SIG/Research in Mathematics Education
American Educational Research Association
http://www.sigrme.org

Fall 2009 Newsletter

SIG/RME Executive Board

Co-Chairs
James Middleton
Arizona State University
2008-2010

Arthur B. Powell
Rutgers University
2009-2011

Treasurer
Amanda Jansen
University of Delaware
2008-2010

Communications
Despina Stylianou
The City University of New York
2009-2011

Electronics
Indigo Esmonde
OISE, University of Toronto
2009-2011

Awards
Corey Drake
Iowa State University
2008-2010

Events
Jeffrey Shih
University of Nevada, Las Vegas
2009-2011

What's Inside

SIG/RME Election

The time for the SIG/RME officer elections is approaching. The biographies of the candidates appear below. SIG/RME members will receive instructions for the new voting procedure is an email. Information will also be posted on the SIG/RME website (www.sigrme.org).

Officer Candidate Biographies

Co-Chair Position Description

During the first year of service, the co-chair is responsible for: liaising with the NCTM Research Committee, reviewing proposals for the NCTM Research Pre-session, determining speakers for the AERA annual business meeting invited address, and the NCTM Pre-session opening and closing addresses.

During the second year of service, the co-chair is responsible for: general administration of the SIG/RME, ensuring bylaws are followed, and liaising between the SIG and AERA. The co-chair will preside over all meetings of the executive board and at the SIG annual business meeting. For a full description of duties, see http://www.sigrme.org/duties.htm.

Candidates for Co-Chair

Jinfa Cai is a Professor at the University of Delaware. He is primarily interested in students' learning and mathematical problem solving. He has received funding to support his research from various funding agencies, such as NSF, Department of Education, and Spencer Foundation. He is currently Principal Investigator for a $2.4 million NSF research grant to longitudinally investigate the effect of curriculum on student learning of algebra. His work has been published in various research journals, such as *JRME, ESM, JMB, MTL, JMTE, & ZDM.* In addition, Dr. Cai is the author of the JRME's 7th Monograph, and a co-editor of three books.

Dr. Cai has served on the Executive Board of SIG-RME (2000-2002) and served (or is serving) on the Editorial Boards of several international journals. Dr. Cai is a regular reviewer for the NSF, and he has been a consultant for several projects and institutions. In addition, Dr. Cai has also served on various roles in several school systems around the country, including the Board Member of Wilmington Charter School in DE, Core Team Member of Strategic Planning for Radnor School District in PA, an External Reviewer of State Mathematics Framework in AZ, and Teacher Resource Partner at Edison Middle School in Wisconsin.

Dr. Cai has been a visiting professor in several institutions, including Harvard University (2000-2001). He received numerous awards, including Spencer Fellowship, Teaching Excellence Award, and American Council on Education Fellowship. He also served as the President of Faculty Senate at the University of Delaware.

Laurie Rubel is an Associate Professor in Mathematics Education at Brooklyn College (CUNY) and is also on the Doctoral Faculty of CUNY Graduate Center. Dr. Rubel was a high school teacher for 9 years who earned a PhD at Teachers College, Columbia University and was a postdoctoral fellow at the University of Wisconsin-Madison. Rubel now teaches courses on mathematics curriculum and pedagogy as well as action research. Her research interests include mathematics teacher education, equity in mathematics education, and probabilistic reasoning. Rubel has published articles in a range of outlets, including the Journal for Research in Mathematics Education and Mathematical Thinking & Learning.

Dr. Rubel's scholarship and teaching have been recognized with several notable awards. She was the recipient of the Knowles Science Teaching Foundation Research Fellowship in 2006 and her college's Excellence in Teaching Award in 2007. Rubel also received funding from the National Science Foundation, as a Faculty Early Career Award, in 2008.

In service to the research in mathematics education community, Dr. Rubel regularly serves as a reviewer for the array of research conferences and of manuscripts for both research and practitioner journals. She has recently held a variety of leadership positions: In 2007, she co-chaired (with Karen King) AERA's Division C Section 3. She was appointed to the Division C Section 3 Review Board again in 2008 and to the Division K Section 1 Review Board in 2009. She is also a frequent reviewer of proposals for the National Science Foundation.

Secretary/Treasurer Position Description

The Secretary/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. The Secretary/Treasurer also maintains and updates the membership list for the SIG. For a full description of duties, see http://www.sigrme.org/duties.htm.

