



## Saturday, November 12

**8:00 Continental Breakfast** Cloister Club

**8:30-8:45 Welcome and Announcements** Max Palevsky Cinema

**8:45-10:30** Third Plenary Session Max Palevsky Cinema  
***Design and Implementation Perspectives on K-12 Mathematics Curriculum***

Introductions: [Ira J. Papick](#), University of Missouri, Columbia, MO

Speakers: [Lee Peng Yee](#), National Institute of Education, Singapore  
[JeongSuk Pang](#), Korea National University of Education,  
Cheongwon-Gun, Chungbuk, Korea

Q/A Moderator: [Charlotte K. Frank](#), The McGraw-Hill Companies, New York, NY

**10:30-11:00 Break**  
*(Refreshments available in the Cloister Club of Ida Noyes Hall.)*

**11:00-12:45** Fourth Plenary Session Max Palevsky Cinema  
***Design and Implementation Perspectives on K-12 Mathematics Curriculum***

Introductions: [Barbara Reys](#), University of Missouri, Columbia, MO

Speakers: [Li Jun](#), East China Normal University, Shanghai, China  
[Ryosuke Nagaoka](#), The University of the Air, Tokyo, Japan

Q/A Moderator: [Christian Hirsch](#), Western Michigan University, Kalamazoo, MI

**12:45-1:45 Lunch (provided)** Cloister Club

**1:45-3:15 Country Concurrent Discussion Groups I**  
(In each of the eight discussion groups, the U.S. speaker presents a 20-25 minute summary of his work and perhaps other research emphasizing what the speaker sees as the major differences (or "interestingly different" aspects) between the U.S. and the indicated country. One of the two plenary speakers from that country gives a reply of perhaps 10 minutes. Then the moderator leads a discussion among all participants.)

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**China:** West Lounge

Speaker: [Jinfa Cai](#), University of Delaware, Newark, DE  
Moderator: [Susan Goldin-Meadow](#), University of Chicago

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**Japan:** Library

Speaker: [Tad Watanabe](#), Pennsylvania State University,  
University Park, PA  
Moderator: [Don Small](#), U.S. Military Academy, West Point, NY

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**Korea:** East Lounge  
Speakers: [Susan Beal](#), St. Xavier College, Chicago, IL  
[Janice Grow-Maienza](#), Truman State University, Kirksville, MO  
Moderator: [Denisse R. Thompson](#), University of South Florida, Tampa, FL

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**Singapore:** Max Palevsky Cinema  
Speaker: [Alan Ginsburg](#), U.S. Department of Education, Washington, D.C.  
Moderator: [Francis \(Skip\) Fennell](#), McDaniel College, Westminster, MD

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3:15-3:45 Break  
*(Refreshments available in the Cloister Club of Ida Noyes Hall.)*

**3:45 - 5:15 Country Concurrent Discussion Groups II**

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**China:** West Lounge  
Speaker: [Yeping Li](#), University of New Hampshire, Durham, NH  
Moderator: [Susan K. Eddins](#), Illinois Mathematics and Science Academy,  
Aurora, IL

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**Japan:** Library  
Speaker: [Blake E. Peterson](#), Brigham Young University, Provo, UT  
Moderator: [Cos Fi](#), University of North Carolina-Greensboro,  
Greensboro, NC

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**Korea:** East Lounge  
Speaker: [Insook Chung](#), St. Mary's College, Notre Dame, IN  
Moderator: [Sandra Wilcox](#), Michigan State University, East Lansing, MI

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**Singapore:** Max Palevsky Cinema  
Speaker: [Richard Bisk](#), Worcester State College, Worcester, MA  
Moderator: [Mary Ann Huntley](#), University of Delaware, Newark, DE

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**5:15 - 5:30 Closing remarks** Max Palevsky Cinema

## Sunday, November 13

8:00 Continental Breakfast Cloister Club

8:30-8:45 Welcome and Announcements Max Palevsky Cinema

8:45-10:15 First panel Max Palevsky Cinema  
***What is the status of calculator and computer technology in the K-12 curriculum and what are the prospects for the future?***

