

The *Journal of Mathematics Education at Teachers College* is a publication of the  
Program in Mathematics and Education at Teachers College  
Columbia University in the City of New York.

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Dr. Stuart Weinberg was the Mathematics Department Chairman at Stuyvesant High School before joining the Teachers College faculty as Director of Student Teaching for the Program in Mathematics. Dr. Weinberg has applied his extensive classroom experience to the development of methods of assessing teachers' classroom performance utilizing belief systems and attitudes.

**Aims and Scope**

The *JMETC* is a re-creation of an earlier publication by the Teachers College Columbia University Program in Mathematics. As a peer-reviewed, semi-annual journal, it is intended to provide dissemination opportunities for writers of practice-based or research contributions to the general field of mathematics education. Each issue of the *JMETC* will focus upon an educational theme. The themes planned for the 2012 Fall-Winter and 2013 Spring-Summer issues are *Equity* and *Leadership*, respectively.

*JMETC* readers are educators from pre-K-12 through college and university levels, and from many different disciplines and job positions—teachers, principals, superintendents, professors of education, and other leaders in education. Articles to appear in the *JMETC* include research reports, commentaries on practice, historical analyses, and responses to issues and recommendations of professional interest.

**Manuscript Submission**

*JMETC* seeks conversational manuscripts (2,500-3,500 words in length) that are insightful and helpful to mathematics educators. Articles should contain fresh information, possibly research-based, that gives practical guidance readers can use to improve practice. Examples from classroom experience are encouraged. Articles must not have been accepted for publication elsewhere. To keep the submission and review process as efficient as possible, all manuscripts may be submitted electronically at [www.tc.edu/jmetc](http://www.tc.edu/jmetc).

**Abstract and keywords.** All manuscripts must include an abstract with keywords. Abstracts describing the essence of the manuscript should not exceed 150 words. Authors should select keywords from the menu on the manuscript submission system so that readers can search for the article after it is published. All inquiries and materials should be submitted to Ms. Krystle Hecker at P.O. Box 210, Teachers College Columbia University, 525 W. 120<sup>th</sup> St., New York, NY 10027 or at [JMETS@tc.columbia.edu](mailto:JMETS@tc.columbia.edu).

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## *Journal of Mathematics Education at Teachers College*

### **Call for Papers**

The “theme” of the fall issue of the *Journal of Mathematics Education at Teachers College* will be *Equity*. This “call for papers” is an invitation to mathematics education professionals, especially Teachers College students, alumni and friends, to submit articles of approximately 2500-3500 words describing research, experiments, projects, innovations, or practices related to equity in mathematics education. Articles should be submitted to Ms. Krystle Hecker at [JMETC@tc.columbia.edu](mailto:JMETC@tc.columbia.edu) by September 1, 2012. The fall issue’s guest editor, Mr. Nathan N. Alexander, will send contributed articles to editorial panels for “blind review.” Reviews will be completed by October 1, 2012, and final manuscripts of selected papers are to be submitted by October 15, 2012. Publication is expected by November 15, 2012.

### **Call for Volunteers**

This *Call for Volunteers* is an invitation to mathematics educators with experience in reading/writing professional papers to join the editorial/review panels for the fall 2012 and subsequent issues of *JMETC*. Reviewers are expected to complete assigned reviews no later than 3 weeks from receipt of the manuscripts in order to expedite the publication process. Reviewers are responsible for editorial suggestions, fact and citations review, and identification of similar works that may be helpful to contributors whose submissions seem appropriate for publication. Neither authors’ nor reviewers’ names and affiliations will be shared; however, editors’/reviewers’ comments may be sent to contributors of manuscripts to guide further submissions without identifying the editor/reviewer.

If you wish to be considered for review assignments, please request a *Reviewer Information Form*. Return the completed form to Ms. Krystle Hecker at [hecker@tc.edu](mailto:hecker@tc.edu) or Teachers College Columbia University, 525 W 120th St., Box 210, New York, NY 10027.

### **Looking Ahead**

Anticipated themes for future issues are:

Fall 2012	Equity
Spring 2013	Leadership
Fall 2013	Modeling
Spring 2014	Teaching Aids

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To obtain additional copies of *JMETC*, please visit the *Journal’s* website [www.tc.edu/jmetc](http://www.tc.edu/jmetc). The cost per copy delivered nationally by first class mail is \$5.00. Payment should be sent by check to *JMETC*, Teachers College Columbia University, 525 W 120th St., Box 210, New York, NY 10027.