Candidates for Secretary/Treasurer

Tonya Bartell is an Assistant Professor of Mathematics Education at the University of Delaware. She earned her Ph.D. from the University of Wisconsin,

Madison, and was a fellow in the Diversity in Mathematics Education Center for Learning and Teaching (DiME). One publication coming from her DiME work includes a chapter in the *Second Handbook of Research on Mathematics Teaching and Learning* focused on culture, race, and power in mathematics education. Her own research examines teachers learning to teach mathematics for social justice. One publication from this line of work is forthcoming in an issue of JRME focused on equity.

Currently, Dr. Bartell is collaborating at the national level on two projects – the Mathematics in the Public Interest project examining curriculum development in mathematics content courses around mathematics for social analysis and the TEACH MATH project focused on preparing preK-8 teachers (PSTs) to connect children's mathematical thinking and community-based funds of knowledge. Also, Dr. Bartell is an active researcher in the Mid-Atlantic Center for Teaching and Learning, where her research has focused on developing PSTs' skill in recognizing evidence of children's conceptual understanding of mathematics. Some of her scholarship as a part of MAC-MTL has been published in the *Elementary School Journal.* Dr. Bartell has presented her work from these various projects at AERA, NCTM, and PME-NA.

Dr. Bartell has taught a range of undergraduate and graduate courses in mathematics education, including elementary and middle school methods, mathematics content courses for PSTs, and graduate research courses in mathematics education.

Vanessa R. Pitts Bannister is an Assistant Professor of Mathematics Education at Virginia Tech. At Virginia Tech, she teaches secondary methods courses and a course on diversity and equity issues (in mathematics education) and is the program leader of the secondary mathematics licensure program. Vanessa is currently a Co-PI of an NSF-funded study of pre-service secondary mathematics teachers' interactions with reform curriculum materials in undergraduate mathematics courses. In addition, she is a Co-PI of an NSF-funded Robert Noyce Teacher Scholarship Grant. Before her tenure at Virginia Tech, she completed a postdoctoral fellowship with the Diversity in Mathematics Education (DiME) Project at the University of California at Berkeley. Her research interests include teacher and student knowledge in areas of algebra and rational numbers, teachers' pedagogical and content knowledge with respect to curriculum materials, and equity and diversity issues in mathematics education. Vanessa is an active member of and frequently presents her work at NCTM, PME-NA, and AMTE. Vanessa has published in NCTM publications such as *Mathematics Teaching in the Middle School*, *Empowering the Beginning Teacher of Mathematics*, the 2010 Yearbook and *Second Handbook of Research on Mathematics Teaching and Learning* (in collaboration with members of the DiME Project).

Awards Board Member Position Description

The Awards Board Member is responsible for managing the process for soliciting nominations for awards, selecting a committee for reviewing nominations, and serving on the committee to decide on award recipients. S/he is responsible for coordinating the purchase of plaques to present to award members. For a full description of duties, see http://www.sigrme.org/duties.htm.

Candidates for Awards Board Member

Amy Ellis is an assistant professor of mathematics education in the department of Curriculum and Instruction at the University of Wisconsin-Madison. Dr. Ellis studies students' reasoning, particularly as it relates to mathematical generalization, justification and proof, and the development of algebraic thinking. Her current research is supported by three NSF-funded projects that focus on a) examining the ways in which classroom environments influence students' mathematical generalizations, b) studying students' inductive and deductive reasoning about problems in mathematics and the natural world, and c) analyzing state assessment data to study girls' and boys' performance on mathematics items. Dr. Ellis was recently awarded the AERA SIG-RME Early Career Publication award for her work on the connections between generalization and justification in algebra.

Dr. Ellis formerly taught middle school and high school mathematics, and at the University of Wisconsin she enjoys teaching a range of undergraduate and graduate courses in mathematics education, including secondary methods courses for prospective teachers and doctoral courses on learning theories and qualitative methods. Dr. Ellis' research has been published in journals such as the Journal for Research in Mathematics Education, Cognition and Instruction, the Journal of Mathematical Behavior, Mathematical Thinking and Learning, and Mathematics Teaching in the Middle School. She has presented her work at AERA, the NCTM research pre-session, and PME-NA. She serves as a reviewer for journals (e.g. JRME, JLS) and conferences (e.g., AERA, PME-NA), and is a member of the editorial board for Division C3 for AERA.

