



Spring 2023 Newsletter

Section Website: https://www.rockymountain.maa.org/

Note: The 2023 Rocky Mountain Section Meeting April 21-22, 2023 Host: Black Hills State University

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2022 - 2023 Section Officers and Committee Members

Section Website https://www.rockymountain.maa.org/governance/officers

Current term of service in parentheses; The Chair serves for 4 years – one as Chair Elect, two as Chair, one as Past Chair; All other positions are 1-year terms unless otherwise noted.

Section Executive Committee Officers for 2022 – 2023

Chair (2022-2024)	Gulden Karakok University of Northern Colorado Greeley, CO 80639	gulden.karakok@unco.edu 970-351-2215
Past Chair (2022-2023)	Dan Swenson Black Hills State University Spearfish, SD 57799	Daniel.Swenson@bhsu.edu 605-642-6425
Vice-Chair (2022-2024)	Carol Kuper Morgan Community College	<u>carol.kuper@morgancc.edu</u> 970-542-3202
Secretary/ Treasurer (2020-2023)	Mona Mocanasu MSU Denver Denver, CO	mmocanas@msudenver.edu 303-615-0747
MAA National Rep (2020-2023)	Tracii Friedman Colorado Mesa University GrandJunction, CO	tfriedma@coloradomesa.edu 970-248-1667
Program Co-Chairs (2022-2023)	Daluss Siewert Dan Swenson Black Hills State University, SD	daluss.siewert@bhsu.edu Daniel.Swenson@bhsu.edu 605-642-6425

Other Committee Members and Representatives

Section Nominating Committee

(2021-2024)	Janet Heine Barnett	(Chair), CSU - Pueblo
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(2020-2023) John Carter, MSU Denver

(2022-2025) Michael Jacobson, UC Denver

DTA Awards Selection Committee

(2022-2023) Dan Swenson, BHSU

- (2022-2023) Robert Cohen, Western Colorado University
- (2022-2023) Anne Dougherty, University of Colorado (2022-2024) Brittni Lorton, CCD

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Daniel.Swenson@bhsu.edu 605-642-6425

rcohen@western.edu 970-943-2111 anne.dougherty@colorado.edu Brittni.lorton@ccd.edu

ECTA Awards Selection Committee

(2022-2023) Dan Swenson, BHSU

(2022-2023) Michael Mikucki, Colorado School of Mines

(2020-2023) Anne Dougherty, University of Colorado (2022-2025) Brittni Lorton, CCD

Section Awards Coordinator

(2020-2023) Kyle Riley, SDSMT

Section Student Activity Coordinator (2020-2023) Divya Vernerey, UC Boulder

Higher Education Representative on CCTM Governing Board (2021-2023) Gulden Karakok, UNC

Section Book Sales Coordinator (2021-2024) Janet Heine Barnett, CSU - Pueblo

Section NExT Committee (2022-2025) Rebecca Swanson, Colorado School of Mines

Mandi Schaeffer Fry, MSU Denver

Public Information Officer and Section Liaison Coordinator (2020-2023) Mona Mocanasu, MSU Denver

Website Editor (2021-2024) Oscar Levin, University of Northern Colorado

Newsletter Editor (2022-2025) Pam Peters, PPSC Daniel.Swenson@bhsu.edu 605-642-6425 mikucki@mines.edu 303-273-3073 anne.dougherty@colorado.edu brittni.lorton@ccd.edu

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Chair's Corner

Greetings to all of you in the Rocky Mountain Section of the MAA!

I hope that 2023 is off to a great start for you, and look forward to seeing you at this year's <u>Section Meeting</u> the first in-person meeting since 2019. The meeting will be held at Black Hills State University on April 21-22. Program cochairs, Daluss Siewert and Daniel Swenson, are busy finalizing the program as well as registration set up. Details in the newsletter.

I hope you'll join me in celebrating one or our Section leaders, Hortensia Soto, as she begins her two-year term as President of the MAA beginning February 1. Tensia, who now serves on the faculty at CSU in Fort Collins, has served in a number of positions within the Rocky Mountain Section as well as at the national level. Most recently, Tensia served as MAA Associate Secretary, where she oversaw the scientific program for MAA national meetings, especially MAA MathFest. Tensia served as one of the lead editors for the MAA Instructional Practices Guide, published in 2017, and, in 2018, received the MAA Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics. I know you'll join me in congratulating Tensia, and thanking her for all her work on behalf of the MAA.

