

## MEET THE AUTHORS

**Jeff Babb** is Chair of the Department of Mathematics & Statistics at the University of Winnipeg, Winnipeg, Canada. Earlier, he was a consulting statistician with the University of Manitoba and the Canadian Grain Commission. He has collaborated with researchers and practitioners in many fields and has publications in several journals across a variety of disciplines. Jeff has taught the *History of Calculus* course at the University of Winnipeg numerous times. His research interests include history of mathematics, statistical climatology and applications of statistics to agriculture, anthropology, biology chemistry, and childcare.



**Giorgio T. Bagni** is Research Fellow at Department of Mathematics and Computer Science, University of Udine (Italy). He was teaching Professor in the Universities of Bologna, Querétaro (Mexico), Rome “La Sapienza” and in the Alta Scuola Pedagogica, Locarno (Switzerland). He has given invited lectures of History, Epistemology and Didactics of Mathematics in several international study conferences. He has written more than 20 books and 200 papers and was a member of the Editorial Board of CERME-5 (5th Congress of the European Society for Research in Mathematics Education, Cyprus 2007).

**James Currie** is Professor of Mathematics at the University of Winnipeg, Winnipeg, Canada. He introduced the *History of Calculus* course (in 2000) and a companion course, *Mathematics Prior to 1640* (in 2007) at the University of Winnipeg. His major research interest is in combinatorics on words, and his work has appeared in many journals, including *American Mathematical Monthly*, *Discrete Mathematics*, *Combinatorica*, *European Journal of Combinatorics*, *Order* and others.



**Friðrik Diego** is an Assistant Professor at Iceland University of Education in Reykjavik. Publications in Icelandic include articles (and lectures) on associativity in sets with few elements (some in collaboration with Kristín Halla Jónsdóttir), several texts and lecture notes (Algebra, Number Theory, Number Systems, Geometry, Calculus) for pre-service students, a study of the mathematical competence of first year students at the Iceland University of Education and lectures on the mathematical preparation of primary school teachers. He has been a member of the Organizing Committee for Mathematical Competitions (since 1997), preparation, problem composition and problem selection for national and international competitions, such as the Baltic Way and the International Mathematical Olympiad (IMO), as well as the Leader or Deputy

Leader of the Icelandic team at the IMO a few times and a representative for Iceland at ICMI (*The International Commission on Mathematical Instruction*).

## Meet the Authors



**Dores Ferreira** is a primary teacher with a Master's in teaching and learning mathematics. She is also an instructor in continuing training in mathematics for primary teachers at the Institute of Child Studies of the University of Minho, Portugal.

**Michael N. Fried** is a lecturer in the Program for Science and Technology Education at Ben Gurion University of the Negev. His undergraduate degree in the liberal arts is from St. John's College in Annapolis MD (the "great books" school). He received his M.Sc. in applied mathematics from SUNY at Stony Brook and his Ph.D. in the history of mathematics from the Cohn Institute of History and Philosophy of Science at Tel Aviv University. His research interests are eclectic and include mathematics teacher education, sociocultural issues, semiotics, history of mathematics, and history and philosophy of education. He is author with Sabetai Unguru of *Apollonius of Perga's Conica: Text, Context, Subtext*.



**Steve Humble** (aka DR Maths) works for The National Centre for Excellence in the Teaching of Mathematics in the North East of England (<http://www.ncetm.org.uk>). With more than twenty years teaching experience he has worked in a wide and varied range of educational establishments. He believes that the fundamentals of mathematics are not about difficult formulae, but about logical ways of looking at and thinking about things. One of the challenges for maths teachers is to show children that this is true. He is the author of the book *The Experimenter's A to Z of Mathematics*, which develops an experimenter's investigative approach to mathematical

ideas, with mathematical stories. As Dr Maths he organised "Maths on the Quayside". 2600 school children took part in this maths trail around Newcastle and Gateshead Quayside in June 2007. He is the Chair of the IMAs Schools committee and on the LMS schools committee. For more information on DRMaths go to <http://www.ima.org.uk/Education/DrMaths/DrMaths.htm>



**Kristín Halla Jónsdóttir** is an Associate Professor at Iceland University of Education. She completed her PhD in Mathematics at the University of Houston (1975) and her dissertation was on Holoidal Compactifications of Uniquely Divisible Semigroups. She has served in various Selection Committees, and Curriculum Guidelines in Mathematics Committees in the Iceland Ministry of Education. She recently translated Simon Singh's *Fermat's Last Theorem*, into Icelandic *Hið íslenska bókmenntafélag*.