Joanne Lobato is a Professor of Mathematics Education in the Department of Mathematics and Statistics at San Diego State University (SDSU). Her research interests include the generalization (or transfer) of learning, algebraic thinking, design-based research methods, and the multiplicative reasoning of both students and teachers. She is currently PI on an NSF grant investigating the role of noticing in the generalization of mathematics learning to novel situations. This work has been conducted through a series of research studies in local middle schools. She is Co-PI on a second NSF grant to develop assessment measures of middle school teachers' multiplicative reasoning. Dr. Lobato serves as the transfer strand editor for the *Journal of the Learning Sciences* and is on the

editorial board for *Mathematical Thinking and Learning*. Her work has been published in *Journal for Research in Mathematics Education, Educational Researcher*, *Mathematical Thinking and Learning*, *Journal of the Learning Sciences*, and *Journal of Mathematical Behavior*. She has presented her work widely, including invited addresses at international research symposia in China, South Korea, Denmark, and Cyprus.

As service to the mathematics education community, Dr. Lobato is an editor for an initiative from the National Council of Teachers of Mathematics to translate research into practice. She is also lead author of a book in NCTM's recent *Essential Understandings* series for K-12 teachers. Dr. Lobato directs the nationally-recognized Ph.D. program in Mathematics and Science Education, operated jointly by SDSU and the University of California at San Diego.

NCTM Research Pre-Session Information

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

NCTM has adopted Linking Research and Practice as a priority for the Council. The Annual Meeting strengthens the links between research and practice in the Council's ongoing work. It will be held in San Diego, California, April 19-21, 2010.

There were 243 proposals submitted for the pre-session, including 133 for Individual Sessions, 32 for Research Symposia, 21 for Work Sessions, and 57 for Poster Sessions. Of these 115 proposals were accepted, including 44 for Individual Sessions, 23 for Research Symposia, 17 for Work Sessions, and 31 for Poster Sessions. The final program for the NCTM Research Pre-session will be available January 2008 through NCTM's website at http://nctm.org.

Pre-registration for the Research Pre-Session is also available electronically through NCTM's website at http://nctm.org. On-site registration will also be

available. For more information on registration costs, please consult the NCTM website.

The **opening session** is Monday, April 19th at 7pm. There will be **concurrent sessions** from 8:30am to 6:00pm on Tuesday, April 20st, and from 8:30am to 4:45pm on Wednesday, April 21st.

A **plenary session** on Wednesday morning, April 22, will highlight the theme, Linking Research and Practice. Sessions including individual papers, research symposia, and work sessions will be scheduled, allowing members of the National Council of Supervisors of Mathematics (NCSM) and other practitioners interested in research to attend. These sessions will focus on the interface between practice and research.

AERA Information

The 2010 AERA Annual Meeting will be held Friday, April 30, through Tuesday, May 4, in Denver, Colorado. The theme is *Understanding Complex Ecologies in a Changing World*.

There were 140 proposals submitted to SIG/RME; 14 for Symposium Proposals and 123 Individual Paper proposals fit the requirements. Hence, SIG/RME received an allocation of 14 sessions for papers or symposia, 27 sessions for Roundtables or Poster sessions, as well as our annual Business Meeting. Eight of the symposia (57%) and 59 of the paper proposals (48%) were accepted. Thirty-two papers were rated 4 or higher and were assigned to paper sessions and the remaining 27 that were rated between 3 and 4 were assigned to poster or roundtable sessions. For program details as well as information regarding registration for the Annual Meeting and lodging, please consult the AERA website at http://aera.net/. Pre-registration will be made available electronically at the AERA website in early December. On-site registration will also be available.

During our annual Business Meeting, we will host a performance piece created by Mary Q. Foote and Tonya G. Bartell, entitled "Where ever you go, there you are: Bringing experiences to research on equity in mathematics education". A general description of the performance is given below.

Abstract: Life experiences guide our research behavior in every moment. We store our life experiences, attitudes, values, and beliefs in stories, not in detached lists of facts and figures. The inter-related stories which will now unfold, paint a collective portrait of the lived experiences that connect their tellers to issues of equity and diversity in mathematics education research. To attend to these issues, we must not only be aware of what knowledge is produced through research, but we must also understand that the researchers producing that

knowledge are located within a particular social, economic, and political context of society. The lens that researchers bring to their work, and the personal experiences through which that lens is polished, is critical at each step in the research process. Experiences in the community and at home with our families of origin are important in informing who we are.

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. The Annual Membership Directory can also be accessed through the website. (The user ID is **math**, and the password is **sigrme**.)

If you have any information you think should be posted on the SIG/RME website, please contact Indigo Esmonde at indigo.esmonde@utoronto.ca.

A new SIG/RME Annual Membership Directory is now 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.

If any changes need to be made to your contact information, please notify Amanda Jansen at jansen@udel.edu.

