

Fall 2015 Newsletter

SIG/RME Executive Board

Co-Chairs

Janine Remillard
University of Pennsylvania
2014 – 2016

Ilana Horn
Vanderbilt University
2015 – 2017

Treasurer

Anita Wager
University of Wisconsin-Madison
2014 – 2016

Communications

Hala Ghouseini
University of Wisconsin-Madison
2015 – 2017

Electronics

Meghan Shaughnessy
University of Michigan
2015 – 2017

Awards

Victoria Hand
University of Colorado Boulder
2014 – 2016

Events

Paula Guerra
Kennesaw State University
2015 – 2017

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SIG/RME Election

The time for the SIG/RME officer elections is approaching. This year, we are electing three Board positions: (1) Co-Chair, (2) Treasurer, and (3) Awards board members for terms to run from April 2016– April 2018. The duties of officers are summarized below and also posted on the SIG/RME website (www.sigrme.org). The biographies of the candidates appear below. SIG/RME members will receive instructions for the electronic voting procedure in an email from AERA in early January.

Officer Candidate Biographies

Co-Chair Position Description

The co-chair serves for two years, first as the junior and then senior co-chair. The senior co-chair presides over meetings of the executive board and at the membership during the SIG annual business meeting. In addition, each co-chair has specific duties related to conference organization. During the first year of service, the co-chair's primary responsibility involves liaising with the NCTM Research Committee to plan the NCTM Research Conference, including determining speakers for the opening and plenary addresses. During the second year of service, the co-chair's responsibilities include: general administration of the SIG/RME, serving as the program chair for the SIG/RME sessions for the AERA annual meeting, and liaising between the SIG and AERA. For a full description of duties, see <http://www.sigrme.org/duties.htm>.

Candidates for Co-Chair

Melissa Boston is an Associate Professor in the School of Education at Duquesne University (Pittsburgh, PA), where she teaches mathematics content and pedagogy courses for preservice secondary mathematics and elementary teachers. Melissa developed the Instructional Quality Assessment (IQA) Mathematics Toolkit, a set of rubrics for analyzing mathematics teachers' instructional practices via classroom observations and collections of students' work. Melissa was awarded the Association of Teacher Educators' 2008 Distinguished Dissertation Award for her dissertation research on teachers' learning and instructional change following participation in a professional development workshop. Melissa has published articles in *Elementary School Journal*, *Journal of Mathematics Teacher Education*, *Journal for Research in Mathematics Education*, *ZDM: International Journal of Mathematics Teacher Education*, *Journal of Mathematics Education Leadership*, *Urban Education*, and *Mathematics Teaching in the Middle School*. She has also published book chapters connecting research to practice, and she assisted in developing the professional development materials, *Improving Instruction in Mathematics: Using Cases to Transform Mathematics Teaching and Learning*. Melissa has served on the NCTM "Student Explorations in Mathematics" committee (member, 2007-2008; Co-Chair, 2009), Editorial Panel of the NCTM *Annual Perspectives in Mathematics Education* (2015), and Associate Editor of *Mathematics Teacher Educator* (2012-2015). Melissa is currently Series Editor for the 2017-2019 NCTM *Annual Perspectives in Mathematics Education* and an external evaluator for two Mathematics-Science Partnership (MSP) grants. In her research, Melissa examines instructional quality in mathematics through classroom observations and students'

work, with current interests in the intersection of cognitive demands with 1) instructional technology and 2) equitable mathematics instruction.

