



SIG/Research in Mathematics Education
American Educational Research Association
<http://www.sigme.org>

Fall 2004 Newsletter

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Important Changes Coming!!!

Beginning in May 2005, members will no longer receive a hard copy of the SIG/RME newsletter through U. S. mail unless they specifically request the hard copy. The newsletter will be available through the SIG/RME website. Each time a newsletter is posted, members will receive an email informing them of the newsletter's availability. Members can read the newsletter on-line or download it to have a hard copy.

Beginning in February 2006, members will no longer receive a hard copy of the SIG/RME Annual Membership Directory unless a specific request is made for the hard copy. As with the newsletter, members will be notified through email when the Annual Directory is available on the SIG/RME website.

Any member who would like to receive the SIG/RME newsletter and/or Annual Membership Directory in hard copy form rather than electronically should contact Rose Mary Zbiek at rmz101@psu.edu.

Remember to Vote for Officers

It's time for the SIG/RME officer elections. The biographies of the candidates appear below. You can vote electronically by going to the SIG/RME website (www.sigrme.org) or you can vote by using the ballot at the end of this newsletter. Either way, please vote! Ballots are due by January 1, 2005.

Officer Candidate Biographies

Co-Chair Candidates

Mike Shaughnessy

Mike Shaughnessy is a Professor in the Department of Mathematics and Statistics at Portland State University, Portland, Oregon. His principal research interests throughout his career have been in the teaching and learning of probability and statistics and the teaching and learning of geometry, along with a continued strong related interest in problem solving. Currently he is the principal investigator of a three-year NSF ROLE project to investigate middle and secondary students' conceptions of variability.

Dr. Shaughnessy has given over 140 national and international invited talks and workshops in Mathematics Education, and has authored more than 60 books and articles in Mathematics Education, principally in the areas of probability and statistics, and geometry. Among these publications are chapters on the teaching and learning of probability and statistics in the NCTM Handbook of Research in Mathematics Education and the International Handbook of Mathematics Education.

Dr. Shaughnessy has previously served on the editorial panel for JRME, (1987 – 1990) and is currently a member of the editorial panels for Mathematical Teaching and Learning, (MTL) and Mathematics Education Research Journal (MERJ). He recently completed a term on the Board of Directors of NCTM (2001-2004), and is currently working on several NCTM forthcoming publications. Most recently he chaired the editorial panel

and writing team for the new NCTM book *Navigating Probability, Grades 9-12*.

Margaret Schwan Smith

Margaret Schwan Smith is an Associate Professor of Mathematics Education at the University of Pittsburgh. Dr. Smith's primary interest as a mathematics teacher educator is in the professional education of teachers of mathematics. In this work she is taking seriously issues of teacher learning in an effort to add to the knowledge base of what good professional development is and how one does it. As such her work lies on the boundary between research and practice where she both conducts research and uses the findings of research as the basis for improved practices in teacher education and for new research.

Dr. Smith has authored a book entitled, Practice-Based Professional Development for Teachers of Mathematics (NCTM, 2001) which explores a particular type of professional development that connects the on-going professional development of teachers to the actual work of teaching. She is the lead author on three books of narrative cases to be published by Teachers College Press in fall 2004 that grow out of the work of the NSF-funded COMET (Cases of Mathematics Instruction to Enhance Teaching) Project.

Dr. Smith is currently the director of the NSF-funded ASTEROID project, which is studying what teachers learn from COMET cases and other practice-based professional development experiences and of the ESP project that is focusing on enhancing the preparation of preservice secondary mathematics teachers.

Recording Secretary Candidates

Maria Blanton

Maria Blanton is an Associate Professor of Mathematics Education in the Department of Mathematics, University of Massachusetts Dartmouth, where she teaches mathematics and mathematics education courses. Her research interests include (1) the development of algebraic thinking in elementary grades and (2) the study of sociocultural factors in undergraduate students' learning of mathematical proof. Her particular focus in these areas has been on children's functional thinking, characteristics of classroom practice that build students' algebraic thinking, and how undergraduate students internalize public discourse and symbolizations about proof and argumentation.