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 most recent award was presented to Dr. Amanda Jansen.

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 and a plaque, announcement in the SIG/RME newsletter and on the SIG/RME website, as well as at the AERA annual SIG/RME business meeting and recognition at the annual NCTM Research Pre-session.

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 publication). Note that only a peer-reviewed research publication is eligible for nomination; the award will not be given for a dissertation. The nominee should have received her/his

doctoral degree in mathematics education no more than 6 years prior to the nomination deadline.

Nominations should include (and are restricted to) the following items.

1. 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. Self nominations will be accepted.

   If the publication 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).

2. A copy of the paper, including complete bibliographic information.

3. 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 committee consisting of the Events, Awards, and Electronic Board Members of SIG/RME. The decisions of that committee will be final. Please send nomination materials **no later than January 15, 2010** to Corey Drake. **Electronic submissions to** cdrake@iastate.edu **are preferred.** Alternatively, you may submit **two copies** of the above items to:

> Corey Drake
> Iowa State University
> Department of Curriculum and Instruction
> E115 Lagomarcino Hall
> Ames, IA 50011

Call for Senior Scholar Award Nominations

The Special Interest Group for Research in Mathematics Education (SIG/RME) of AERA invites nominations for the Senior Scholar Award, to be presented at AERA 2010. This award recognizes and celebrates the programmatic research of a senior scholar within the field of mathematics education. The SIG/RME will present the award to an individual who is active in mathematics education research at the time the award is granted and who is nominated by members of the community as an exemplar in regard to the following two basic criteria. The nominee has

  • designed and carried out programmatic research that has been grounded

empirically and has contributed to the theoretical development of the field;
• developed the research capacity of the field, as attested to by the existence of a "school of thought" or intellectual heritage whose constructs and results are used regularly by others.

One or more of the following criteria can strengthen the nomination. The nominee has
also made
• major contributions to the broader field of educational research,
• a major impact to the practice of mathematics education at large.

Scholars worldwide can be nominated for this award and membership in AERA or SIG/RME is not required of the nominees. Self nominations are not accepted.

Nominations must include the following.

A letter of nomination e-mailed to the senior steering committee member proposing the name of the nominee and describing the grounds on which the nominee meets the requirements for the award. Three criteria should be addressed in the letter:

1. A brief (no more than 250-word) description of the program of research carried out by the nominee;
2. A list of significant publications representing the contributions described, and;
3. A list of scholars who have been significantly affected by the work of the nominee. The list of scholars may include, but need not be limited to, doctoral students who worked with the nominee. Include current contact information for the list of scholars.

Please email your nomination materials **no later than February 6, 2010** to Corey Drake at <cdrake@iastate.edu>

If you are unable to email the materials, please send **2 copies** to Corey at the following address:

> Corey Drake
> Iowa State University
> Department of Curriculum and Instruction
> E115 Lagomarcino Hall
> Ames, IA 50011

An awards committee composed of the senior co-chair, one retired scholar in mathematics education, the previous award winner, and two active members of

SIG/RME will review the nominations. The awardee will deliver the SIG/RME invited address at AERA 2010.

More information on the award, criteria and nomination procedures can be found at the SIG/RME's website: http://www.sigrme.org.

NOMINATIONS FOR *JRME* EDITOR

The Editorial Panel of the *Journal for Research in Mathematics Education* is soliciting nominations for the editorship of the journal. Self-nominations are welcomed. The *JRME* editor is appointed by the NCTM Board of Directors on recommendation of the Editorial Panel. The person appointed will serve as editor-designate for one year beginning May 2011 and will assume full editorial responsibilities approximately one year after appointment as editor-designate. The responsibilities include publication decisions and fiscal and editorial management of the editorial office.

A nominee should be an NCTM member with an outstanding scholarly record in mathematics education and demonstrated editorial, managerial, and leadership skills. NCTM provides financial support, including some funding toward released time and editorial staff. Institutional support, including matching released time from other duties, is essential.

Nominations, including name and complete contact information for the nominee, should be submitted by January 15, 2010 to the chair of the Editorial Panel, Denise Mewborn, dmewborn@uga.edu.

MEMBERSHIP DUES & CONTACT INFORMATION

A few years ago, a change occurred in our membership policy as dictated by AERA. You may now renew your SIG/RME membership when you renew your AERA membership. This way, your SIG/RME dues are processed by AERA, and your membership dates are always the same.

AERA has changed its membership procedures. All SIG-RME members must also be active members of AERA. (In other words, it is no longer possible to be a member of SIG-RME and not a member of AERA.)

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