We have upcoming elections to fill several positions. I want to thank the Nominations Committee (Janet Barnett, chair; John Carter; and Michael Jacobson). Anticipate an email with an electronic ballot in March for the next Rocky Mountain Section Representative to the MAA Congress. Candidates are:

Anne Dougherty, University of Colorado Boulder Tracii Friedman, Colorado Mesa University

Also look for information in this newsletter for the upcoming elections for chairperson-elect and secretary/treasurer.

I have served as the higher education representative on the <u>Colorado Council of</u> <u>Teachers of Mathematics (CCTM)</u> governing board for two terms, and will be stepping down soon. I am grateful to have had this opportunity to serve the Section. It's been a great opportunity to meet exceptional colleagues in CCTM and provides an important connection between the MAA and CCTM. The higher ed representative is appointed by the section representative. Contact me or Tracii Friedman if you are interested in taking on this role.

I also want to thank Kyle Riley, the Section awards organizer, and Pam Peters, for her work as newsletter editor. I hope you'll thank them for their work, and also consider ways in which you can contribute to the Section. Take a look at the <u>Section governance</u> information and think about what roles or committees you'd like to consider.

Do you have an idea for carrying out outreach activities, and need funding to make your idea a reality? The MAA has a number of <u>grant</u> <u>opportunities to support outreach</u>. Deadlines for these programs are coming up in February. I encourage you to consider applying.

In other news around the Section, I note that the <u>20th Annual Pikes Peak Regional</u> <u>Undergraduate Mathematics Conference</u> will take place on Saturday March 18, 2023 at University of Colorado, Colorado Springs.

The <u>Colorado Math Leaders (CML)</u>, in partnership with the Colorado Community College System and Colorado Department of Higher Education, will be part of <u>the Launch</u> <u>Years Initiative 2.0</u>, led by the Dana Center at the University of Texas at Austin. The 3-year effort seeks to develop robust, rigorous mathematics pathways for high school students, and to align these pathways with the first two years of post-secondary mathematics.

I know we all share a vision for improving the quality of mathematics at all levels across the Rocky Mountain Section. I look forward to seeing you at the Section meeting in April, where we can learn from and with each other, and strengthen our community as we join to support the mission of the MAA: "to advance the understanding of mathematics and its impact on our world."

> Gulden Karakok, UNC Chair, Rocky Mountain Section

Congressional Representative Report

No report.

Section News

University of Northern Colorado

The Department of Mathematical Sciences (formerly School of Mathematical Sciences) are conducting two faculty searches this semester. One position is for Statistics assistant professor (tenure-track) and the second search is for

Computer Science assistant professor (tenuretrack). Information about these positions is listed on UNC's career opportunities website: <u>https://careers.unco.edu/postings/5829</u> & <u>https://careers.unco.edu/postings/5828</u>

UNC's Math Contest had a very successful first round with 851 participants in November! Final round will be on campus in February. More information can be found on UNC Math Contest website

(https://uncmathcontest.wordpress.com).

Two of our faculty members, Drs. Gulden Karakok and Katie Morrison, together with Drs. Molly Jameson and Joanna Lewis (faculty members at UNC's School of Psychological Sciences) received an NSF-IUSE funding for their projects to improve productive dispositions toward mathematics of pre-service elementary teachers (PSETs). For more information: https://www.nsf.gov/awardsearch/showAward?A WD_ID=2142311 The UNC's Math Circles program

(https://northerncoloradomathcircles.org) hosted Dr. James Tanton in November. This was our first session since the COVID pandemic and we will continue our sessions during this spring semester. During his visit, Dr. Tanton also delivered a talk for the department and met with our undergraduate and graduate students.



Gulden Karakok UNC

Pikes Peak State College

It is with great sadness that we report the passing of Christine Arnold on October 13, 2022. Christine passed away from cancer which she has been fighting for two years. Christine earned her Bachelor of Science in Math from University of Southern Colorado in 2001 and her Master's of Education from UCCS in 2005. She has been a well-loved and a highly respected member of the PPSC Math Department, the Math & English Family, and the College for over 13 years. Christine was well-known throughout the Rocky Mountain region in the MAA, CoADE, and ColoMATYC. Her tenacity, authenticity, and fierce care and love for students has been legendary. She will be deeply and sorely missed by all whose lives she touched.