Ruth Heaton is the Gilmartin Professor of Mathematics Education at the University of Nebraska-Lincoln (UNL). Ruth's scholarship is focused on increasing the mathematical and pedagogical capacities of teachers to improve the learning of students in preschool through grade 8, especially students considered most at-risk of school failure. In the context of several school-university partnerships and university interdisciplinary collaborations Ruth has developed, she is studying the learning of teachers as well as math coaches and elementary administrators as they learn how to support teachers as learners. Ruth has published articles in numerous journals, including *Elementary School Journal*, *Journal of Mathematics Teacher Education*, *Mathematics Teacher Educator*, and *Notices of the American Mathematical Society*, as well as a book, *Teaching Mathematics to the New Standards: Relearning the Dance*, with Teachers College Press. Additionally, Ruth has been PI or co-PI on grants totaling over \$15.3 million from NSF and another \$7.4 million primarily from private foundations to create professional development for teachers of mathematics from preschool through grade 8 and study the impact on teachers' and students' learning. Ruth recently served as a member of the Editorial Panel for the *Journal for Research in Mathematics Education* and was the Secretary/Treasurer for the Rural Education Special Interest Group of AERA. At the University of Nebraska-Lincoln, Ruth works in close collaboration with faculty in the Department of Mathematics to prepare prospective teachers in a program that integrates math content, pedagogy, and field experience.

Treasurer Board Member Position Description

The Treasurer shall be responsible for managing and reporting on the financial accounts of the SIG/RME and the safe keeping of all financial documents of the SIG/RME. For a full description of duties, see <http://www.sigrme.org/duties.htm>.

Candidates for Treasurer Board Member

Mariana Levin is an Assistant Professor of Mathematics Education in the Department of Mathematics at Western Michigan University. She earned her Ph.D. in Mathematics Education and her M.A. in Mathematics from University of California, Berkeley and was a postdoctoral fellow in the Program in Mathematics Education (PRIME) at Michigan State University from 2012-2015. Her work is on mathematical thinking and learning processes particularly around critical transitions in students' experience (algebra, in her dissertation work, and more recently proof at the collegiate level). Her work has been published in the *Journal of the Learning Sciences*. She co-organized a research conference (funded by the AERA Educational Research Conferences Program) on possibilities for synergy and dialogue between cognitive and situative perspectives in analyses of learning interactions in mathematics and science. The conference led to the research volume "Knowledge and Interaction: A Synthetic Agenda for the Learning Sciences" (co-edited by diSessa, Levin & Brown) that will be published by Taylor and Francis in 2015. From 2012-2015 she was the treasurer for the AERA Special Interest Groups Learning Sciences and Advanced Technologies for Learning.

Paul J. Weinberg is an Assistant Professor of Mathematics and Science Education at Oakland University (Rochester, MI), where he teaches methods courses for pre- and in-service secondary mathematics teachers. In addition, he teaches mathematics content courses, in the Department of Mathematics and Statistics, for elementary education majors. Paul's research focuses on students' mathematical and scientific reasoning in the context of schooling. He is interested in ways of characterizing and developing epistemic and disciplinary practices (e.g., proving) in K-12 mathematics and science classrooms in order to promote and support disciplined inquiry (e.g., Lehrer, Kobiela, Weinberg, 2013). He has published his research in *Cognition and Instruction* and *ZDM: The International Journal on Mathematics Education* as well as coauthored *The First-Year Urban High School Teacher*. He received a doctorate, with a focus on Mathematics and Science Education, from Peabody's College of Education and Human Development at Vanderbilt University.

Awards Board Member Position Description

The Awards Board Member is responsible for managing the process for soliciting nominations for awards and serving on the committee to decide on award recipients. The Awards Board Member is responsible for coordinating the award events at NCTM and the SIG/RME at AERA. For a full description of duties, see <http://www.sigrme.org/duties.htm>.