Dr. Blanton is currently co-editing a research volume that coordinates early algebra research across multiple perspectives, and she is PI of an NSF-funded project on mathematical proof. More information about her publications in research and practitioner journals and books can be found at www.theproofproject.org.

Gina M. Foletta

Gina M. Foletta is an Associate Professor in the Department of Mathematics and Computer Science at Northern Kentucky University where she teaches content courses for elementary, middle, and secondary pre-service teachers, and secondary mathematics methods courses, and graduate courses for in-service mathematics teachers. Her research interests are in technologies and their potential roles in learning mathematics; especially, geometry.

For the past five years, Dr. Foletta has contributed to the Computer Algebra Intensive (CAS)-Mathematics Project's technology-intensive secondary school curriculum materials as a senior author and mathematics consultant. She has co-authored book and journal articles in practice venues, including the *Mathematics Teacher*. She has published chapters in research reports and practice yearbooks. She has given numerous

workshops and presentations, including NCTM Research Presessions.

Electronic Communications Secretary Candidates

Robert M. Capraro

Robert M. Capraro is an Assistant Professor of Mathematics Education at Texas A&M University where he teaches advanced graduate research courses, mathematics education courses, and mathematics content courses for middle grades preservice teachers. His research interests include middle grades mathematics teaching and learning and unpacking teacher knowledge as it relates to student performance. He also has a passion for bringing more rigorous quantitative methods to mathematics education research.

Dr. Capraro is currently involved in an NSF-IERI funded project with Texas A&M University, the University of Delaware, and the American Association for the Advancement of Science. The project seeks to understand how to provide, on a large scale, the professional development and continuing support teachers need to improve student achievement in middle grades mathematics.

Dr. Capraro has published 11 articles in journals such as *JRME*, *Educational and Psychological Measurement*, and *Multiple Linear Regression Viewpoints*. Recently, Dr. Capraro was appointed associate editor for *American Educational Research Journal: Teaching Learning and Human Development*.

Karen F. Hollebrands

Karen F. Hollebrands is an Assistant Professor of Mathematics Education at North Carolina State University where she teaches undergraduate and graduate courses in mathematics education, which includes two courses on the use of technology in the teaching and learning of mathematics. Her research focuses on the ways in which technology mediates understandings students develop when they learn mathematics in technology-intensive environments and how

prospective teachers interpret students' mathematical thinking when technology is an integral component of the learning environment.

Dr. Hollebrands is currently the co- PI on the Recognizing Accelerated Mathematics Potential in Underrepresented People project, which is jointly funded by the GE Foundation and NSF. The goal of this five-year project is to increase the number of underrepresented students taking Algebra in eighth grade and Calculus in twelfth grade.

Dr. Hollebrands recently completed a term as co-Editor and then Editor of the Technology Tips column for the Mathematics Teacher. Her work has been published in (or is in press with) Journal of Mathematical Behavior, The International Journal for Computer Algebra Systems in Mathematics Education, Mathematics Teacher, Educational Technology Research and Development, among others.

Steering Committee Candidates

Janine Remillard

Janine Remillard is an Assistant Professor at the University of Pennsylvania. Her research interests include teachers' use of and learning from mathematics curriculum materials and issues surrounding mathematics teaching and learning in urban schools and communities. In 1999, she was awarded an NSF Early CAREER grant to support her project *Learning to Teach Mathematics in Urban Classrooms*. The project involved professional development and research on teacher and student learning in two urban elementary schools using a Standards-based curriculum.

Dr. Remillard is currently a co-P.I. of *MetroMath: The Center for Mathematics in America's Cities*, an NSF-funded Center for Learning and Teaching. A collaboration among Rutgers, CUNY, and UPenn, MetroMath seeks to improve mathematics teaching and learning in urban communities through fostering leadership and undertaking interdisciplinary research. The work of the center places primary emphasis on identifying,

studying, and enhancing the assets of urban communities as a means of improvement. She is also directing a pilot project funded by Penn's University Research Foundations that examines connections between parents' and children's numeracy practices in low-income urban community.

Dr. Remillard's work has been published in *Curriculum Inquiry*, *Elementary School Journal*, *Journal of Mathematics Teacher Education*, *Journal for Research in Mathematics Education*, and *Urban Review*.