Is news from your school missing? Send your news to your department liaison now with a request to forward it to the Pam Peters, Newsletter Editor, for inclusion in the next issue. pam.peters@pikespeak.edu

Mark Your Calendars!

Submissions to the FA23 Newsletter are due 25 August. Plan ahead! Contact Pam Peters, <u>pam.peters@pikespeak.edu</u> if questions.

The 2022 Rocky Mountain Section Meeting April 21-22, 2023 Black Hills State University



BLACK HILLS STATE UNIVERSITY

The 2023 Rocky Mountain Section meeting will be held April 21-22, 2023 on the campus of Black Hills State University in Spearfish, South Dakota.

Plenary speakers:		
MAA Section Visitor	Pólya Lecturer	2022 Burton W. Jones Distinguished Teaching Award Recipient
	Photo credit of Joel Landsberg	
Dr. Edray Goins	Dr. Sarah Greenwald	Dr. Bob Cohen
Pomona College	Appalachian State University	Western Colorado University

Special Sessions/Parallel Sessions The History of Mathematics and What it Can Teach Us

Organizers: Janet Barnett (Colorado State University-Pueblo) and George Heine (Math and Maps) At the Fourth International Congress of Mathematicians in Rome in 1908, Poincaré opened his talk "The Future of Mathematics" by declaring: "If we wish to foresee the future of mathematics, our proper course is to study the history and present condition of the science." This session invites speakers to respond to Poincaré's call by sharing interesting tales from the history of our science, as well as historical accounts of how specific mathematical topics came into their present condition. Talks that suggest ways in which that history can be used to enrich the mathematical learning experience of today's students and future mathematicians are especially encouraged.

Combinatorics and Matrix Theory

Organizers: Colin Garnett (Black Hills State University) and Bryan Shader (University of Wyoming) This session is open to any researchers or students exploring the relationship between matrices and combinatorics. This could include combinatorial matrix patterns, algebraic graph theory, tournament matrices, inverse eigenvalue problems for graphs, zero-forcing, and any topic roughly related to the underlying combinatorial structure of matrices.

Corequisite Instruction in the RMS-MAA

Organizers: Meredith Anderson (Adams State University) and Steve Aldrich (Colorado State University-Pueblo)

In this session, we will be discussing corequisite instruction, supplemental instruction, and supplemental academic instruction in general education mathematics courses around the region. This session will consist of brief talks from representatives at different institutions, where they discuss how they deliver corequisite or supplemental instruction at their universities, successes and challenges they have encountered, and any results they may have so far. The remaining time will be spent in a Q&A session with speakers.

Additional Parallel Sessions Teaching Session – General Undergraduate Research Session General Session

Tentative Schedule:

The meeting will officially begin on Friday, April 21st at 1:00 pm. There will be a pre-conference workshop led by Dr. Nick Van Kley, Director, BHSU Center for Faculty Innovation, starting at 9:00am and a chair/liaison and student lunch at 11:30am. The conference will wrap-up at about 1:00pm on Saturday, April 22nd.

Meeting Webpage:

The call for papers, hotel information, registration links, and other meeting information will be posted to the meeting webpage soon so please check the meeting webpage for updates: https://www.rockymountain.maa.org/events/spring-2023-section-meeting

Dan Swenson and Daluss Siewert Co-organizers, 2023 Rocky Mountain Section Meeting <u>Daniel.Swenson@bhsu.edu</u> <u>Daluss.Siewert@bhsu.edu</u>

Additional note: The primary way we sustain the activities of the section is through the section meetings and we have not had a face-to-face meeting for three years. The section does get some funding from the national organization that is a small portion of the dues our section members pay to the MAA. This funding stream is useful, but not nearly enough to sustain our current section activities. If you value the section meeting, the teaching awards, section activity grants, or anything else our section sponsors then a small donation this year would be greatly appreciated. We plan to have a donate button that accompanies registration and the funds you donate at registration will go directly to funding the section.

An alternate option would be to donate through the Voluntary Section Dues. See the form towards the end of this newsletter. And many thanks – we have a healthy, robust, and active section. With your help, we can keep it that way!

19th Annual Front Range Applied Mathematics Student Conference (FRAMSC) CU Denver, Auraria Campus Saturday, March 11, 2023

The SIAM student chapters of Colorado are hosting their 19th annual regional student conference on applied mathematics for all schools along the Front Range. This event will allow students from different universities in the area to see what is being done in this field and promote interest in applied mathematics in general. This event is open to both undergraduates and graduate students.

