of Wyoming

*Spatiotemporal Distributions of Migratory Birds: Patchy Models with Delay part 2*

### Mathematics History I

**Donald Teets**, South Dakota School of Mines and Technology

*Comet ISON and Why Didn't Newton Use Newton's Method*

**George Heine**, retired, Math and Maps,

*How Euler Solve a Problem Whose Solution Was Obvious (or was it?) – A Partial Prehistory of the Calculus of Variations*

**Mike Siddoway**, Colorado College

*A Generalization of Gauss' Lemma to Arbitrary Domains*

**Olalekam Idowu**, University of Wyoming

*African Contributions to Mathematics*

### Street Mathematics

**Roger Johnson**, South Dakota School of Mines and Technology

*Victory in the Card Game 'War'*

**Myron Allen**, University of Wyoming

*The Case for Dimensional Analysis*

**Mary Worthley**, **Gene Gloeckner**, and **Katherine Gloeckner**, Colorado State University

*The Calculus Tapes*

**Ken Gerow**, University of Wyoming

*What should be your response to a positive medical (e.g. cancer) test result?*



## **Calculus Teaching**

**Gerry Harnett**, StMA

*Log Revamp*

**Ricardo Diaz**, University of Northern Colorado

*DNA's Shadow: The Geometry of X-Ray Diffraction of Curves and Surfaces*

**Christopher Cody**, South Dakota School of Mines and Technology

*Jet-Determinacy of Solutions to a Mixed Composition Equation: A Taylor Series Approach*

**Travis Kowalski**, South Dakota School of Mines and Technology

*Assessment as Learning: An Experiment with Abilities-Based Grading*

**Beth Schaubroeck**, United States Air Force Academy

*College Algebra – Stand alone or Integrated into Calculus?*

**Michelle Ghrist**, United States Air Force Academy

*Creating Projects that Help Students Apply and Synthesize Mathematics*

**Kyle Riley**, South Dakota School of Mines and Technology

*Redesign of Calculus II*

## **Mathematics History II**

**Jeff V. Berg**, Arapahoe Community College

*A Stroll Down Memory Lane-MAA RMS the Last Thirty Years*

**Bruce N. Lundberg**, Colorado State University - Pueblo

*Learning from Late Antique Academy in Alexandria*

**Janet Barnett**, Colorado State University - Pueblo

*What so Natural about  $1/x$ ? A Brief History of Logarithms for the Classroom*

**Shahar Boneh**, Metropolitan State University of Denver

*Probability Person of the Week*

**Dan Swenson**, Black Hills State University

*An Introduction to Church's Lambda Calculus*

**Mike Siddoway**, Colorado College

*A Wind Erosion Equation*

## **Graduate Student Session**

**Erica Daniels**, South Dakota School of Mines and Technology

*Survival Analysis of the Hunger Games*

**Philip DeOrsey**, University of Colorado Denver

*When Worlds Collide: Another Battle of Algebra versus Geometry*

**Melody Dodd**, Colorado State University

*Real-time Electrical Impedance Tomography Imaging with a Fast D-Bar Algorithm*

**Soofia Malik**, University of Wyoming

*Exploration and Assessment of Middle Eastern Students' Mathematics Anxiety: A Mixed Methods*

## **Matrices**

**Colin Garnett**, Black Hills State University

*Integrally, Normalizable Matrices and Zero-nonzero Patterns*

**John Ethier**, Metropolitan State University of Denver

*New Forms of Orthogonality for Latin Hypercubes*

**Gulden Karakok**, University of Northern Colorado

*Student Difficulties in Introductory Linear Algebra Course*

## **Learning**

**Shashidhar Belbase, Wandee Kasemsukpipat**, University of Wyoming

*One Dollar: A Million Dollar Mathematics*

**Gerald Greivel**, Colorado School of Mines

*Active Learning Strategies to Improve Student Attitudes and Outcomes in Statistics: The Studio Model at the Colorado School of Mines*

**Megan Candelaria**, University of Wyoming

*Helping Students Understand Transformations: Motivating the Need for Reference Information*

**Lee Roberson**, University of Northern Colorado

*Sharing Our Mathematics Culture*

**Jamalee Stone and Jill Trimble**, Black Hills State University

*Connecting Undergraduate Mathematics to Middle and Secondary Mathematics Teaching*

# **2014 Business Meeting Minutes**

## **Saturday, March 30, 2014**

**Minutes:** MAA Rocky Mountain Section Annual Business Meeting  
**Date:** Saturday, March 30, 2014 at 8:00 am – 8:50 am  
**Location:** University of Wyoming Conference Center

