



# Spring 2021 Newsletter

Section Website: <a href="http://sections.maa.org/rockymt">http://sections.maa.org/rockymt</a>

## Spring 2021 Newsletter in PDF Format for Printing

Click on the following link for PDF document that is formatted for printing.

http://sections.maa.org/rockymt/newsletters/spring2021news.pdf

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#### 2020 - 2021 Section Officers and Committee Members

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

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 2020 - 2021

Chair Dan Swenson daniel.swenson@bhsu.edu

(2020-2022) Black Hills State University 605-642-6425

Spearfish, SD 57799

Past Chair Alexander Hulpke alexander.hulpke@colostate.edu

(2019 - 2020) Colorado State University 970-491-4288

Fort Collins, CO 80523

Vice-Chair Kenneth Monks Kenneth.Monks@frontrange.edu

(2020-2022) Front Range Community College 303-678-3611

Boulder County Campus

Secretary/ Mona Mocanasu mmocanas@msudenver.edu

Treasurer MSU Denver 303-615-0747

(2020-2023) Denver, CO

MAA Tracii Friedman tfriedma@coloradomesa.edu

National Colorado Mesa University 970.248.1667

Rep GrandJunction, CO

(2020-2023) GrandJunction, CO

Program Tracii Friedman <u>tfriedma@coloradomesa.edu</u>

Co-Chairs Kyle Riley Kyle.Riley@sdsmt.edu

#### Other Committee Members and Representatives

**Section Nominating Committee** 

Nathaniel Miller (Chair), UNC nathaniel.miller@unco.edu

Greg Oman, UCCS goman@uccs.edu

**DTA Awards Selection Committee** 

Alexander Hulpke (Chair), CSU <u>alexander.hulpke@colostate.edu</u>

Rob Tubbs (UCB) <u>Tubbs@Colorado.edu</u>

Travis Kowalski (SDSMT) <u>Travis.Kowalski@sdsmt.edu</u>

**ECTA Awards Selection Committee** 

Alexander Hulpke (Chair), CSU <u>alexander.hulpke@colostate.edu</u>

Rob Tubbs (UCB) tubbs@Colorado.edu

Molly Moran (Colorado College) mmoran@coloradocollege.edu

**Section Awards Coordinator** 

(2020-2023)

**Section Student Activity Coordinator** 

(2020-2023) Divya Vernerey, UC Boulder

divya.vernerey@colorado.edu

**Higher Education Representative on CCTM Governing Board** 

(2019-2021) Gulden Karakok, UNC <u>gulden.karakok@unco.edu</u>

**Section Book Sales Coordinator** 

(2018-2021) Janet Heine Barnett, CSU - Pueblo janet.barnett@csupueblo.edu

**Section NExT Committee** 

(2019-2022) Rebecca Swanson, Colorado School of Mines swanson@mines.edu

Mandi Schaeffer Fry, MSU Denver aschaef6@msudenver.edu

**Public Information Officer and Section Liaison Coordinator** 

(2020-2023) Mona Mocanasu, MSU Denver mmocanas@msudenver.edu

**Website Editor** 

(2021-2023) Oscar Levin, University of Northern Colorado Oscar.Levin@unco.edu

**Newsletter Editor** 

(2019-2022) Pam Peters pam.peters@ppcc.edu

Pikes Peak Community College 719-502-3640

#### Chair's Corner

Dear Friends, How are you doing?

It's been about half a year since I last wrote to you, in the previous edition of this Newsletter. In some ways, things seem much the same now as they did then. Certainly, the pandemic continues. In the United States, one out of every 700 people has now been killed. Many of us have lost friends, neighbors, colleagues, family members. And, in 2021 our nation still faces the same problems of social injustice, inequality, climate change, and misinformation that we did in 2020.

On the topic of misinformation: in 1710 Jonathan Swift wrote, "Falsehood flies, and the Truth comes limping after it." I don't know much about Swift's time, but this seems pretty accurate in 2021.

Still, at least we can say that misinformation is not a new phenomenon! I, for one, draw hope from this. And, I draw hope from working with all of you! Mathematicians certainly try to distinguish truth from falsehood, and I think we are pretty good at it. Especially when we work together in collaboration.