Candidates for Awards Board member

Theodore Chao is an assistant professor of mathematics education at The Ohio State University. Prior to his appointment at Ohio State, Dr. Chao was a postdoctoral research fellow at the Harvard Graduate School of Education. He completed his PhD in 2012 at The University of Texas at Austin. Dr. Chao's research focuses on how visual images open up spaces for discussion and reflection of mathematics teaching, using mobile apps to facilitate teachers' noticing of children's thinking and photovoice interviews to explore the intersection of math teaching with gendered, racial/ethnic, class, and sexual identities. He is particularly interested in how technology in mathematics teacher education gives voice to the oppressed. Dr. Chao was recently awarded his second IES research grant to study a visual technology interface for elementary teachers to notice children's strategies and orchestrate rich classroom discussions. Dr. Chao has presented his research at numerous international conferences such as AERA, EARLI, PME-NA, AMTE, *Creating Balance in an Unjust World*, and *Free Minds Free People*. He is the co-editor of the *Postscripts* section of *Teaching Children Mathematics*. He also regularly reviews for journals in mathematics education, teacher education, and elementary education.

Imani Masters Goffney is an Assistant Professor of Mathematics Education at the University of Houston. She has a BA degree from Spelman College and a Masters degree from the University of Michigan. She also earned her PhD in Mathematics Education and Teaching and Teacher Education from the University of Michigan. Her research focuses on mathematics instruction and on interventions designed to improve its quality and effectiveness, especially for students not traditionally served well by our educational system. In particular, she studies the ways in which teachers use mathematical knowledge for teaching in equitable ways. Her research contributes to a growing body of work that strives to better understand the role of content knowledge for improving student achievement and

expands an understanding of how issues of race, culture, and social class intersect with students' opportunities for learning mathematics. She was awarded and serves as Principal Investigator for an National Science Foundation Discovery Research K-12 grant entitled "Mathematical Knowledge for Equitable Teaching: Exploring opportunities to enable pre-service teachers to develop ambitious and equitable teaching practices." She was recently awarded a grant from the Greater Texas Foundation (<http://greatertexasfoundation.org/gtf-announces-2015-class-of-gtf-fellows/>) for her grant entitled, "The Quest for College Readiness for All Students in Mathematics Begins with Elementary Teacher Preparation." She also serves as Co-Director for the Master Mathematics Teacher Certification Program, Co-Director for Research for the iSMART grant, and as the Mathematics Education Program Area Coordinator at the University of Houston.

NCTM 2016 Research Conference Information

<http://www.nctm.org/researchconf/>

The Research Conference is sponsored by the NCTM Research Committee and the Special Interest Group on Research in Mathematics Education of the American Educational Research Association. The NCTM Research Conference this academic year will be held on April 11-13, 2016, in San Francisco at the Moscone Convention Center.

The NCTM Research Conference serves multiple purposes. First, it brings researchers together annually to examine and discuss current issues in mathematics education. Second, provides a chance for researchers to receive feedback on their work and to benefit from exposure to alternative points of view. Third, the Research Conference offers an opportunity to capitalize on the collective wisdom available when researchers and practitioners come together to discuss mathematics education and research. Finally, the Research Conference affords beginning scholars opportunities to interact and network with veteran researchers in the field.

There were 373 proposals submitted for the NCTM Research Conference, including 195 Brief Research Reports, 60 Interactive Paper Sessions, 24 Research Symposia, 49 Discussion Sessions, and 45 Poster Sessions. Of these, 218 proposals were accepted for an overall acceptance rate of 58.4%. Some sessions were reclassified by the program committee. The final program for the NCTM Research Conference will be available in February 2016 through NCTM's website at <http://nctm.org>.

Pre-registration for the Research Conference is also available electronically through NCTM's website at <http://www.nctm.org/researchconf/>. On-site registration will also be available. For more information on registration costs, please consult the NCTM website.

The **opening plenary session** will take place on Monday, April 11, 2016 from 5:30-7:00 pm. **Cynthia Langrall** will be the speaker. The **research conference plenary session** will be on Wednesday, April 13 from 10:15-11:15 a.m. **Brent Davis** will be the speaker. The Reception will take place in conjunction with the Poster Session on Tuesday, April 12 from 5-6:00 pm. There will be concurrent sessions from 8:30 a.m. to 6:00 p.m. on Tuesday, April 12, and from 8:30 a.m. to 4:00 p.m. on Wednesday, April 13. Wednesday sessions will be open to anyone registered for the 2016 NCTM Annual Meeting.