The program for this one-day conference will include student talks (20 minutes), an industry panel, a conference luncheon, and a keynote address. Graduate and undergraduate students are invited to present their research in any area of applied math, statistics, or data science. The keynote address, given by Dr. Steve Sain, a Senior Principal Data Scientist at Jupiter Intelligence, will be "Climate risk analytics and data science: Assessing risk in a changing climate".

Registration is \$10 for students and \$20 for faculty and will be used to defray the costs of the venue and lunch. Everyone is invited to attend and support our student speakers! Registration and additional information are available through the conference website: <u>framsc.org.</u>

20th Annual Pikes Peak Regional Undergraduate Mathematics Conference (PPRUMC) University of Colorado, Colorado Springs Saturday, March 18, 2023 Website: https://math.uccs.edu/PPRUMC-2023

The PPRUMC Steering Committee is delighted to announce that one of PPRUMC's co-founders will serve as our 20th Anniversary Keynote Speaker: Dr. Hortensia Soto. Tensia is well known to many of us in MAA's Rocky Mountain Section, and indeed throughout the community of undergraduate mathematics instructors in the United States. We are extremely fortunate that she is able to include PPRUMC in her busy schedule and eagerly look forward to hearing her talk: The E in REU.

The rest of the program for this one-day conference will include a panel on graduate school and career opportunities, a conference luncheon, and – most importantly – undergraduate talks on a variety of mathematical topics. Students throughout the Pikes Peak region and beyond are strongly encouraged to present in the areas of mathematics, mathematics education and the history of mathematics. 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.

Students who do not wish to present are also encouraged to attend, and learn more about mathematics and the mathematics profession. Based on past participation, dozens of student presenters and about a hundred attendees from Colorado, Wyoming and other neighboring states are expected – don't let your students miss out on this opportunity to meet other students from the region who share their interest in mathematics!

So, mark your calendar for March 18 and begin recruiting your own students to attend and present at the conference now! We anticipate that there will again no registration or lunch fees for the conference; financial reimbursement for student travel expenses may also be available.

Registration and additional program details will be made available soon through the conference website. For more information, you can also contact the local organizer Greg Oman at goman@uccs.edu.

PPRUMC 2023 Keynote Talk: *The E in REU* Dr. Hortensia Soto, Colorado State University

Research experiences for undergraduate mathematics majors take shape in various ways. In this presentation, I will paint a picture of the different landscapes for REUs and the affordances that they each provide. While we can all agree on the importance of the research, I will stress the value of the varied experiences.

About our Speaker: Hortensia is a Professor at Colorado State University. She has published in various areas of mathematics education including assessment, mathematical preparation of elementary teachers, outreach efforts for high school girls, and especially in the area of teaching and learning of undergraduate mathematics. Her current research efforts are dedicated to investigating the teaching and learning complex analysis, where she adopts an embodied cognition perspective and is part of the Embodied Mathematics Imagination and Cognition community.

Since her days as an undergraduate student, Hortensia has mentored young women and promoted mathematics via summer outreach programs. She has also been involved with facilitating professional development for K-16 teachers in Nebraska, Colorado, and California. As a result of this work she received the MAA Deborah and Franklin Tepper Haimo Award for Distinguished College or University Teaching of Mathematics.

Hortensia is a working member of the Mathematical Association of America. She served as the Associate Treasurer, the Associate Secretary, as an editor of the MAA Instructional Practices Guide, and will serve as MAA President starting February 1st.



RMS to elect a Section Representative to MAA Congress Spring 2023

The Section Nominating Committee is pleased to announce the candidates for this year's election of our next Section Representative to MAA Congress:

- Anne Dougherty, University of Colorado Boulder
- Tracii Friedman, Colorado Mesa University.

Candidate statements for both nominees appear below. The individual elected to this position will serve a three-year term (beginning in July 2023) on the MAA Congress, the national body that serves as a conduit for communication between MAA's Board of Directors, its sections, and other constituencies. **The election itself will be conducted electronically by National**, sometime prior to our section meeting; **please watch your email for your ballot** which will also provide a voting deadline. Our thanks to both Anne and Tracii for their willingness to serve the section!