Accordingly, I look forward to seeing you all (online), this April 16-17 for our annual Section Meeting. We could still use some help: if you would be willing to moderate one of our parallel sessions, please let us know. We would at least like to hold sessions in Math Education, History of Math, Undergraduate Research, and Graduate Research, plus a General session and (new this year) a session in Online Topics, regarding issues in teaching or doing math at a distance. (If you have a proposal for a parallel session, please let us know that also.)

Thank you very much for being a part of the Rocky Mountain Section, and for making this group what it is!

Sincerely,
Dan Swenson
Black Hills State University
Chair, Rocky Mountain Section
Mathematical Association of America

## Congressional Representative Report

If you have any questions or input that you would like me to share with the MAA, please don't hesitate to reach out:

Tracii Friedman
Colorado Mesa University
Representative, Rocky Mountain
Section
tfriedma@coloradomesa.edu

#### **Section News**

#### **Colorado School of Mines** STUDENT AWARDS

Harrison Magee (Computational & Applied Mathematics) and Justin Nichols (Statistics) received the Fall 2020 Outstanding Graduating Senior Award. Mines' AMS department presented Outstanding Graduating Senior Awards to two students in recognition of their academic excellence and their service to the department, university and community.

Harrison Magee

Laura Albrecht received the 2020 Professor Willy Hereman Endowed Scholarship. This scholarship is presented to a student studying Applied Mathematics and Statistics who strives for excellence in scholarship, research and/or departmental involvement. The Scholarship was established by Dr. Douglas E. Baldwin, Mines BS '03, MS '04, in appreciation of Dr. Hereman's mentorship and inspiration.



Azlan Tubbs received the 2020 FAST Scholarship. This scholarship is presented to a student studying Applied Mathematics and Statistics and is also a member of the Society for Women in Mathematics, our local AWM chapter. The scholarship was established to recognize women with leadership skills and interest in industry.



Kary Martinez received is the winner of the Fall 2020 Dr. Bhakta Rath and Sushama Rath Research Award. The honor, which recognizes the Mines doctoral graduate whose thesis demonstrates the greatest potential for societal impact, was presented during Fall 2020 Graduate Commencement. Martinez' dissertation focused on statistical epidemiological models and incorporating new spatiotemporal effects to generate more realistic estimates of the spread of an epidemic – including the current COVID-19 pandemic. Dr. Martinez's thesis advisor was Dr. Stephen Pankavich.



#### **FACULTY AWARDS**

The Mines' AMS department is proud of their award-winning faculty and staff:



Karin Leiderman Gregg, Associate Professor of Applied Mathematics and Statistics, was awarded the Mines Martin Luther King Jr. The awards are given for commitment to diversity and inclusion on campus. Dr. Leiderman was honored for her advising and participation in the Society for Women in Mathematics (SWiM), her leadership as the director of graduate studies in Applied Mathematics and Statistics (AMS), her continued participation in workshops and conferences related to diversity, inclusion and access, and her commitment to putting those lessons learned into practice. With her guidance and mentorship, SWiM has grown to be the most active undergraduate student club in AMS. As director of graduate studies in AMS, Leiderman has demonstrated a dedication to improving the AMS graduate programs. especially as it relates to equity, access and inclusion.

Rebecca Swanson, Colorado School of Mines

## South Dakota School of Mines and Technology



The big news in our department is that Dr. Kowalski has been awarded the Chauvenet Prize this year. The Chauvenet Prize is an MAA award to recognize an outstanding expository article on a math topic. The award-winning article is: "The Sine of a Single Degree", which appears in volume 47 of The College Mathematics Journal of 2016.

The campus is busy with planning a major library renovation that will include space for a new mathematics learning center, another exciting development.