Moderator: [Pendred Noyce](#), Noyce Foundation, Weston, MA

Panelists: [Li Jun](#), East China Normal University, Shanghai, China  
[Ryosuke Nagaoka](#), The University of the Air, Tokyo, Japan  
[Hee-Chan Lew](#), Korea National University of Education, Chungbuk, Korea  
[Lee Peng Yee](#), National Institute of Education, Singapore  
[M. Kathleen Heid](#), The Pennsylvania State University, University Park, PA  
[Kathryn Chval](#), University of Missouri, Columbia, MO

10:15-10:30 Break  
*(Refreshments available in the Cloister Club of Ida Noyes Hall.)*

10:30-12:00 Second Panel Max Palevsky Cinema  
***What is the role of testing on the curriculum and how is that changing, if at all?***

Moderator: [Carol E. Malloy](#), University of North Carolina, Chapel Hill, NC

Panelists: [Sun Xiaotian](#), Central University for Nationalities, Beijing, China  
[Shigeo Yoshikawa](#), Department of Educational Curriculum, Ministry of Education, Tokyo, Japan  
[JeongSuk Pang](#), Korea National University of Education, Cheongwon-Gun, Chungbuk, Korea  
[Soh Cheow Kian](#), Curriculum Planning and Development Division, Ministry of Education, Singapore  
[William H. Schmidt](#), Michigan State University, East Lansing, MI  
[Jeremy Kilpatrick](#), University of Georgia, Athens, GA  
[Chris Cox](#), Kalamazoo Public Schools, Kalamazoo, MI

12:00-12:15 Brief Closing Session

## Biographies of Presenters

**Susan Beal** retired from the Department of Mathematics, Saint Xavier University in Chicago and has joined the Institute for Mathematics and Science Education at the University of Illinois at Chicago. She earned a Ph.D. from the University of Chicago. She served on the boards of the American Mathematics Teacher Educators, National Council of Supervisors of Mathematics, and Illinois Mathematics Teacher Educators, and on the ISBE Task Force on the Mathematics Preparation of Teachers. She is a former editor of the *Illinois Council of Teachers of Mathematics Journal*. She has served as a professional developer for the Chicago Teachers Academy, the Teaching Academy for Mathematics and Science and as a mathematics consultant for many schools in the United States and Ecuador. She has published for the Ideal School Supply Company, Middle School Mathematics Project, Greenwood Publishing Group, *Texas Council of Mathematics Journal* and *Iowa Council of Teachers of Mathematics Journal*.

**Richard Bisk** is Chair and Professor of Mathematics at Worcester State College (Worcester, MA), where his teaching includes courses in Mathematical Modeling, Linear Algebra, Number Theory and Mathematics for Elementary Teachers. His Ph.D. in mathematics is from Clark University. He has worked with K-12 teachers and students for the past 15 years and has taught numerous professional development courses that focus on improving teacher understanding of mathematics. Since 2000, he has regularly received grants and contracts to develop and teach programs based upon mathematics textbooks from Singapore. He maintains a Web site for this work at [www.fac.worcester.edu/smip](http://www.fac.worcester.edu/smip). He is a member of the Massachusetts Department of Education Math/Science Partnership Steering Committee, where he is working on a project to develop a comprehensive statewide professional development program to engage elementary and middle school teachers in a rigorous study of mathematical content.

**Jinfa Cai** is a Professor and Director of Secondary Mathematics Education at the University of Delaware. He is interested in how students learn mathematics and solve problems, and how teachers can provide and create learning environments so that students can make sense of mathematics. He has explored these questions in various educational contexts, within and across nations. He is the Principal Investigator for the 4.5-year NSF-funded Longitudinal Investigation of the Effect of Curricula in Algebra Learning (LieCal) with John Moyer. He has received honors including an International Research Award and a Teaching Excellence Award from the University of Delaware. He has served on the editorial boards of the *Journal for Research in Mathematics Education*, *Mathematics Education Research Journal*, and *Zentralblatt fuer Didaktik der Mathematik*. He is on the Board of the University of Delaware's University Council on Teacher Education and has been president of the College of Arts and Sciences Faculty Senate.