Candidate Statements

Anne Dougherty, University of Colorado Boulder



I studied analysis and probability at the University of Wisconsin Madison and received my Ph.D. in 1994. I joined the Department of Applied Mathematics at CU Boulder as an instructor in 1994 and have been Associate Chair since 2000. I also hold the J.R Woodhull/Logicon Teaching Professor endowed chair.

During my time at CU, I have primarily focused my efforts on undergraduate education. I was involved in the creation of the Bachelor's Accelerated Masters (BAM) in Applied Math approximately twenty years ago, the BA in Statistics and Data Science in 2018, and the BAM in Statistics and Data Science in 2022. I am a faculty advisor for our students and derive personal satisfaction from watching them succeed. I am CU's faculty representative for the Goldwater Scholarship and have worked with 43 successful Goldwater recipients since 2001. I also work with other faculty to recruit and train our Mathematical Contest in Modeling teams.

Outside of CU, I have worked on the annual Front Range Applied Math Student Conferences, which have been ongoing since 2005. This conference is a joint effort of students and faculty from several Front Range schools and provides a venue for undergraduate and graduate students to showcase their research. For many of the students it is their first conference presentation, and we do our best to support them.

I have served on the selection committee for the Burton W. Jones Teaching Award. However, I would like to become more involved with the Rocky Mountain Section of the MAA. Hence, I am honored to be nominated as the Section Representative to the National Congress. As my work at CU indicates, I believe it is important to mentor and advise our students throughout their education, both in and out of the classroom. I look forward to bringing this enthusiasm and dedication to this position.

Tracii Friedman, Colorado Mesa University



My name is Tracii Friedman, and I am a Professor of Mathematics and the Coordinator of Quantitative Literacy at Colorado Mesa University. I have served the last three years as your Rocky Mountain Section Representative to the Congress of the MAA and I am honored to be nominated to serve a second term. As I have navigated my academic career over the last 25 years, I have counted on the MAA to provide critical resources and opportunities such as: Project NExT, MAA Guidelines and Best Practice Recommendations, numerous outstanding publications, professional development and grant opportunities, and more recently, a long list of outstanding virtual programming. I am delighted to give back to the MAA and would welcome the opportunity to continue serving as liaison between our section and national leadership.

The sections have long provided an important means for faculty to connect with each other and with MAA programming, helping us to stay current with national research-based trends and discoveries in mathematics and mathematics education. As the MAA has transitioned to one national meeting per year, the role of the sections has become increasingly significant. Our ability to effectively communicate with national leadership is critical to the success of the section and in particular, the section's ability to meaningfully impact the professional lives of its members.

During my first term as Section Representative, I have worked closely with the Section Executive Committee and other section members to identify matters of importance to our section (such as improving the association's support of section meetings) so that I could bring them to the national conversation. During the Congress meetings, I have asked questions, discussed our concerns, and shared our success stories. I have listened to and learned from my fellow Congress Representatives and the MAA leadership team. My report from each Congress meeting (appearing in the Fall Newsletters and communicated during annual section business meetings) has included updates on how the MAA is responding to the many challenges facing our world today; policy discussions and proposals; strategic planning; and new ideas and opportunities for our section members.

Over the course of my 20 years in the Rocky Mountain Section, I have greatly appreciated getting to know my fantastic colleagues from across Colorado, South Dakota, and Wyoming through my service on Section Committees and my participation in Section and National Meetings. I hope to continue serving as your Representative to the MAA Congress.

Selected Recent Experience:

- MAA Congress Representative (2020–present)
- Professor of Mathematics, Colorado Mesa University (2002-present)
- Coordinator of Quantitative Literacy (August 2022–present)
- Co-Director of the GirlsDoMath Summer Camp (2018–present)
- Supported by MAA Tensor Women and Mathematics Grant (2018, 2019, 2020)
- Member of the MAA Tensor Women and Mathematics Grant Review Panel (2021, 2022)
- Co-Program Chair/Conference Organizer: Rocky Mountain Section Virtual Meeting (2021)
- Member of the RMS Early Career Teaching Award Selection Committee (2017)
- Program Chair/Conference Organizer: Joint Rocky Mountain/Intermountain Section Meeting (2016)
- Organized and participated in numerous regional and national MAA conference sessions

Seeking Volunteer for RM Section Newsletter Editor

Have you been reading the Newsletter and thinking "this is so interesting" or "I would have done this differently"? Have you been wanting to be of service to the Section but haven't really found your niche? It's time for some fresh blood and a new perspective. If you are interested in taking over editing the RM MAA Section newsletter, contact <u>pam.peters@pikespeak.edu</u>. No previous experience necessary!