Kyle Riley, SDSMT

#### **Montana State University**

We are pleased to welcome two new faculty to our department:

Blair Davey, PhD, joins the mathematics group. Dr. Davey's research interests are in partial differential equations (PDEs), harmonic analysis, and geometric measure theory (GMT). She studies the theory of elliptic PDEs through the perspectives of unique continuation, solvability of boundary value problems, and the connections to parabolic theory. Her work on unique continuation is motivated by Landis' conjecture, which seeks to determine the optimal rate of decay at infinity of entire solutions to Schrödinger equations. She uses harmonic analysis techniques to understand when systems of generalized Schrödinger equations are uniquely solvable subject to certain boundary conditions. She relies on probabilistic tools to understand the non-trivial connections between elliptic and parabolic theory. She also works on GMT, studying purely unrectifiable (fractal) sets, generalized Favard lengths, the Besicovitch projections theorem, and various quantifications of these notions.

Shinjini Nandi, PhD, joins the statistics group. Nandi is primarily interested in the development of new statistical theory and methodology in the realm of multiple comparisons. Multiple comparisons is a highly active research area in the broad domain of high-dimensional statistical inference. Her current research focuses on the development of new methods of multiple comparisons to test complex structures of hypotheses that are frequently obtained from a wide variety of scientific studies, including but not limited to genomics, brain-imaging studies, and astronomical data. The objective is to identify signals in high-dimensional datasets with greater precision than existing methods, typical metrics of precision being control on false discoveries and power in identifying the true signals. Dr. Nandi is interested in developing such new multiple comparisons methods using both frequentist and Bayesian techniques. Her other interests lie in collaborative research projects that apply statistical methods to analyze environmental and ecological data and healthcare data.

We are also proud to announce that five faculty members earned tenure and promotion to associate professor in 2020. They are:
David Ayala (Mathematics)
Mary Alice Carlson (Mathematics Education)
Nicole Carnegie (Statistics)
Scott McCalla (Mathematics)
Megan Wickstrom (Mathematics Education).
Beth Burroughs, MSU

#### **University of Northern Colorado**

We are excited to announce that UNC's School of Mathematical Sciences was one of the six winners of Colorado Governor Jared Polis's Zero Textbook Cost Challenge and received the "Outstanding Z Department" award. This award was for outstanding performance in advocating for and advancing zero cost textbook resources and open education resources for mathematics, statistics, and computer science students in Colorado. The CDHE press release can be found at <a href="https://cdhe.colorado.gov/news-article/governor-jared-polis-names-ztc-degree-challenge-winners">https://cdhe.colorado.gov/news-article/governor-jared-polis-names-ztc-degree-challenge-winners</a>.



Together with faculty members in the region, Drs. Gulden Karakok and Nathaniel Miller initiated a local community as part of COMMIT Network. The Four Corners COMMIT aims to encourage and advance inquiry-based teaching and learning in the four corners states of Colorado, Utah, Arizona, and New Mexico. The Four Corners COMMIT welcomes interested teachers from 4-year and 2-year colleges as well as K-12 schools. The leadership team includes Spencer Bagley and Jonas D'Andrea from Westminster College in Utah, Ellie Blair, Dana Ernst, and Angie Hodge from Northern Arizona University, and Belin Tsinnaiinnie from Santa Fe Community College. They aim to provide productive regional meetings and workshops, encouraging participation throughout the large Four Corners region. If you are interested in joining the leadership team or participate in

activities, feel free to reach out to any of the team members. More information will be available on MAA Connect soon. We have some updates related to our Educational Mathematics PhD program. Dr. Jennifer Zakotnik-Gutierrez completed her doctoral degree in Educational Mathematics in Spring 2020 and joined the Department of Mathematics & Statistics at Metropolitan State University. Dr. Alees Lee completed her doctoral degree in Educational Mathematics in Fall 2020 and joined the Department of Mathematics at Weber State University. Adam Ruff received 2020 TA-Teaching Award for his amazing teaching of various undergraduate mathematics and mathematics education courses.

We have three outstanding members of our department who are retired recently: Drs. Dean Allison and Steve Leth retired at the end of Spring 2020, and Dr. Ricardo Diaz retired at the end of Fall 2020. We thank them for their tremendous work for the field, School of Mathematical Sciences and University of Northern Colorado.