Jon Star

Jon Star is an Assistant Professor in the College of Education at Michigan State University, with a joint appointment in the departments of Teacher Education and Counseling, Educational Psychology, and Special Education. In his research, Dr. Star is interested in the development of students' knowledge of mathematics, with particular emphasis on conditions which support the development of flexibility in the use of problem solving strategies. Dr. Star's current work addresses these themes within the context of middle and high school algebra classes.

Dr. Star was a high school mathematics teacher prior to entering graduate school. His current teaching responsibilities at Michigan State include secondary mathematics methods courses, masters courses for inservice mathematics teachers, and graduate courses in mathematics education. Dr. Star is an active member of AERA, PME-NA, and NCTM.

New Directory Coming Soon

A new SIG/RME Annual Membership Directory will be published in January 2005. To ensure that you will receive the directory, please check your contact information in the current directory. If you do not have your hard copy at hand, you can check the electronic directory on the SIG/RME website. The user ID is **math** and the password is **sigrme**.

If any changes need to be made to your contact information, please notify Rose Mary Zbiek by December 15, 2004. You may notify Rose by email at rmz101@psu.edu or by using the address correction form at the end of this newsletter.

NCTM Research Pre-Session Information

The NCTM Research Pre-Session will be held at the Hilton Anaheim Hotel in Anaheim, California April 4-6, 2005. The opening session speaker will be Rochelle Gutierrez. Her talk is titled *Organizing for Advancement: Can Teacher Communities Foster Equity?* The closing session speakers are Megan Loef Franke and Margaret Schwan Smith.

The final program for the NCTM Research Pre-session will be available in January 2005 through NCTM's website at <http://www.nctm.org/meetings/anaheim/research.htm>.

Pre-registration for the Research Pre-Session can be made electronically through NCTM's website (www.nctm.org/meetings/anaheim) beginning November 3, 2004 or by calling (888) 241-8406. On-site registration will also be available. The registration cost is \$70.00 for the entire pre-session, \$35.00 for the Monday opening session and Tuesday sessions only, and \$35.00 for student registration.

AERA Information

The Annual Meeting of AERA will be held in Montreal April 11-15, 2005. The SIG/RME invited speaker is Courtney Cazden. Her talk is titled *The Significance Across the Curriculum of Discourse Research in Mathematics Classrooms*.

In addition to the invited speaker session, the SIG/RME 2005 program will consist of 6 symposia sessions, 4 paper sessions, 5 roundtable sessions each with 5 paper discussions, and our annual Business Meeting. The new AERA electronic process is not complete, so the specific program is not yet available for dissemination. This information will be posted on the SIG/RME website (<http://www.sigrme.org/>) as soon as it is available, which should be before December.

Pre-registration for the Annual Meeting will be made available electronically through AERA's website (<http://www.aera.net/>) or through U.S. mail with the forms provided in an upcoming issue of *Educational Researcher*. On-site registration will also be available.

Graduate Students to Meet at the NCTM Research Pre-Session

At the 2004 Annual Meeting in Pennsylvania, the SIG/RME Board together with the NCTM Research Committee sponsored a graduate student session held on Tuesday afternoon. Many attended and the consensus was that the session was useful to graduate students. In response to the demand, a graduate student session has been scheduled for the 2005 Annual Meeting in Anaheim on Tuesday afternoon. Faculty representatives from the SIG/RME Board and the NCTM Research Committee will attend the meeting and act as mentors and supporters of the discussions. At the 2004 meeting, several other faculty attended the session, and their presence was well received by the students. We encourage interested faculty to attend the 2005 session!

Call for Senior Scholar Award Nominations

In the business meeting at AERA 2004, SIG/RME approved the creation of a senior scholar award, to be given biannually. The guidelines for this award have been posted on the SIG/RME website.

The Special Interest Group for Research in Mathematics Education (SIG/RME) of AERA invites nominations for the first issue of the Senior Scholar Award, to be presented at AERA 2006. 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 exemplar in regard to the following two basic criteria.

The nominee has

- designed and carried out programmatic research that have contributed to the theoretical development of the field as well as having been grounded empirically;
- 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 documents.