**Insook Chung** is an Assistant Professor in the Department of Education at Saint Mary's College (Notre Dame, IN), where she teaches early childhood education and mathematics education classes. She is interested in constructivism in education; developing early number concepts and skills using concrete and real life objects; performance-based assessment using learning activities and games; and comparative studies in mathematics education between Korea and the US. She holds an M. Ed. from the University of Missouri-St. Louis in Early Childhood Education (1993) and an Ed. D. from the University of Missouri-St. Louis in Teaching and Learning (2000).

**Kathryn Chval** is an Assistant Professor and Co-Director of the Missouri Center for Mathematics and Science Teacher Education at the University of Missouri-Columbia. Her research interests include effective methods of teaching mathematics, including teaching English Language Learners, and of preparing teachers. Prior to joining the University of Missouri, she was the Acting Section Head for the Teacher Professional Continuum Program at the National Science Foundation. She also spent 14 years at the University of Illinois at Chicago (UIC) directing NSF-funded projects including the Maneuvers with Mathematics Curriculum Development Project, the All Learn Mathematics Project, the America Counts Project and the America Counts Research Study. In addition, she has conducted research and developed models focusing on: preparing teachers of mathematics; effective uses of calculators; enhancing support structures for retaining undergraduates; reforming university remedial mathematics courses; and creating an alternative certification program for middle-school mathematics teachers.

**Jere Confrey** is a Professor of Mathematics Education at Washington University in St. Louis where she has served as Director of the Center for Inquiry in Science Teaching and Learning (CISTL). From 1998-2004, she was Vice-Chairman of the Mathematics Sciences Education Board, National Academy of Sciences. She

chaired the NRC Committee which produced *On Evaluating Curricular Effectiveness*, and was a coauthor of NRC's *Scientific Research in Education*. Her research has focused on student learning of functions, ratio and proportion, trigonometry, constructivist theory, equity, technology, and recently on urban school reform and systemic change models. She was a co-founder of the UTEACH program at the University of Texas in Austin, and was the founder of the SummerMath program for young women at Mount Holyoke College and co-founder of SummerMath for Teachers. She has taught school at the elementary, secondary and postsecondary levels. She received a Ph.D. in mathematics education from Cornell University. (She was to have moderated the second plenary session, but could not due to illness.)

**Chris Cox** is the K-12 Mathematics Coordinator for Kalamazoo Public Schools in Kalamazoo, Michigan. The public school setting has provided him with 15 years of studying how students and teachers realize the teaching and learning of mathematics. Most recently, he has developed a cadre of nearly 50 district teacher leaders within KPS that continue to advance the district's curriculum, instruction and assessment related to mathematics. The ongoing documentation of their work can be found at [KPSmath.com](http://KPSmath.com). He is active within local, state and national mathematics teacher organizations. During the last two years he has been a public school district representative for the NSF funded Center for the Study of Mathematics Curriculum.

**Susan K. Eddins** retired last June from the Illinois Mathematics and Science Academy where she had taught since the school's inception in 1986. Over a 34-year teaching career, she taught students in kindergarten through college and was the recipient of the Presidential Award for Excellence in Mathematics Teaching (IL, '89) and has National Board Certification in Adolescent and Young Adult Mathematics. Currently she is doing part-time consulting with Achieve, Inc., out of Washington, D.C. Ms. Eddins has a B.A. and M.A. in mathematics with additional graduate work in mathematics and gifted education. She has served in state and national leadership positions. She was a member of the 9-12 writing group for NCTM's *Principles and Standards for School Mathematics*, a past panel member and editor of NCTM's *Student Math Notes*, a co-author of *UCSMP Algebra*, and has had several articles appear in refereed journals.