Gulden Karakok, UNC

#### University of Colorado, Colorado Springs

UCCS welcomed three new faculty members in Fall 2020:

Dr. Jordan Nikkel began his studies as an undergrad at Vanderbilt University, not knowing whether to pursue physics, computer science, or math. He grew a bit tired of the "pattern matching" approach that the curriculum in his physics classes seemed to be taking; at the same time, his Calc 3 and Linear Algebra classes were feeding his curiosity about WHY things worked. So Jordan wound up getting a double major in CS and math. He continued his PhD studies in math at Vanderbilt, and finished his degree in 2019. His research emphasis was in the area of geometric and combinatorial group theory. Jordan started teaching at Christian Brothers University before coming to UCCS.

Dr. Justin Cole began his journey to mathematics was via the "fallen engineer" route. Having grown up in Wichita, Kansas, Justin entered Wichita State University as a mechanical engineering major. Quickly realizing that he didn't really enjoy the engineering side,

but rather did enjoy the math and physics portions, he switched to a double major in those two. Justin continued at Florida State University in the Applied Math program. After earning his PhD, Justin spent four years at CU Boulder (partially supported by an Air Force Office of Scientific Research grant, plus teaching as a part-time instructor) before coming to UCCS.

Dr. Mark Tomforde had already had a long, distinguished career as a researcher, teacher, and community enhancer before coming to UCCS. Mark began at Gustavus Adolphus College, then headed off to Dartmouth, where he earned a PhD. The focus of his studies was on structures called C\*-algebras. After finishing his PhD, Mark had a 3-year postdoc at the University of Iowa and a 1-year position at the College of William & Mary before taking a tenure-track position at the University of Houston, where he spent 14 years on faculty prior to joining the UCCS this past August.

Additionally, we have two recent graduates from our PHD program:

Luke Harmon, Thesis Title: Lower Finite Modules over Commutative Rings with Identity Thesis Advisor: Dr. Greg Oman

Alyssa Ortiz, Thesis Title: Inverse Scattering Transform and Solitons for Square Matrix Nonlinear Schroedinger Equations Thesis Advisor: Dr. Barbara Prinari

Finally, a reminder that Greg Oman is the Problem Section editor for MAA's College Math Journal. Greg is a prodigious writer of interesting problems, but would be glad to have contributions from any RM Members as well at <a href="mailto:goman@uccs.edu">goman@uccs.edu</a>.

Gene Abrams, UCCS

#### **Black Hills State University**

The Black Hills State University School of Mathematics & Social Sciences in collaboration with the School of Education, recently revised our Master of Science in Curriculum and Instruction program to include an emphasis that requires 18 credits of graduate mathematics content courses in additional to 12 credits of graduate education courses. The purpose of this fully online emphasis is to provide a professional development opportunity for

practicing teachers that would allow them to meet the Higher Learning Commission requirements to teach credit bearing courses. The intent behind such a program is to help get more high school teachers qualified to teach general education courses like college algebra in their high school as an in-person class could be a better learning experience for many students than taking a dual-credit college algebra online.

This emphasis for the Master of Science in Curriculum and Instruction consists of: ED 703 Applying Learning Theory to Instructional Design

ED 744 Curriculum Development and Instruction

ED 748 Cultural and Linguistic Diversity in Schools

ED 790 Seminar

(6) MATH courses numbered 500 and above.

For more information on this program is available at:

https://www.bhsu.edu/Academics/Graduate-Programs/Curriculum-and-Instruction#

Daluss Siewert, BHSU

#### **Pikes Peak Community College**

The Math Department continues developing and refining co-requisite courses, with co-req courses running as pilots in MAT 120, 135, 107, and 103. Co-reqs are also in development for MAT 112 and 155. Additionally, an on-line co-

req class for MAT 103 is currently being developed. The department continues to collect and analyze student success data and is using those results to adjust our co-requisite program and promote student success. While it is too early for definitive statistics on results, preliminary assessment is positive.

Carrie Baldwin, co-chair of the Math Department, was selected by the college as PPCC Faculty of the Year for 2020. In addition to her teaching and co-chair assignments, Carrie also serves as an assessment coach, the departments online education coordinator, and as a developer of PPCC's equity training program. Her work on behalf of faculty, instructors, and students as our on-line coordinator is recognized with this honor.