1. Bill Cherowitzo called the meeting to order and the minutes from last year were approved.
2. Reports
  - a) Jeff Berg reported that there were three nominees for Section Governor, the actual election was conducted electronically by the national office, and the Bill Emerson was elected. There were two nominees for Vice Chair, Erica Hastert and Carol Kuper. This position must be filled by a two-year college person. Carol told the members that she is a long time member of the MAA and happy to serve in this role. Erica cited her work history and connections. She also stated a need to bring in more two-year college people. There was only one nominee for secretary treasurer, Heidi Keck. She thanked the members for the opportunity to serve again.
  - b) Heidi Keck reported nearly \$15,000 in reserve for the section. There were questions on the Activity Awards this year—only one was awarded to PPRUMC, and the Colorado Math Awards—which were funded at \$250 again this year.
  - c) Erica Hastert read a short report from Dick Gibbs on the Colorado Math Awards. Many of the competitions had not occurred yet this year.
  - d) Bill Cherowitzo summarized the executive committee meeting. He explained that required By-Law review process that we must do this year. Tensia Soto-Johnson added that the National office is very involved in this process and in fact has veto authority. She also suggested that a draft be circulated to the membership before it is sent to National for review. Bill reported on the decision to fund student activities at the section meeting to promote student involvement, the decision to not participate in the centennial T-shirt contest. Bill also led a discussion on increasing membership in MAA and the section. Ideas on outreach to two-year college faculty, benefits of membership, and differential dues were offered.
  - e) Beth Schaubroeck reported on the student activity lunch with games. Overall there were fewer students at the meeting this year. Beth asked for ideas on other potential activities, possibly Jeopardy. It was noted that attendance in general was down at this meeting and that we conflicted with spring break for many students.
  - f) Ivars Peterson gave the report from National. He encouraged people to check the web site for the latest updates on the centennial celebration at MathFest in 2015. April is math awareness month, with theme “Math Magic and Mystery.” He also pointed out that as a member benefit National is considering adding access to some e-books as well as journal. HE encouraged people to look at Edfinity, a database of textbook problems and all AMC problems. Instructors can use it to build problem sets. They can also get practice AMC for \$10/student. Finally he reminded people that the National office has 125 committees that need staffing. People can nominate themselves or others for these positions.
  - g) Mike Brilleslyper gave the Governors report.
3. Announcements and Information Items
  - a) Kyle Riley announced that Anne Dougherty from University of Colorado is the 2014 Distinguished Teaching Award Recipient
  - b) Gulden Karakok gave the dates for the CCTM meeting as September 25 & 26, 2014. .She encouraged people to get preservice teachers involved. There will be PARCC assessment training available. She also reminded members that her term is ending this year and someone else will need to take over.

- c) The newsletter deadline is September 15
  - d) Upcoming meetings
  - e) Colorado College April 17 & 18, 2015
  - f) Colorado Mesa University April 8 & 9, 2016
  - g) PPRUMC will be at Air Force Academy in 2015
  - h) MathFest will be in Denver in 2018
  - i) Jeff Berg announced that Erica Hastert was elected Vice Chair and Heidi Keck was reelected secretary treasurer. Bill Cherowitzo reminded people that next year we are looking for a Chair Elect. Please talk to Kyle Riley if you are interested in the position or have ideas.
  - j) Other
4. Discussion Items
- a) Junior Faculty Teaching Award. Bill Cherowitzo explained the problem of two distinct types of people nominated for the DTA, early career rising star versus lifetime of work. Could we create and award modeled after the Alder award to target the early career people? A motion was made to task the DTA committee with developing criteria for the award to begin this year. Discussion followed on the frequency of the award and consensus was reached that an award would not need to be awarded every year. The motion passed unanimously.
  - b) New Web Site. George Heine showed a preview of the new web site. Tensia reminded him that there are national guidelines that should be followed. George asked all to look at the pages and suggest content and/or changes.
  - c) Executive Committee Travel Funds. Bill Cherowitzo explained the discussion from the executive meeting about the shortage of institutional travel funds, the importance of a face-to-face meeting for the committee, and the ad hoc solutions we had found the past two meetings. He asked for guidance from the membership. Discussion ensued on potential abuses, by-laws, money from national, procedures in other sections. Finally there was consensus that as long as our reserves are healthy the executive committee was trusted to handle this on a case-by-case basis and no change should be made to the by-laws.
5. A motion was made to thank our hosts University of Wyoming and to thank the outgoing officers Bill Cherowitzo and Mike Brilleslyper.
6. Meeting adjourned at 9:05.