**Francis (Skip) Fennell** is Professor of Education at McDaniel College (formerly named Western Maryland College). He has been a classroom teacher, principal, supervisor of instruction, and a program officer at the National Science Foundation. He has been a member of the Mathematical Sciences Education Board, the NCTM Board of Directors, the president of the Research Council for Diagnostic/Prescriptive Mathematics, and is Immediate Past-President of the Association of Mathematics Teacher Educators. He is one of the writers of the *Principles and Standards for School Mathematics* (NCTM, 2000). He has written over 40 books and 50 articles for publication. He is currently involved in three Mathematics Science Partnerships in Maryland. He received the CASE Professor of the Year Award in Maryland and the Glenn Gilbert Award for Leadership from the National Council of Supervisors of Mathematics. He currently serves on the United States National Commission for Mathematics Instruction, and is the President-Elect of NCTM.

**Cos Fi** is an Assistant Professor of Mathematics Education in the School of Education at the University of North Carolina at Greensboro. He received his Ph.D. from the University of Iowa in 2003. His research interests include mathematics curriculum and pedagogy; teacher knowledge; teacher development; and learning and achievement. He teaches both pre-service and in-service teachers. He also provides professional development focused on re-developing teachers' school mathematics knowledge, skills, and disposition.

**Charlotte K. Frank** is Senior Vice President of Research and Development for McGraw-Hill Education of The McGraw-Hill Companies. One of her responsibilities is to research and develop educational activities with the two other segments of the corporation: the Financial Services Sector, including Standard and Poor's, and the Information Services Group. She represents McGraw-Hill at the National Business Roundtable's Education Taskforce Initiative and coordinates the Harold W. McGraw Jr. Awards in education. She is also co-chair of Don't Laugh At Me: Operation Respect (DLAM:OR). She joined The McGraw-Hill Companies in 1988 from a nine-year role as Executive Director of the Division of Curriculum and Instruction for the New York City Board of Education, where she was also a teacher and supervisor. She has received more than 60 awards for her achievements in education. She received her Ph.D. from New York University and is a N.Y.S. Regent Emerita.

**Alan Ginsburg** is Director of Policy and Program Studies within the Office of Planning, Evaluation, and Policy Development at the U.S. Department of Education. His office is responsible for independently evaluating the program outcomes and quality of the over \$50 billion that the U.S. federal government annually spends on education. His office is also coordinating a new effort to identify promising practices to achieve the goals of No Child Left Behind. His international work includes chairing the 20-nation Education Forum within the organization for Asia-Pacific Economic Cooperation. He received his Ph.D. in economics

from the University of Michigan. He has received the federal government's Distinguished Presidential Rank Service Award and the American Evaluation Association's Gunnar Myrdal award. He recently completed a study comparing Singapore and U.S. mathematics systems and a study of what we can learn from the TIMSS and PISA results about international mathematics performance.

**Susan Goldin-Meadow** is the Irving B. Harris Professor at the University of Chicago. She received her bachelor's degree from Smith College after spending a year abroad studying psychology at the Piagetian Institute in Geneva. She received her Ph.D. in developmental psychology from the University of Pennsylvania and is currently a member of the Departments of Psychology and Comparative Human Development at the University of Chicago. She is currently president of the Cognitive Development Society and the editor of the new journal *Language Learning and Development* sponsored by the Society of Language Development, and was recently elected to the American Academy of Arts and Sciences. With support from a Guggenheim Fellowship and a James McKeen Cattell Fellowship, she wrote two books and edited a third, all published in 2003 – *Hearing Gesture, The Resilience of Language, Language in Mind* (co-edited with Dedre Gentner).

**Douglas A. Grouws** is Professor of Mathematics Education and William T. Kemper Fellow at the University of Missouri. He has a long history of research and scholarship in the mathematics education field. He is a member of the NRC committee that produced the recent report, *On Evaluating Curricular Effectiveness: Judging the Quality of K-12 Mathematics Evaluations* (NRC, 2004). He is author or co-author of three books including the editorship of the *Handbook for Research in Mathematics Education*. A lifetime member of the National Council of Teacher's of Mathematics, he currently serves on NCTM's task force on the interpretation of the results of the NAEP assessments in mathematics. He is the evaluator for the CSMC and he currently directs two NSF-funded projects: Mathematics Through Technology (MTT) and Comparing Options in Secondary Mathematics: Investigating Curriculum (COSMIC).