**Arnaud Mayrargue** graduated in Physics and Chemistry at the Ecole Normale Supérieure de Cachan. He is a researcher in history of physics, and teaches, history of science, chemistry and physics, in an Institute for training teachers at the University of Paris, Board member of the Société Française d'Histoire des Sciences et des Techniques (SFHST). His research in the history of science are focused on wave theory of light (19<sup>th</sup> century); achromatic lens; astronomy (18<sup>th</sup> century); optics ether; energy; relation between mathematics and physics.



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**Amy Minto** received both a Bachelor of Arts (1996) and Masters of Business Administration (1998) from The University of Montana. After working a decade in small business management and the insurance and risk management field, Amy will be returning to academia in Fall, 2008 as a Ph.D. student at University of Oregon's Charles H. Lundquist School of Business - Graduate School of Management.



**Mike O'Lear** is an Adjunct Instructor in the department of Mathematical Sciences, The University of Montana. He is interested in issues related to mathematical learning, assessment and policy making.

**Pedro Palhares**, PhD in Child Studies – Elementary Mathematics is an Assistant professor in the area of elementary mathematics at the Institute of Child Studies of the University of Minho, Portugal.



**Barbara Garii** teaches in the School of Education at SUNY-Oswego. Her research explores how mathematical funds of knowledge and community ethnomathematical practices are integrated and contextualized into school and classroom mathematics.



**Spyros Glenis** is a teacher of secondary mathematics in Greece. He holds a masters of Education in mathematics as well as a Masters of Statistics from the Dept. of Mathematics at the University of Athens. He is interested in mathematics educational research, Euclidean geometry and Calculus.

**Woong Lim** is a doctoral student in the Department of Curriculum and Instruction at University of Houston. He has taught various high school mathematics courses and is currently teaching mathematics at Lee College, Baytown, Texas. He studied applied mathematics at Northwestern University and earned a masters in mathematics from University of Houston. If he is not teaching, he is probably fencing epee, reading or writing.



## Meet the Authors



**Linda Martin** is currently the chair of the Mathematics Department at Central New Mexico Community college where she has been developing and teaching undergraduate mathematics courses for 11 years.

**Bettina Dahl Soendergaard** is currently an Assistant Professor of mathematics and higher education at the University of Aarhus, Faculty of Science in Denmark. Prior to returning to her native country, she worked in as an Assistant Professor in Mathematics Education at Virginia Tech, USA. Here she came from a job as an Adviser (senior admin position + academic work) at the Norwegian Centre for Mathematics Education at the Norwegian University of Science and Technology. Before that she was a Research Officer in EU education policy at the University of Oxford, UK. She holds a Ph.D. in mathematics education (Roskilde, DK), a M.Sc. in Educational Research Methodology (Oxon, UK), and a combined M.Sc. and B.Sc. in mathematics and social science (Aalborg, DK).



**Anna Sfard** is based at the University of Haifa, Israel, and the Institute of Education, University of London, UK, and also affiliated to Michigan State University. With a formal background in mathematics and physics, and with a life-long interest in history, philosophy and language, she focuses her research on issues of mathematical learning and creative thinking. Her research is guided by what she calls "commognitive" approach to cognition, according to which thinking can be regarded as a form of communication (the term *commognition* is a combination of *cognition* and *communication*, meant to remind that thinking and communicating are two manifestations of the same human activity). Currently, she is engaged, together with her students, in research projects in which commognitive framework is applied to the study of development of mathematical discourses and of cultural embeddedness of learning skills, with a special emphasis on the roots of learning difficulties in mathematics. She is the recipient of the 2007 Hans Freudenthal Medal given by the International Commission of Mathematics Instruction. The text featured in this issue of the journal is the introduction to her book *Thinking as Communicating: Human development, the growth of discourses, and mathematizing*, published by Cambridge University Press in 2008.



**Kristin Umland** is in the Mathematics and Statistics Department at the University of New Mexico where she has been teaching for 11 years. She has worked almost exclusively with pre- and in-service teachers for the past six years.