Respectfully submitted,

**Heidi Keck, Western State Colorado University**  
**Secretary/Treasurer of the MAA Rocky Mountain Section**

# **2014 Executive Committee Meeting Minutes**

## **Thursday, March 27, 2014**

**Minutes:** MAA Rocky Mountain Section Executive Committee Meeting  
**Date & Time:** Thursday, March 27, 2014 7:30—10:15 pm  
**Location:** Lynne Ipina home; 460 N 9th Street, Laramie  
**Attendance:** Lynne Ipina, Rong Song Liu, Chris Sloan, Leslie Roan, Ivars Peterson, Kyle Riley, Erica Hastert, Bill Emerson, Bill Cherowitzo, Heidi Keck

1. Bill Cherowitzo called the meeting to order and asked for introductions. Minutes of the 2013 executive committee were approved; motion made by Kyle and seconded by Lynne.
2. Bill Cherowitzo led a discussion of the meeting flow. Lynne explained that the opening remarks would be given by the Dean of Arts and Sciences, Dr. Paula Lutz, who would also attend the heads luncheon. Bill C volunteered to introduce the DTA speaker and give a general description of parallel sessions. Ivars's talk at 4pm was added to the list of speakers. Leslie explained the banquet procedure. It was decided that the program should begin about 7pm. Kyle would announce the DTA award, Heidi would give membership certificates, and Bill C would introduce the keynote speaker. Bill C suggested an actual closing to the meeting. There was debate about the attendance. A decision was made to have a final 15 minute closing ceremony to transfer the banner to Colorado College for next year's meeting.
3. Reports:
  - a. Program Chair: Leslie reported these preregistration numbers 98 participants, 68 banquet tickets, and 29 talks. Paypal was used for registration funds and requires a 2.63% fee. Bill C asked about graduate student speakers. No department chairs responded to recommend speakers. A suggestion was made to contact graduate directors rather than department chairs. This was unanimously agreed to be better and will be changed in the secretary duty list.
  - b. Financial Report: The section is in healthy financial shape. Recommendations were discussed to spend down the reserve (currently at \$10,000). Meeting costs were also discussed and a point was made to insure that potential program chairs should check on cost of room usage, as it is becoming more common.
  - c. Nominating Committee: A chair elect will be needed in 2015. Bill E suggested that former DTA winners could be tapped for recommendation as they are well connected people in the section.
  - d. Awards Committee: Kyle reported that the Distinguished Teaching Award selection for 2014 is Anne Dougherty. There were good nominees, although the roll-over caused a few problems with people who had left the section or retired. The rubric developed in recent years worked well.
4. Discussion and Action Items
  - a. Bylaws: Ivars explained the process for reviewing the bylaws includes a  draft of the new bylaws to the national office by December for pre-approval. The bylaws then go to the membership at a section meeting for final approval. Bill C suggested a 3-person ad hoc committee to review our bylaws. Volunteers are Mike Brilleslyper, Bill Cherowitzo, and Erika Hastert.
  - b. Junior Faculty Award for Teaching: Last year during the DTA discussion the possibility of an award for junior faculty was raised. Ivars asked about the status of our section NExT. Concern was expressed the NExT can be seen as elitist, and the award should look further. Bill C asked that this be brought up at the business meeting. Heidi was tasked

with looking at the national Alder Award criteria to see if our existing DTA paperwork could serve both purposes.

- c. Tee Shirt design: Bill C explained the contest to get the most section tee shirts at 2015 MathFest. Ivars explained various ideas related to the centennial celebration. Kyle made a motion to abstain from the contest and Bill E seconded. Discussion about past tee shirt contests followed and all agreed to not create another.
- d. Budget for student activities: The statement: **The executive committee agreed that the director of student activities be allocated \$200 per year to spend to further the goal of increasing student participation in Rocky Mountain Section activities.** was suggested for the bylaws. Kyle made a motion to add the statement, Bill C seconded, and it was approved unanimously.
- e. Colorado Math Awards. Bill C made a motion to spend \$250 on the awards, Kyle seconded, all approved.
- f. Student door prizes: Kyle made a motion to spend \$100 on MAA books for student door prizes. Lynne seconded. Ivars suggested that editors at the MAA often have surplus books that they give away if asked. All approved the motion and agreed to pass on the information about free books.
- g. Executive Committee Hardship Travel: Bill C spoke on the essential nature of the one in person meeting each year. There is less money available from the national office and the section must do something to help when an institution cannot pay. We need long range plans for emergencies. He also emphasized that this should be privately funded and be only a *supplement* to institutional support. A discussion of current support for officers to attend national meetings and potential mechanisms for such a fund followed. Finally Kyle proposed that we add this to the general business meeting agenda.
- h. Connections with community college faculty: Bill C believes this is an untapped resource in our section. Erika reported that CC faculty often have limited travel funds. She also suggested that "Transfer Level" instructors are the appropriate audience. Discussion about how to reach out to this group. Ivars asked about connections with AMATYC and suggested Linda Braddy at national is the person to talk to about joint work with AMATYC. There was further discussion about getting people to attend a meeting versus actually joining the organization.
- i. National Meetings: Bill E will attend MathFest and Kyle will attend the Joint Meetings.