**Janice Grow-Maienza** has been Professor of Education at Truman State University since 1988. She received a Ph.D. from the University of Chicago in 1982. She has taught and consulted for the Indonesian Department of Education and Cultures, for Sinte Gleska College on the Rosebud (Lakota) Reservation, and at Pusan National University in Korea. Her work includes an analysis of the translations of the 6th national curriculum of Korea, a classroom observation study in Pusan, Korea, and a chapter on the structure and philosophy of teacher education in *The Teacher Educator's Handbook*.

**John Mark Hansen** is the Charles L. Hutchinson Distinguished Service Professor in Political Science and Dean of the Social Sciences Division at The University of Chicago. He has been on the University faculty since 1986 except for a year on the faculty of Harvard University. In 2002, he returned to Chicago. He is the author of *Gaining Access: Congress and the Farm Lobby, 1919-1981* (1991), and *Mobilization, Participation and Democracy in America* (1993, with Steven Rosenstone), the latter the recipient of the Outstanding Book Award from the National Conference of Black Political Scientists. He chairs the American National Election Studies Board of Overseers. He served as coordinator for the Task Force on the Federal Election System for the National Commission on Federal Election Reform, a private bipartisan commission co-chaired by Presidents Gerald R. Ford and Jimmy Carter following the 2000 election. He is a member of the American Academy of Arts and Sciences.

**M. Kathleen Heid** is a Distinguished Professor of Education at The Pennsylvania State University. She has a B.A. (The Catholic University of America), an M.A. and a Ph.D. (University of Maryland). An experienced high school mathematics teacher, she has authored curriculum materials and research studies on technology-intensive school mathematics. She served on the writing teams for MAA's *Call for Change in the Mathematical Education of Teachers* and for NCTM's *Principles and Standards for School Mathematics*. She served on the MAA Board of Governors and currently serves on the NCTM Board of Directors. For the past fifteen years, Ms. Heid has continuously directed or co-directed major projects funded by the National Science Foundation, focused on technology-intensive curricula and secondary teachers' mathematical knowledge. Currently she is co-editing *Research on Technology and the Teaching and Learning of Mathematics: Syntheses and Perspectives* that includes chapters from 44 authors in 30 institutions and 7 countries.

**Christian Hirsch** is James H. Powell Professor of Mathematics at Western Michigan University, where he teaches courses in mathematics for teachers and in mathematics education. He received a B.A. in mathematics from the University of Iowa, an M.S. in mathematics from the University of Illinois, and a Ph.D. in mathematics (with specialization in mathematics education) from the University of Iowa. He was a member of NCTM's first Commission on Standards for School Mathematics and chaired the Grades 9-12 Working Group for the *Curriculum and Evaluation Standards for School Mathematics*. He has served on the

Board of Directors of the National Council of Teachers of Mathematics and of the School Science and Mathematics Association. Since 1992, he has been co-director of the NSF-funded Core-Plus Mathematics Project, a high school mathematics curriculum research and development project. He is currently also co-director of the Center for the Study of Mathematics Curriculum.

**Mary Ann Huntley** is an Assistant Professor in the Department of Mathematical Sciences at the University of Delaware, with a joint appointment in the School of Education. She is a Research Associate with CSMC. She has received numerous awards for her scholarly work, including a National Academy of Education/Spencer Postdoctoral Fellowship (2003) and the AACTE Outstanding Dissertation Award (1997). Her primary research interest involves investigating relationships between mathematics curricula, teaching, and students' learning, especially at the middle- and high-school levels. Prior to her position at the University of Delaware she spent one year as a rotator at the NSF and four years conducting research, evaluation, and curriculum analysis on a variety of projects ranging in size and scope, from small local projects to others, with international collaborators, that have implications for national policy. Before her work in mathematics education she spent five years working as an applied mathematician.