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# Journal of Mathematics Education at Teachers College

Spring – Summer 2012

A CENTURY OF LEADERSHIP IN  
MATHEMATICS AND ITS TEACHING

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in the City of New York

# TABLE OF CONTENTS

## Preface

- v      **Assessment, Evaluation, and Testing: Measurement at Various Levels**  
*Heather Gould*

## Articles

- 6      **Assessment for the Common Core Mathematics Standards**  
*Hung-Hsi Wu, University of California at Berkeley*
- 19     **A Population of Assessment Tasks**  
*Phil Daro, University of California at Berkeley*  
*Hugh Burkhardt, Shell Centre, University of Nottingham*  
*University of California at Berkeley*
- 26     **Assessing Students' Mathematical Proficiencies on the Common Core**  
*Henry S. Kepner and DeAnn Huinker, University of Wisconsin – Milwaukee*
- 33     **Assessment in a Common Core Era: Revolutionary or Evolutionary?**  
*Allen M. Dimacali, College Board*
- 40     **Assessment in Finnish Schools**  
*Lasse Savola, Finnish Institute of Technology*
- 45     **The Russian Uniform State Examination in Mathematics: The Latest Version**  
*Albina Marushina, Teachers College Columbia University*

## Assessment Notes from the Field

- 50     **Will the CCSSM Have Staying Power?**  
*Matthew R. Larson, Lincoln Public Schools, Lincoln, NE*
- 53     **Using Item Analysis Data as a Tool to Inform Instruction in the Mathematics Classroom: A Model of Data-Driven Instruction**  
*William Farber, Mercy College*
- 61     **Assessment of Mathematical Modeling**  
*Ronny Kwan Eu Leong, Universiti Malaya, Kuala Lumpur, Malaysia*
- 66     **The Mathematics Portfolio: An Alternative Tool to Evaluate Students' Progress**  
*Marla A. Sole, Eugene Lang College of the New School for Liberal Arts*

## **TABLE OF CONTENTS, continued**

### **Other**

**71 ABOUT THE AUTHORS**

**74 *Acknowledgement of Reviewers***

## ABOUT THE AUTHORS



**Hung-Hsi Wu** is Emeritus Professor of Mathematics at the University of California. He is a differential geometer by profession, but has devoted his full attention to school mathematics education since around 1998. He worked with the California State Board of Education until 2005 and, since 2000, has been engaged in the professional development of mathematics teachers. He is completing a series of textbooks for K–12 teachers, the first of which appeared in 2011 and addresses elementary teachers, *Understanding Numbers in Elementary School Mathematics*. At present, Dr. Wu is serving on the Technical Working Group of PARCC.



**Phil Daro** was chair of the writing group that designed the *Common Core State Standards for Mathematics*. His experience includes service as consultant and instructional designer at all levels from the classroom to state school systems. He has served as a director of Balanced Assessment for the Mathematics Curriculum, California and American Mathematics Projects, New Standards Project in both Mathematics and ELA, and the current Mathematics Assessment Project. He has served on national boards and committees including NAEP Validity Committee; College Board Mathematics Framework Committee; ACHIEVE Technical (Assessment) Advisory Group, Mathematics Work Group; Mathematical Sciences Education Board of the National Research Council; and many others. He is Vice-Chair of ISDDE.



**Hugh Burkhardt** served as the Director of the Shell Centre for Mathematical Education in the United Kingdom. He has directed a wide range of assessment-related projects in both the US and the UK – often working with test providers to improve the validity of their examinations. At present, he is a director of MARS, the Mathematics Assessment Resource Service, which brings together the products and expertise to help education systems link high-stakes assessment with curriculum and professional development. Dr. Burkhardt was the founding Chair of ISDDE, the International Society for Design and Development in Education.