And, after many years of incredible service to PPCC and our students, Shawna Mahan is retiring. Shawna has been a mainstay at PPCC and also very active with the MAA RM Section. She will continue to teach post-retirement, so we will still have the benefit of all her experience for a bit longer before her well-earned retirement.

Jeff Joles, PPCC

#### 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@ppcc.edu

## Service Opportunity - Awards Coordinator

Our section is looking for a new Awards Coordinator volunteer, to replace Dr. Jeremy Muskat starting August 1<sup>st,</sup> 2021. This is a 3-year position in the section. The Awards Coordinator serves to assist the Secretary/Treasurer on managing the nomination process and the proper distribution of the teaching awards. The two teaching awards for the section are: Burton W. Jones Distinguished Teaching Award (DTA) and the Early Career Teaching Award (ECTA). The main responsibilities of this position in our section are:

- Assist with recruiting nominations for the DTA and ECTA.
- Verify submitted nominations for completeness and accuracy.
- Coordinate with the Chair of the Awards Committee the award review process.
- Coordinate the logistics for the awards ceremony (banquet invitations, plaques, etc).

Although this is nominally an appointed position (by the section secretary), we would like to invite nominations (self-nominations are welcomed!). If you are interested in this role, or would like to nominate a colleague, please contact the section's Secretary/Treasurer, Mona Mocanasu, at <a href="mailto:mmocanas@msudenver.edu">mmocanas@msudenver.edu</a>, by no later than June 1st 2021.

## The 2021 Rocky Mountain Section Meeting April 16 - 17, 2021 - Virtual

#### **April 2021 Section Meeting is Going Virtual**

We are pleased to announce that the first ever Virtual Rocky Mountain Section Meeting will be held on **Friday, 4/16 and Saturday, 4/17**. Avoid the long drives, the spring snow storms, the hard hotel bed, and bask in all the great mathematics and camaraderie our community can offer to your screen!

#### **Plenary Speakers**

We are excited to have confirmed the following plenary speakers:

- Travis Kowalski, South Dakota School of Mines & Technology, Burton W. Jones Award Winner from 2019.
- Carol Schumacher, Kenyon College, Section Visitor
- Shelby Stanhope, United States Air Force Academy

#### **Contributed Paper Sessions: Proposals Invited**

If you would like to organize a contributed paper session, please email a brief description of your proposed session to the program chairs by **Friday, March 5**.

#### **Upcoming Meeting Deadlines**

Proposal to organize a Contributed Paper Session March 5

Abstract Submission April 1Meeting Registration April 12

The conference website will be available in early March with details on the meeting schedule, how to submit an abstract, and how to register for the meeting. Please be sure to check your email or MAA Connect for the latest conference updates.

Questions can be directed to either of the Program Chairs. Respectfully submitted,

Tracii Friedman Kyle Riley

tfriedma@coloradomesa.edu Kyle.Riley@sdsmt.edu

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

CCTM would like to start off by saying that the heavy lifting teachers are doing during a global pandemic is AMAZING!! We hope that you take a moment to thank them and nominate them for **CCTM Awards**. Teacher and Leader Award Nominations open January 25 and are **due by March 1**. To be nominated, a teacher must: (a) teach in the region from which they are nominated at the time of the nomination; (b) have taught students at least half-time for three years or more; and (c) have not previously received the CCTM Mathematics Teaching Award. An elementary nominee may be teaching mathematics in addition to other subjects in grades K-6. A secondary nominee should be in a middle school or high school, teaching grades 6-12, and teaching mathematics 50% of the time or more.

Also, consider nominating a teacher for the <u>Presidential Award for Excellence in Mathematics and Science Teaching</u>. Nominations are due by March 1 and applications are due by April 1.

As you know, CCTM has its journal, <u>CMT</u>, now housed at the UNC library. Please take a look at the articles published and consider writing one and encourage teachers to submit an article. We would love to hear about the amazing teaching that CO teachers are doing. Check <a href="https://digscholarship.unco.edu/cmt/">https://digscholarship.unco.edu/cmt/</a> for some submissions that might inspire you and others to write for the journal.