**Jeremy Kilpatrick** is Regents Professor of Mathematics Education at the University of Georgia. He holds A.B. and M.A. degrees from the University of California, Berkeley, and M.S. and Ph.D. degrees from Stanford University. Before coming to Georgia in 1975, he taught at Teachers College, Columbia University. He chaired the National Research Council Committee that produced the 2001 report *Adding It Up*, and served on the RAND Mathematics Study Panel, which produced *Mathematical Proficiency for All Students*. He is a principal investigator in the NSF-funded Center for Proficiency in Teaching Mathematics and a member of the Mathematical Sciences Education Board. A life member of the Mathematical Association of America, he served on the Board of Governors from 1985 to 1987 and was recently elected Governor-at-Large representing teacher education. In 2003, he received a Lifetime Achievement Award for Distinguished Service to Mathematics Education from the National Council of Teachers of Mathematics.

**Glenda Lappan** is University Distinguished Professor in the Department of Mathematics and Division of Science and Mathematics Education, Michigan State University. She received her doctorate in Mathematics and Education from the University of Georgia in 1965. From 1989–91, she served as a Program Director at the National Science Foundation. From 1997–2001 she was President of the National Council of Teachers of Mathematics. She was appointed by the Secretary of Education to the National Education Research Policy and Priorities Board in 1996, and served until 2003. Her research and development interests are in the connected areas of students' learning of mathematics and mathematics teacher professional growth. She is currently the Director of the Connected Mathematics Project 2, funded by the National Science Foundation. In 2004, she was awarded the National Council of Teachers of Mathematics Lifetime Achievement Medal. She is a Co-Principal Investigator of the CSMC. (She was to have moderated the first plenary session, but could not due to laryngitis.)

**Lee Peng Yee** is an Associate Professorial Fellow at the National Institute of Education (NIE), Nanyang Technological University, Singapore. He joined NIE in 1994 and served as head of the NIE Department of Mathematics from 1996 - 2000, and as vice president of the International Commission on Mathematical Instruction (ICMI) for two terms (1987-1990 and 1991-1994).

**Hee-chan Lew** has been a Professor of Mathematics Education at Korea National University of Education since 1991. He holds a B.Sc. (Mathematics) and a M.Ed. (Mathematics Education) from Seoul National University, and an Ed.D. (Mathematics Education) from Temple University. He has been a researcher and researcher fellow with the Korea Educational Development Institute, the Executive Secretary for the Korea Society of Educational Studies in Mathematics, a member of the International Group for the Psychology of Mathematics Education's International Committee, and the Chair of the Local Organizing Committee of the 10th Asian Technology Conference in Mathematics. He has directed projects in mathematics education on computer technology, teaching methods, evaluation, and textbook development, funded by Korea Research Foundation and Ministry and Education. He is the author or co-author of Korean elementary and high school mathematics textbooks, 20 research reports, and more than 80 articles.

**Li Jun** received her B.Sc. from the East China Normal University (ECNU) in 1985. She taught in the mathematics department for over 10 years, until receiving a scholarship from Singapore Nanyang Technological University to study for a Ph.D. in mathematics education. After three years, she finished her doctoral research on Chinese students' understanding of probability. In 2000, she returned to China, and is now an associate professor in the math department of the ECNU. She is a member of the Writing Group of the national senior high school mathematics Standards (Grades 10-12). She is also the main writer of a set of school mathematics textbooks for junior high school students (Grades 7-9). Her main research interest is

exploring how to improve student learning of mathematics, especially the learning of statistics and probability. She is also interested in teaching strategies and culture's influence on mathematics education.

**Yeping Li** is currently a faculty member in the Department of Mathematics and Statistics at the University of New Hampshire. He received a Ph.D. from the Cognitive Studies in Education Program at the University of Pittsburgh. Prior to coming to the United States, he completed a master's degree in mathematics education, was a high school mathematics teacher for four years and held a junior faculty position in mathematics education at Beijing Normal University in China. He is interested in examining issues related to mathematics curriculum and teacher education both within and across educational systems. He employs cross-national studies to understand cross-national differences and similarities in teacher education and curriculum materials and how they may impact students' learning of mathematics. His goal is to bring these areas of inquiry together to obtain a better understanding of how students' learning of mathematics can be improved through changes in curriculum and teacher education.