AERA 2016 Annual Meeting Information

<http://www.aera.net/EventsMeetings/AnnualMeetin/tabid/10208/Default.aspx>

The 2016 AERA Annual Meeting will be held Friday, April 8, through Tuesday, April 12th, 2016, in Washington, DC. The theme is “*Public Scholarship to Educate Diverse Democracies.*”

This year, we received a high number of proposals. There were 169 proposals submitted to SIG-RME, 13 symposium proposals and 156 individual proposals. We are very grateful to 65 reviewers who reviewed the proposals, including a number who agreed to review additional proposals late in the process. We received over 500 reviews. The SIG received an allocation of 14 sessions for symposia or paper sessions and 52 individual paper presentations that could be grouped into roundtable or poster formats. Symposia and papers that received very strong ratings and at least 3 accepts were accepted as proposed. Strongly reviewed papers that did not receive top ratings and at least 3 accepts were accepted in round table sessions or as posters, unless the proposer did not agree to an alternative format. See the table below for a summary of submissions and accepted proposals.

	Symposia	Papers	RT or posters
Submitted	13	154	2
Accepted	8	28	45

Information about the Membership Meeting

SIG-RME will hold its annual membership meeting during AREA. We have requested that the session be scheduled for Saturday, April 9, 6:30-8:30, to accommodate members who plan to travel to San Francisco for the NCTM Research Conference.

We are excited to announce that the membership meeting will include a panel discussion on *Ensuring that All Students Have Access to High Quality Mathematics Teaching*. We have invited three panelists who bring different perspectives to this challenge faced by our community: **Robert Berry III**, **Jo Boaler**, and **Amanda Datnow**. We anticipate that their comments will prompt a lively discussion.

As usual, the meeting will also include a reception and short business meeting. We encourage all members to attend.

ICME-13

ICME-13 will take place at the University of Hamburg, Germany from Sunday, July 24 to Sunday, July 31, 2016. For further information on the ICME-13 conference, please visit: <http://icme13.org> or email: assistance.icme13@uni-hamburg.de

Jean Piaget Society

The Jean Piaget Society 46th Annual Meeting will be held Thursday, June 9 - Saturday, June 11, 2016, in Chicago, IL. The theme is “*Places & Spaces in Children’s Lives.*” The meeting typically includes a lot of papers related to mathematics. Its goals include examining (1)

theoretical models and empirical work that illuminate how physical environments affect development; (2) ways that children understand, represent, feel about, and use various physical environments; and (3) identifying how responses vary across differing environmental qualities and programs. Submissions need to address the conference theme and can be related to any topic in the study of knowledge and development. The deadline is **December 15, 2015**. For more information see: www.piaget.org

STaR Program for Early Career Mathematics Educators

The Service, Teaching and Research (STaR) Program is now accepting applications for the 2016 cohort, which will meet in Park City, UT June 11-16, 2016. The STaR program is open to faculty members who are in their first or second year of a tenure-track appointment at a US institution at the time of application. The program provides an opportunity for early career faculty members to develop a network of peers and to interact with more experienced colleagues around issues of service, teaching, and research. Please encourage eligible mathematics education faculty members to apply at <http://amte.net/star/apply> by December 1, 2015. Decisions will be announced by January 31, 2016.

The STaR program is funded through the generous support of various professional organizations (including AMTE, AMTE state affiliates, NCTM, and SIG/RME) and private foundations. The program has supported six cohorts of 207 early career mathematics educators since 2010. These STaR Fellows and the 2015 institute co-directors (Jeffrey Wanko and Denise Spangler) are happy to answer questions from prospective applicants.

The future of the STaR Program is dependent on donations to ensure the future of this vibrant program. Of significance is the fact that over half of the STaR Fellows have contributed to the AMTE STaR fund. In particular, the 2105 cohort pledged \$1500 to sponsor a Fellow in 2016. If you wish to make a donation, you can do so via the AMTE web site: <http://amte.net/civicrm/contribute/transact?reset=1&id=13>.