CCTM continues to offer a book study: *Taking Action* book study meeting. To register for the February book study meeting, check out <a href="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php?option=com\_jevents&Itemid=115&task="https://www.cctmath.org/index.php."https://www.cctmath.org/index.php.o



**CCTM Elections:** CCTM is opening nominations for Region representatives in Regions 2 & 5.

NCTM Conference - February 2021 Virtual Conference. Join your colleagues for the NCTM 2021 Virtual Conference, February 1–6—Reimagining Mathematics Education: Learning from the Past in Order to Move Forward. This virtual experience will offer more than 250 sessions, including live and on-demand learning opportunities along with individual and small-group networking, discussions, exhibits, and much more. Register now!

Don't forget to visit the new website and renew your membership: <a href="https://cctm.memberclicks.net/">https://cctm.memberclicks.net/</a> There will be updates regarding the annual CCTM conference on the website.

Gulden Karakok, UNCO MAA Representative on CCTM Board of Directors

## Section Nominating Committee Report Nominations for Section Chair Person Elect

The nominating committee is seeking nominations for the position of Chairperson elect for our section. This leadership position is vital to the organization and operation of the MAA Rocky Mountain Section. Nominations can be sent to Nathaniel Miller, nominating committee chair, at nathaniel.miller@unco.edu. Self-nominations are encouraged.

The Chairperson Elect serves one year as Chairperson Elect, two years as Chairperson of the section, and one year as Past Chairperson. In the first and fourth year the position includes the role of chairing our teaching awards committee and also being chair of the section activity grant award committee. As chair, the person elected would lead the executive committee and preside over all business meetings for the section. The chair is also responsible with appointing committee members to the standing committees.

Details of the duties for all three positions are described on page 1 of the Section Procedures Handbook: <u>sections.maa.org/rockymt/SectionProceduresHandbook.pdf</u>. Note: Elected officers of the section must be members of the MAA.

Respectfully submitted, The Nominating Committee

## **Section NExT-RM**

#### What is Section NExT-RM?

The Rocky Mountain Section of the New Experiences in Teaching program (NExT-RM) is a smaller scale version of the national Project NExT program serving the members of the Rocky Mountain Section of the MAA. The goals of Section NExT-RM are to support faculty in the first five years of their academic career and to establish links among faculty in the section.

#### Who is eligible?

Section NExT-RM is open to non-tenured faculty members in the Rocky Mountain Section who are within the first five years of teaching at a university, four-year college, or two-year college within the Rocky Mountain Section of the MAA.

#### What are my expectations as a fellow?

Section NExT-RM Fellows will remain in contact with one another via an electronic network, and are expected to attend the Rocky Mountain MAA Section meeting. In particular, they will take part in the planning of some of the Section NExT-RM sessions.

#### Does this cost me anything?

Section NExT-RM is a selective professional development program—an application is required. We will provide the fellows with lunch on Friday and Saturday of the work-shop, and expect fellows to obtain travel and the remaining funding (approximately \$150 for one night's hotel, registration, and banquet) from their departments or other sources.

The 2020 Section NExT-RM cohort was postponed due to the COVID crisis. With the ongoing pandemic, we hope to instead have the new cohort in Spring 2022.

Questions? Contact the Section NExT-RM Coordinators Mandi Schaeffer Fry, MSU Denver (aschaef6@msudenver.edu) or Rebecca Swanson, Colorado School of Mines (swanson@mines.edu).

## MAA Rocky Mountain Section Guidance for Speakers

The Rocky Mountain Section would like to offer the following suggestions, especially to first-time speakers (and first-time Zoomers), regarding preparation of a "virtual" 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.

#### **Virtual Presentations**

This year, all presentations will be delivered over Zoom.

Presenters should sign into the Zoom session for your talk 5-10 minutes before your talk actually begins, so that any technological issues may be addressed. It is advised that you familiarize yourself with Zoom and, if available, practice your talk on Zoom prior to your actual presentation.

A moderator will be assigned to facilitate each session of presentations. The moderator will introduce the speaker, act as "host" for the Zoom session, manage any screen sharing privileges, signal the end of the presentation, and ask for questions from the audience. At their discretion, the moderator may allow questions via the "chat" feature in Zoom, and may read such questions aloud.