**Carol E. Malloy** is Associate Professor in Mathematics Education in the School of Education at the University of North Carolina at Chapel Hill. She teaches secondary mathematics methods courses within the Master of Arts in Teaching Program, teaches mathematics courses for middle and elementary preservice students, and teaches Ph.D. courses in curriculum and foundations. Her major research interests are mathematics learning, the influence of culture on the cognitive development of African American students as it relates to mathematics learning, and teacher/student interactions that lead to achievement and understanding in mathematics. She and two other colleagues have just completed data collection for a major three-year study, funded by the National Science Foundation, investigating students' development as mathematical learners in reform oriented classrooms. She was a member of the National Council of Teachers of Mathematics Board of Directors (1998-2002) and was a member of the NCTM *Principles and Standards* 2000 writing team.

**Ryosuke Nagaoka** is a Professor of Mathematics and Informatics at the University of the Air, the open and distance learning university in Japan. After studying numerical analysis of partial differential equations at the University of Tokyo, he returned to his interest in the philosophy and history of mathematics at the Graduate School of the University of Tokyo, where he submitted his paper on the historical development and philosophical meaning of Georg Cantor's set theory. Since then, he has become increasingly interested in mathematical education, chiefly in the upper secondary and tertiary levels. He has been a writer for a series of mathematical textbooks for high school students for 20 years, and now is chief of the editorial board for a series.

**Pendred Noyce** is a founding trustee of the Robert Noyce Foundation, which supports improvement in American K-12 public education, with a focus on literacy, mathematics, and science. She has a degree in biochemistry from Harvard University and a medical degree from Stanford University. For the past 15 years, she has worked to improve science and mathematics education in Massachusetts, serving for eight years as co-Principal Investigator of the Massachusetts State Systemic Initiative, PALMS. She has written on the use of formative assessment in mathematics education and the impact of standards-based mathematics curriculum on student achievement in mathematics. She serves on the boards of a number of educational non-profits, including TERC, COMAP, the Boston Plan for Excellence, The Center for the Study of Mathematics Curriculum, the Massachusetts Business Alliance for Education, the Radcliffe Institute, and the Rennie Center for Education Policy and Research.

**JeongSuk Pang** is an Assistant Professor of Mathematics Education at the Korea National University of Education. She has directed eight grants in mathematics education, including a study on changing the culture of mathematics classrooms, funded by the Korea Research Foundation (Early Career Award), and a development of mathematics lesson plans using ICT, funded by the Korea Education and Research Information Service. She is the author or coauthor of over three books, 10 research reports, and 50 research articles. She has been an instructor at Seoul National University of Education, Hanyang University and SungKyunKwan University, as well as a senior researcher for the Korea Education and Research Information Service, and a post-doctoral researcher at the University of Pennsylvania. She holds a B.A. in Elementary Education from Seoul National University of Education, a M.Ed. in Mathematics Education from Korea National University of Education, and a Ph.D. in Mathematics Education from Louisiana State University.

**Ira J. Papick** is Professor of Mathematics at the University of Missouri-Columbia and Curators' Teaching Professor. He has Bachelors and Masters degrees in Mathematics Education and a Ph.D. in Mathematics from Rutgers University. He has published numerous research papers and co-authored the research level book, *Prufer Domains*, Marcel Dekker Pure and Applied Mathematics Series, 1996, and authored the

undergraduate textbook for middle grade mathematics teachers, *Algebra Connections*, Prentice Hall, 2005. Professor Papick has extensive involvement in K-12 mathematics reform with particular emphasis on teacher preparation, and he is currently the PI or co-PI on three National Science Foundation grants focusing on K-12 mathematics curricular materials. Professor Papick is the recipient of five University of Missouri teaching awards (Purple Chalk Award, Amoco Award, Mystical 7 Award, Kemper Award, President's Award), the most prominent of which is the Intercampus Presidential Award for Outstanding Teaching, 2001.