SIG/RME Website

Please check our website at <http://www.sigrme.org> for information related to SIG/RME announcements, positions available, upcoming conferences, and much more.

If you have any information you think should be posted on the SIG/RME website, please contact Meghan Shaughnessy at mshaugh@umich.edu. The SIG/RME Annual Membership Directory is available on the SIG/RME website. Please check your contact information in the current directory by checking the electronic directory on the SIG/RME website. **(The user ID is math, and the password is SIGRME.)**

Membership Dues and Contact Information

Remember to renew your SIG/RME membership when you renew your AERA membership. SIG/RME dues are processed by AERA, making membership periods the same for both AERA and the SIG. All SIG-RME members must also be active members of AERA.

If your mailing address or other contact information is incorrect, please update your contact information through the AERA website.

Call for Early Career Publication Award Nominations

In 2001, the Special Interest Group for Research in Mathematics Education established the "SIG/RME Early Career Publication Award." The first award was presented in 2002. The purpose of the Early Career Publication Award is to recognize an outstanding mathematics education research publication by an individual within five years of receiving her/his doctoral degree. The award includes a stipend of \$500, announcement in the SIG/RME newsletter and on the SIG/RME website, recognition at the annual NCTM Research Conference, and recognition at the SIG/RME Member Meeting. The most recent awards were presented to Dr. Charles Hohensee and Dr. Katherine Lewis.

Nomination Guidelines

- The publication being nominated for the SIG/RME Early Career Publication Award may be based on the dissertation work of the nominee or other recent research the nominee has conducted. The nominee should be either the single author or the first author (in the case of a jointly authored paper) and the contributor of the majority of the work done on the paper. Only peer reviewed research publications are eligible for nomination; the award will not be given for a dissertation. The nominee should have received his/her doctoral degree in mathematics education no earlier than 6 years prior to the nomination deadline (i.e., no earlier than January 2010 for this year's nomination). The publication being nominated will be judged according to the following criteria: significance of research; relevance and timeliness of research question; and quality and rigor of research.

Nomination Packets

- Nominations should include (and are restricted to) 2 copies of the following:
 - A letter nominating the author of an early career publication. Please include the name of the author, the date he/she received the doctoral degree, and the name of the institution that conferred the degree. The nominator should also include reasons that the paper should be considered as an example of an outstanding mathematics education research publication. If the article is based on the author's dissertation, please include the name of the dissertation director and complete bibliographic information about the dissertation including the dissertation abstract's number. (Self-nominations are allowed.)
 - A copy of the published paper, including complete bibliographic information;

- A copy of the Table of Contents of the journal or other peer reviewed research publication in which the paper appeared.

Nominations will be considered by a sub-committee of the Executive board, consisting of the Awards, Events, and Electronic Board Members. The decisions of that committee will be final. Please send nomination materials **no later than January 15, 2016** to Victoria Hand at Victoria.Hand@Colorado.edu. **Electronic submissions are required.**

Important Dates

2015

November 5-8

37th Annual Psychology of Mathematics Education - North American chapter (PME-NA 37), East Lansing, Michigan (<https://pmena2015.org/>)

2016

January 15

Nominations for Early Career Publication Award Due
(Victoria Hand, Victoria.Hand@Colorado.edu)

January 28-30

Association of Mathematics Teacher Educators (AMTE) Annual Meeting
Irvine, CA (<http://www.amte.net>)

February 25-27

Conference on Research in Undergraduate Mathematics Education (RUME)
<http://sigmaa.maa.org/rume/crume2016/>

April 8-12

AERA Annual Meeting in Washington, DC (<http://www.aera.net>)

April 11-13

NCTM Research Conference in San Francisco, CA (<http://www.nctm.org>)

April 13-16

NCTM Annual Meeting in San Francisco, CA (www.nctm.org)