Nominating Committee Report

In addition to selecting our next Section Representative to MAA Congress (reported elsewhere in this Newsletter), the Section will hold elections for two other leadership positions this year – it's been a busy fall semester for the Nominating Committee!

We are pleased to report the following confirmed nominees to date for the following positions:

- Nominee for Chairperson-Elect: Beth Burroughs (Montana State University).
- Nominees for Secretary\Treasurer:
 - o Kyle Riley (South Dakota School of Mining & Technology)
 - Rebecca Swanson (Colorado School of Mines)

Our thanks to Beth, Kyle and Rebecca for their willingness to serve the section!

Candidate statements for all nominees will be available on the section website later this spring. Nominations for both these positions will continue to be accepted between now and the section's Annual Business Meeting at Black Hills State University (April 21-22). Voting will be held electronically following that meeting, with ballots due by a date in May to be announced.

Full details of the position duties are described on pages 1–4 of the Section Procedures Handbook. Brief descriptions of these follow, for those who may wish to consider making further nominations. Self-nomination is permitted. Only members of the MAA are eligible to serve.

Chairperson-Elect

This individual will serve one year as Chairperson-Elect (beginning in May 2023), two years as Chairperson of the Section, and one year as Past Chairperson. In the first and fourth years, responsibilities of the position include chairing the section's two teaching awards committees and the section activity grant award committee. As Section Chairperson in the second and third years, this individual leads the Executive Committee and presides over all business meetings for the section. The Chairperson is also responsible with appointing members to the section's standing committees.

Secretary\Treasurer

This individual will serve a three-year term (beginning in May 2023) on the Section Executive Committee, with responsibility for Section funds, preparation of financial and other reports for national, preparation and distribution of minutes for all Executive Committee and Business Meetings, and assisting other officers in the performance of their duties.

Questions and additional nominations may be sent to any member of the Nominating Committee. Sincerely,

Janet Heine Barnett (committee chair), <u>janet.barnett@csupueblo.edu</u> John Carter, <u>jcarte11@msudenver.edu</u> Michael Jacobson, <u>michael.jacobson@ucdenver.edu</u>

Meetings Calendar

SIAM Front Range Student Conference, CU Denver - Auraria Campus March 11, 2023 PPRUMC Conference, UCCS March 18, 2023 ColoMATYC Annual Meeting, Red Rocks CC April 7, 2023 MAA Rocky Mountain Section Meeting, BHSU April 21-22, 2023 MAA MathFest; Tampa, FL; August 2-5, 2023 NCTM Annual Meeting, Washington DC October 25-28, 2023 AMATYC Annual Conference, Omaha, NE November 9-12, 2023 Joint Mathematics Meetings, San Francisco, CA, January 3-6, 2024 MAA Rocky Mountain Section Meeting, PPSC April 19-20, 2024 MAA MathFest; Indianapolis, IN, August 7-10, 2024 AMATYC Annual Conference, Atlanta, GA

November 14-17, 2024 NCTM Annual Meeting, Chicago, IL September 25-18, 2024 Joint Mathematics Meetings, Seattle, WA January 8-11, 2025

MAA Rocky Mountain Section Guidance for Speakers

The Rocky Mountain Section would like to offer the following suggestions regarding preparation of a talk at the conference.

Presentation Length

All contributed talks will be placed in 20-minute time slots, ideally, approximately 15 minutes for the presentation with a few minutes at the end available for questions. Please prepare your presentation to fit the time allotted.

A moderator will be assigned to facilitate each session of presentations. The moderator will introduce the speaker, act as "host" for the session, signal the end of the presentation, and ask for questions from the audience

You can present your talk using Power Point slides, PDF, or similar, which will greatly enhance the pace of a presentation.

Presentation Tips

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.

Please make sure that the slide content is typed in a font big enough and with spacing adequate to be seen clearly. We recommend including only a small amount of text on each slide.

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 1st 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.

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

For information on the Burton W. Jones Award for Distinguished College or University Teaching of Mathematics, check out: <u>https://www.rockymountain.maa.org/s/BWJones_nomination_form-2dge.docx</u>

Nomination forms should reach Section Awards Coordinator, Kyle Riley, <u>Kyle.Riley@sdsmt.edu</u>, by December 15 of each year. Complete nomination materials should reach Awards Coordinator by January 15 of each year.