**Blake E. Peterson** is an Associate Professor of Mathematics Education at Brigham Young University (BYU). He attended Utah State University from 1980 to 1986. From 1981 to 1983, he learned to speak Japanese by living in Japan as a missionary for The Church of Jesus Christ of Latter-day Saints. He taught high school mathematics for two years and later received a Ph.D. from Washington State University (1993). He arrived at BYU in 1996. While at BYU, he has studied the mathematical dialogue that occurs between mathematics student teachers and cooperating teachers. He has also investigated the dialogue that takes place among preservice teachers participating in lesson study. In 2003, he was able to put his Japanese to use by spending two months in Japan studying the dialogue that occurs between Japanese mathematics student teachers and their cooperating teachers.

**Barbara Reys** is Distinguished Professor of Mathematics Education at the University of Missouri. She co-directs the Center for the Study of Mathematics Curriculum, an NSF-sponsored Center for Learning and Teaching. Ms. Reys served on the Board of Directors of the National Council of Teachers of Mathematics (NCTM) and as a writing group leader for the NCTM's *Principles and Standards for School Mathematics*, published in 2000. She has taught elementary, middle and senior high students and currently works to prepare future middle school mathematics teachers. Her current research focuses on the role and influence of official curriculum documents, including state-level curriculum frameworks and district-adopted mathematics textbooks.

**Robert Reys** is Curators' Professor of Mathematics Education at the University of Missouri. He has done research in estimation, mental computation and number sense. He has authored/co-authored over 180 articles in professional journals and 30 books. Currently he is one of the investigators in the Center for the Study of Mathematics Curriculum.

**William H. Schmidt** received his undergraduate degree in mathematics from Concordia College (IL) and his Ph.D. from the University of Chicago in psychometrics and applied statistics. He is currently a University Distinguished Professor at Michigan State University, co-director of the Education Policy Center, and co-director of the U.S.-China Center for Research. Previously he was national research coordinator and executive director of the U.S. National Center for the Third International Mathematics and Science Study (TIMSS). He headed the NSF Office of Policy Studies and Program Assessment from 1986-1988. He has co-authored seven books, including *Why Schools Matter*. His current concerns regard issues of academic content in K-12 schooling, assessment theory and the effects of curriculum on academic achievement and educational policy related to mathematics, science and testing in general. He received an honorary Doctorate from Concordia University in 1997, and the 1998 Willard Jacobson Lectureship from The New York Academy of Sciences.

**Don Small** is Professor of Mathematics at the U.S. Military Academy (West Point, NY). Before coming to the Academy in 1991, he taught at Colby College (Maine) for 23 years. He earned his M.A. (mathematics) from the University of Kansas and his Ph.D. (mathematics) from the University of Connecticut. He has been active in the reform of undergraduate mathematics. He helped initiate the Calculus Reform movement and is presently a leader in the College Algebra Reform. He has organized or conducted over 130 workshops and has written books on calculus, computer algebra systems, and college algebra. His work focuses on developing faculty and curriculum to meet present and future needs of students with respect to the academy, work place, and society. He has worked with historically black colleges and universities, tribal colleges, as well as with majority colleges (both two- and four-year).

**Soh Cheow Kian** is currently the Assistant Director of Sciences in the Curriculum Planning and Development Division of the Ministry of Education (Singapore), overseeing mathematics curriculum in grades 1-12. Mr. Soh taught grades 11 and 12 at Raffles Junior College from 1992-98, and was Vice Principal of Fuchun Secondary School (grades 7-10) from 2001-02. He graduated from the National University of Singapore (NUS) in 1990 with Honors in Mathematics. He received a Postgraduate Diploma in Education from the National Institute of Education in 1992, and a Master in Statistics from NUS in 2003.

**Sun Xiaotian** is Professor of Mathematics and Mathematics Education and Dean of Educational

Administration at the Central University for Nationalities in Beijing, China. He is also a censor on the Textbook Examination and Approval Committee for the State Ministry of Education, and the project leader for the Mathematics Curriculum Standards for Full-time Obligatory Education. He is the author of *Understanding the Standards* (2003), *An International View of Mathematics Education* (2004), and *Approaching the Secondary Mathematics Classroom* (2004).

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