1. A letter of nomination co-signed by at least two mathematics education researchers who are members of SIG/RME. The letter should make a case for how the nominee's work exemplifies the two basic criteria by citing publications and giving examples. It can also explain how the additional qualities of his or her work strengthen the nomination.
2. A dossier containing an up to date CV for the nominee and the documentation and publications supporting the nomination letter. Testimonies from mentees or scholars from other fields can be included in the dossier.

The nomination packet should be sent to

Patricio Herbst
University of Michigan
1302C School of Education Building
610 East University Avenue
Ann Arbor, MI 48109-1259

All nomination packets must be received by **January 2, 2005**.

An awards committee composed of the senior co-chair, two retired scholars in mathematics education, and two active members of SIG/RME will decide on the award. The awardee will be expected to deliver the SIG/RME invited address at AERA 2006.

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

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 Cengiz Alacaci at alacaci@fiu.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 Andrew Izsák in 2004 (see Winter 2004 Newsletter).

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, and recognition at the annual NCTM Research Presession.

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 earlier than 5 years prior to the nomination deadline (e.g., no

earlier than September 1999 for this year's nominations).

Nominations should include (and are restricted to) **2 copies** of 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.

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). (Self nominations will be accepted.)

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 Steering Committee members and the Electronic Communications Secretary of the SIG/RME Executive Board. The decisions of that committee will be final. Please send nomination materials **by January 16, 2005** to

Eric Knuth
University of Wisconsin – Madison
Teacher Education Building
225 N. Mills Street
Madison, WI 53706

Membership Dues & Contact Information

A few years ago, a change occurred in our membership policy as dictated by AERA. You now renew your SIG/RME membership when you renew your AERA membership. (Download the form at <http://www.aera.net/member/SIGrenewalform.rtf>.) This way, all funds are processed by AERA, and your membership dates are always the same. Therefore, membership expiration dates no longer appear on the mailing labels of SIG/RME publications.

If you wish to be only a member of SIG/RME and not AERA, download the membership form from the SIG/RME web site, and send it to Rose Mary Zbiek with your dues. If you are currently a member of SIG/RME but not AERA and are unsure of your membership expiration date, please contact Rose Mary Zbiek.

It is important to note that slots on the AERA Annual Meeting program are allocated to our SIG based on the number of people who are members of both SIG/RME and AERA. Therefore, we strongly encourage you to be a member of both organizations.

If your mailing address or other contact information is incorrect, please use the form at the end of this newsletter to send corrections to Rose Mary Zbiek.

**SIG/RME OFFICER ELECTION
BALLOT**

Note: You may vote by using this ballot or vote electronically by going to the SIG/RME website (www.sigrme.org).

Vote for one person for each office.

Co-Chair

_____ Mike Shaughnessy

_____ Margaret Schwan Smith

Recording Secretary

_____ Maria Blanton

_____ Gina M. Foletta

Electronic Communications Secretary

_____ Robert M. Capraro

_____ Karen F. Hollebrands

Steering Committee

_____ Janine Remillard

_____ Jon Star

Return your ballot by

January 1, 2005

to

Patricio Herbst
University of Michigan
1302C School of Education Building
610 East University Avenue
Ann Arbor, MI 48109-1259

Address Correction Requested!

If your newsletter did not reach you at the correct address, please e-mail Rose Mary Zbiek (rmz101@psu.edu) with updated information, or mail the form below to her. If any of your contact information has changed since the last SIG/RME directory (e-mail address, phone number, etc.), please provide corrected information.

Please update my information!	
Name _____	
Institution _____	
Mailing Address _____	

Phone Number _____	Fax Number _____
e-mail Address _____	<u>AERA</u> Member Number _____
<p>All SIG/RME members will receive the newsletter electronically. The Annual Membership Directory will be available electronically. <i>Please check the line only if you prefer to receive a paper copy of one or both documents.</i></p> <p><input type="checkbox"/> Please mail me a hard copy of the newsletter. <input type="checkbox"/> Please mail me a hard copy of the directory.</p> <p>(This information will assist us with keeping our membership records accurate and up-to-date with AERA.)</p>	
<p>Rose Mary Zbiek The Pennsylvania State University 272 Chambers Building University Park, PA 16802 rmz101@psu.edu</p>	

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Allendale, MI 49401-9403