Please consult the Section webpage (http://www.rockymountain.maa.org) for complete guidelines.

The Rocky Mountain Section of The Mathematical Association of America Early Career Teaching Award for Excellence in Teaching in the Mathematical Sciences

For information on the Early Career Teaching Award, check out: https://www.rockymountain.maa.org/s/EarlyCareer nomination form-tz6b.docx

Nomination forms should reach Section Awards Coordinator, Kyle Riley, <u>Kyle.Riley@sdsmt.edu</u>, by December 15 of each year. Complete nomination materials should reach Awards Coordinator by January 15 of each year.

Please consult the Section webpage (http://www.rockymountain.maa.org) for complete guidelines.

Early Career Teaching Award Guidelines

Part of the core mission for the Rocky Mountain Section is to provide recognition for quality mathematics teaching. The Early Career Teaching Award was established to recognized excellence in teaching in the mathematical sciences for faculty that are early in their career.

Eligibility

Nominees must:

- Hold a doctorate or master's degree
- Be college or university teachers who have held a full-time faculty appointment in a college department of mathematical sciences in the Rocky Mountain Section for at least two, but not more than seven, years since receiving their degree. A nominee who has just started the eighth year of teaching at the time of the application is still eligible for the award. If a nominee has held their degree for more than seven years, then the nominator must indicate on the nomination form the times that the nominee was not teaching. Common exceptions to the seven-year limit are maternity, paternity, family, or medical leaves. Sabbaticals and postdoctoral fellowships are exceptions only if they involved no teaching and the application does not include accomplishments made during these times.

Hold membership in the Mathematical Association of America

Guidelines for nomination

Nominees for the award may be made by any member of the Rocky Mountain Section of the MAA. Nominees should:

- Be recognized as extraordinarily successful in their teaching
- Have effectiveness in teaching undergraduate mathematics that can be documented
- Have had influence in their teaching beyond their own classrooms
- Foster curiosity and generate excitement about mathematics

Nomination form is due **December 15**. Complete nomination packet is due **January 15**.

Nomination Packet

A complete nomination packet should consist of the following documentation as it is described below.

- 1. **Nomination Form and One-Page Summary** Describe the unusual and personal and professional qualities of the nominee that contribute to his or her extraordinary teaching succes and attach to this completed nomination form.
- 2. Narrative (Up to 2 pages) Describe the nominee's extraordinary success in teaching by providing a narrative of the nominee's background, experience, teaching style, special contributions, other teaching awards, and any additional evidence of the nominee's unusual achievement in teaching. Note especially effectiveness in teaching undergraduate mathematics and influence beyond the nominee's own classrooms. The narrative should not exceed two single-spaced pages.
- 3. Additional Documentation (Up to 2 pages) Submit no more than two pages of further evidence to document the nominee's extraordinary teaching success. This documentation will vary greatly from institution to institution, but may include summaries of peer or student evaluations, comments on teaching, possible increases in numbers of majors in mathematics (with clear evidence of the nominee's substantial responsibility for them), possible student success in mathematics competitions (with clear evidence of the nominee's substantial responsibility for them), possible student success in research in mathematics conducted by undergraduate students under the direction of the nominee, production of superior quality honors theses by undergraduate students under the direction of the nominee, development of curricular materials successfully used by colleagues, adoption of the nominee's teaching methods or techniques by experienced colleagues, service as a respected adviser for a student group, etc.

Nominators should bear in mind that the selection committee for the award might view a nomination more positively if it is accompanied not just by carefully chosen testimonials from a few selected students and faculty, but also reports comments and criticism which is representative of the whole spectrum of opinion among students and faculty on the nominee's teaching.

4. Letters of Recommendation (Each letter is one page. Maximum of 5 letters.)

- Two letters from the nominee's present or former students.
- One letter from the nominee's colleagues (could be the department chair)
- At most two additional letters from anyone qualified to comment on the nominee's extraordinary teaching success, including additional students and/or colleagues.

Voluntary Section Dues

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.

Contributions may also be made in support of the Pikes Peak Regional Undergraduate Mathematics Conference; simply choose "Other" on the coupon below and specify "PPRUMC" in the space provided.

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.

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MAA Rocky Mountain Section Treasurer/Secretary	
Metropolitan State University of Denver	
Department of Mathematical and Computer Sciences	

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.

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 π ; 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."