You can use the "screen-sharing" capabilities of Zoom to present your talk using Power Point slides, PDF, or similar, which will greatly enhance the pace of a presentation. To avoid distraction, we recommend sharing only a single "window", rather than your entire screen. (However, it may be possible to share, e.g., an Adobe window, and then choose "full screen view" from inside of that Adobe window.)

#### **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 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 post-secondary institutions within 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

 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:
- 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;
- Include the criteria under which superior achievement in mathematics is to be recognized, together with the time and the manner of such recognition;
- 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.

#### **Meetings Calendar**

MAA Rocky Mountain Section Meeting (virtual)
April 16-17, 2021
NCTM annual meeting; Atlanta, GA
September 22-25, 2021
MAA MathFest; Sacramento, CA;
August 4-7, 2021

Joint Mathematics Meetings; Seattle, WA January 5-8, 2022 MAA MathFest; Washington DC; August 3-6, 2022 Joint Mathematics Meetings; Boston, MA January 4-7, 2023 MAA MathFest; Tampa, FL; August 2-5, 2023

#### 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)
Email Address
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
e en de la contentación de
Email Address
Telephone: Work Home Fax
Nominator's Signature

Nomination forms should reach Section Awards Coordinator 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://sections.maa.org/rockymt) 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

### **Early Career Teaching Award Nomination Form**

Name of Nominee (First name first)	lines of the less				
Email Address					
College or University Affili	ation	300 (ga 1955 300 (ga 1955 300 ) e 25 (jest 200 25 (jest 200 25 (jest 200 25 (jest 21 (zaz 25 (da) zaz 25 (da) zaz 25 (da) zaz entro a 32 (sentro a 32 (sentro a 32 (sentro a	12일 : 110 - 100   12일 : 110 - 110 - 110 - 110 - 110 - 110 - 110 - 110 - 110 - 110 - 110 - 110 - 110 - 110 - 1 2일 [대한 역사 (대한 기계 전체 기계 대한 기		
College or University Add	ress	(2014년) 동화학 전기 (2015년) (2014년) (2014년) 2월 19일 - 1일 (2014년) (2014년) (2014년) (2014년) 2014년 - 1일 (2014년) (2014년) (2014년) (2014년)	:		
	City	State	_ Zip		
Is the nominee a member	of the MAA?				
Has the nominee taught a for at least two but not mo		nematical science	1500 - Afge 41 Ene Afge 41 Ene Afge 1		
On a separate page, brief nominee that contribute to				essional qualities	of the
Name of Nominator) (First name first)					
Address of Nominator					
	<u> </u>				
Email Address					
Telephone: Work	Home		Fax		
Nominator's Signature		(2004) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	\$25 km (0 a) \$25 km (0 a) \$25 km (0 a) \$25 km (4 km (0 a) \$25 km (0 a) \$25 km (0 a) \$25 km (4 km (0 a) \$25 km (0 a)		

Nomination forms should reach Section Awards Coordinator by December 15 of each year. Complete nomination materials should reach Section Awards Coordinator by January 15 of each year.

Please consult the Section webpage (http://sections.maa.org/rockymt) 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
- unit del terro del terr
- 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 success, 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), 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**

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.

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.

MAA Rocky	Mountain Section Voluntary Dues Contribution Form
Name	za ka džajka džaj Jiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiuli Jiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiulimojiuli
Address	ZIP
Please indicate in the	space provided how you would like your dues to be used:
이 한국을 하시되어는 이 한국을 하시되어는 한국을 하시되어는 중국을 하시되어 중심한 중심한 중심한 경험 등록 하시되어 중심한	Undergraduate Student Initiatives Graduate Student Initiatives
	Teaching Award Fund (Burton W. Jones DTA and ECTA) Section Activity Grant Program
	Wherever needed most
	Other: TOTAL DUES PAID (\$10 recommended)
Mona Mocanasu MAA Rocky Mount	tain Section Treasurer/Secretary University of Denver
	thematical and Computer Sciences PO Box 173362

## 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  $\pi$ ; 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."