## **MAA Rocky Mountain Section Suggestions for Speakers**

The Rocky Mountain Section would like to offer the following suggestions, especially to first-time speakers, regarding preparation of a talk at the conference.

1. The standard talk length is 20 minutes, (with longer times available upon request, subject to the limitations of the program). Thus, you should prepare your presentation to fit the time allotted. If possible, plan to leave a few minutes at the end of your presentation for questions.
2. A moderator will be assigned to facilitate each session of presentations. The moderator will introduce the speaker, assist in distribution of any handouts, signal the end of the presentation, and ask for questions from the audience.
3. If handouts are to be provided, give them to the moderator prior to the beginning of the session including your talk. Plan to bring about 35 handouts and be prepared to give attendees your e-mail address in case the supply runs out. It may also be possible to arrange for posting of electronic materials from your talk on the section website. Check with program organizers concerning this possibility.
4. Do not include too much detailed technical material in your presentation. Focus on providing the audience with insight into your topic and its key notions. Remember that most members of the audience will not be experts in the field you are discussing, and that the audience is likely to include students.
5. All session rooms will be equipped with a projector and a laptop hook up. Accordingly, you can present your talk using Power Point slides, PDF, or similar, which will greatly enhance the pace of a presentation. However, make sure that notes on the slides or transparencies are typed in a font big enough and with spacing adequate to be seen clearly 50 to 100 feet away.

## **Grants Available**

### **Section Activity Grants Available**

The purpose of the Section Activity Grants program is to assist Section members in funding projects in support of Section Mission. These projects must be clearly tied to one or more of the Rocky Mountain Section Mission Goals and the project director must be a member of MAA. Grants will not exceed \$750 per project. Matching funds from host institution are preferred, but not required. To apply for a Section Activity Grant, submit the following to the Section Secretary/Treasurer:

- (a) Description of project (no more than one page);
- (b) Statement of how project supports Mission Goals (no more than one page);
- (c) Estimated budget;
- (d) Description of matching funds available, if any;
- (e) Vitae of project director(s).

If funded, a report on the project will be filed by the Project Director upon completion (no more than one page) and a report will be made at the next meeting of the Section. Complete details on the selection process and application guidelines are posted on the section website. Grants will be reviewed once a year. All application materials are due November 1<sup>st</sup> of each year.

### **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.



## 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  $e^{i\pi} + 1 = 0$  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  $\pi$ ; 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

Joint Mathematics Meetings; San Antonio, TX  
January 10-13, 2015

**PPRUMC; USAFA; February 21, 2015**

ICTCM; Las Vegas, NV

March 12-15, 2015

NCTM annual meeting; Boston, MA

April 15-18, 2015

**MAA Rocky Mountain Section Meeting;  
Colorado Colorado College**

**Colorado Springs, CO, April 17-18, 2015**

MAA 100<sup>th</sup> Anniversary MathFest,

Washington, DC; August 5-8, 2015

Joint Mathematics Meetings; Seattle, WA

January 6-9, 2016

NCTM annual meeting; San Francisco, CA

April 13-16, 2016

MAA Rocky Mountain Section Meeting;

Colorado Mesa University

Grand Junction, April 8-9, 2016

Joint meeting with the Intermountain Section

MAA MathFest; Columbus, OH;

August 3-6, 2016

Joint Mathematics Meetings; Atlanta, GA

January 4-7, 2017

NCTM annual meeting; San Antonio, TX

April 5-8, 2017

MAA MathFest; Chicago, IL; July 26-29, 2017

Joint Mathematics Meetings; San Diego, CA

January 10-13, 2018

NCTM annual meeting; Washington DC

April 25-28, 2018

MAA MathFest; Denver, CO; August 1-4, 2018

Joint Mathematics Meetings; Baltimore, MD

January 16-19, 2019

MAA MathFest; Cincinnati, OH;

July 31-August 3, 2019

**The Rocky Mountain Section of  
The Mathematical Association of America**

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

**Burton W. Jones Award 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)? \_\_\_\_\_

On a separate page, briefly describe the unusual or extraordinary 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 forms should reach Section Secretary by December 15 of each year.  
Complete nomination materials should reach Section Secretary by January 15 of each year.

Section Secretary: Heidi Keck, hkeck@western.edu  
Western State Colorado University; Hurst Hall; Gunnison, CO 81231.

Please consult the Section webpage (<http://sections.maa.org/rockymt>) for complete guidelines.

## Voluntary Section Dues

Many thanks to those members who have made a voluntary dues contribution to the section along with their 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: Heidi Keck, MAA Rocky Mountain Section Treasurer/Secretary: Western State Colorado University, Hurst Hall; Gunnison, CO 81231

## **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.