**Hank Kepner** has influenced mathematics education in classrooms and school districts nationally. Currently he works with the Milwaukee Public Schools and other districts on implementing Common Core. Dr. Kepner is a Professor of Mathematics Education and Mathematical Sciences at the University of Wisconsin – Milwaukee. He taught middle and high school mathematics for 12 years in Milwaukee and Iowa City. His research interests in mathematics education focus on having students make sense of mathematics. Dr. Kepner served as President of the National Council of Teachers of Mathematics; the Association of Mathematics Teacher Educators; the National Council of Supervisors of Mathematics; and the Wisconsin Mathematics Council.

## ABOUT THE AUTHORS

**DeAnn Huinker** is a Professor of Mathematics Education at the University of Wisconsin – Milwaukee. She directs the Center for Mathematics and Science Education Research and teaches graduate and undergraduate courses in mathematics education. Her research examines the development of mathematical knowledge for teaching, teacher leadership for mathematics, and students' development of number and operation sense. Her work focuses on effective mathematics instruction in urban districts. Dr. Huinker served as the Principal Investigator of the Milwaukee Mathematics Partnership, a comprehensive National Science Foundation, Mathematics and Science Partnership project.



**Allen Dimacali** is the Associate Director of Mathematics Curriculum and Standards at The College Board where his work focuses on the *Common Core State Standards* in mathematics. A National Board Certified teacher, he taught middle school and high school mathematics in Southern California and New York City for over ten years, followed by work in educational publishing. Allen holds a BA in Mathematics and an MA in Educational Leadership. He is a doctoral candidate in mathematics education at Teachers College Columbia University. His interests include mathematics curriculum development, technology in the classroom, pedagogical preparation of high school teachers, and mathematics education policy and reform.



**Lasse Savola** studied mathematics in his native Finland and at Rice University (BA, 1997) and mathematics education at Teachers College Columbia University (MS, 2000; PhD, 2008). He is an Associate Professor of Mathematics at the Fashion Institute of Technology—SUNY in New York City, where he teaches Geometry and the Art of Design as well as Statistics. He is interested in patterns of all kinds. Dr. Savola's analyses of teaching practice and teacher education in Finland have appeared in Finnish, English, and other European languages.



**Albina Marushina** is a PhD candidate in Mathematics Education at Teachers College Columbia University. She graduated from the Mathematical-Mechanical Department of St. Petersburg University in Russia. She taught at various educational institutions in St. Petersburg including the Mozhaisky Academy and the city's secondary schools. Albina has conducted and written about mathematics circles for schoolchildren. Her scholarly interests focus on the effective teaching of mathematics through problem solving. Albina's publications include both research papers and a manual for teaching probability.





## ABOUT THE AUTHORS



**Matthew Larson** is the supervisor of mathematics for Lincoln Public Schools in Lincoln, Nebraska. Dr. Larson has held leadership positions in the National Council of Teachers of Mathematics, for which he is a member of the governing board. His publications include several series of influential textbooks for elementary and middle schools. He has served as a visiting Associate Professor of Mathematics at Teachers College.



**William Farber** received his BS in Mathematics from Manhattan College, MA, EdM, and EdD in Mathematics Education from Teachers College. He is an Associate Professor of Mathematics at Mercy College in New York and the author of many grant proposals involving innovative PD programs in mathematics education. Dr. Farber serves as Director of the *Graduate Level Clinically Rich Teacher Preparation Pilot Program*, which establishes ongoing partnership with participating high-needs schools and the Yonkers School District. His professional experience includes service as a K–12 Mathematics Specialist for the NYCDOE’s Department of Mathematics and Director of the Dr. Charlotte K. Frank Center for Mathematics Education at the City College of New York.



**Kwan Eu (Ronny) Leong** received the PhD in Mathematics Education from Teachers College in 2012. He will return to his position as a lecturer at the Faculty of Education, Universiti Malaya in Kuala Lumpur. His research interests include secondary mathematics education, mathematics teacher education, problem solving, algebraic reasoning, and mathematical modeling.



**Marla A. Sole** is an Assistant Professor of Mathematics at Eugene Lang College of the New School for Liberal Arts. She received her doctorate in Mathematics Education from New York University. Her research interests include persistence, gender diversity, and using real-world data to teach about inequity. She has written statistics modules as part of a NSF grant, and currently is a co-author of a manuscript that examines factors that aide or impede the progress of women who have the aptitude, opportunity, and desire to study advanced mathematics. This work explores why women’s career trajectories might be different from men’s.