**Rafael Villarreal-Calderon** is currently a sophomore at the University of Montana, Missoula. He is majoring in physics and pre-medical sciences and enjoys studying the sciences as they apply to everyday life. He hopes to study medicine in the future.



**Antti Viholainen** is a Researcher at the Department of Mathematics and Statistics University of Jyväskylä, Finland, nearing the completion of his PhD in mathematics education. He is interested in research on student's understanding of Calculus concepts.

**Jon Warwick** completed his first degree in Mathematics and Computing at South Bank Polytechnic in 1979 and was awarded a PhD in Operational Research in 1984. He has many years of experience in teaching mathematics, mathematical modelling, and operational research in the higher education sector and his research interests include systems theory and mathematics learning and teaching. He is currently Professor of Educational Development in the Mathematical Sciences at London South Bank University.



## AUTHORS OF CRITICAL NOTICE



**Brian Greer** came to mathematics education with a background in mathematics and psychology, leading to an interest in the relationship between cognitive psychology and mathematics education. After some 30 years in the School of Psychology in Belfast, Ireland, he took a position in mathematics education at San Diego State University, which he left in 2003 to work as an independent scholar in Portland, Oregon. Topics that he has focused on include multiplicative structures, probabilistic thinking, and word problems. More recently, particularly under the influence of Swapna Mukhopadhyay, with whom he collaborates intensively, he characterizes mathematics and mathematics

education as human activities that are historically, culturally, socially, and politically situated.

**Eric (Rico) Gutstein** is Professor of Curriculum and Instruction at University of Illinois-Chicago. His interests include teaching mathematics for social justice, Freirean approaches to teaching and learning, and urban education. He has taught middle and high school mathematics. Rico is a founding member of Teachers for Social Justice (Chicago) and is active in social movements. He is the author of *Reading and Writing the World with Mathematics: Toward a Pedagogy for Social Justice* (Routledge, 2006) and an editor of *Rethinking Mathematics: Teaching Social Justice by the Numbers* (Rethinking Schools, 2005).



**Danny Martin** is Associate professor at the University of Illinois at Chicago, where he holds a joint appointment in the College of Education and the Department of Mathematics, Statistics, and Computer Science. His primary research interest is equity issues in mathematics education, with a focus on mathematics socialization and the construction of mathematics identities among African American adults and adolescents. He is author of the book, *Mathematics Success and Failure Among African Youth*. His recent articles include “Mathematics Learning and Participation as Racialized

Forms of Experience: African American Parents Speak on the Struggle for Mathematics Literacy and Mathematics Learning,” “Participation in the African American Context: The Co-Construction of Identity in Two Intersecting Realms of Experience,” and “Beyond Missionaries or Cannibals: Who Should Teach Mathematics to African American Children?”



**Wolff-Michael Roth** is Lansdowne Professor of Applied Cognitive Science at the University of Victoria, British Columbia. One of his many research interests constitutes mathematical knowing and learning from early grades to professional practice of academics (e.g., scientists) and non-academics (e.g., electricians, fish culturists, environmentalists). He integrates ideas and practice of embodiment across a variety of intensively pursued activities, including academic research, gardening, gourmet cooking, building and renovating, and cycling. His most recent publications include *Doing Teacher Research: A Handbook for Perplexed Practitioners* (Sense, 2007) and *Toward an Anthropology of Graphing* (Springer, 2003)



**Tom O'Brien** is author, consultant, researcher and professor emeritus in mathematics education, Southern Illinois University at Edwardsville. His work in education is three-fold: teacher education, curriculum development, and research on children's thinking. As a researcher, he has studied the growth of mathematical ideas in subjects from preschool to medical school and law school. As a teacher, he has worked with pupils from preschool through graduate school and for more than twenty years he was the director of the Teachers' Center Project, a project widely regarded as the foremost approach to in-service teacher education in the country. As a curriculum developer, he has authored more than fifty books for children, in addition to having written and edited some eighty papers on children's thinking and education published through the Teachers' Center Project. In addition, he has published and delivered some 450 papers on children's thinking, mathematics education, intellectual development and educational change. His presentations and seminars have taken place in the USA, Canada, Brazil, UK, Italy, France, Holland, Switzerland, Hungary, and the Republic of South Africa. He was named a North Atlantic Treaty Organization (NATO) Senior Research Fellow in Science in 1978. O'Brien received his bachelor's degree from Iona College, his master's degree from Teachers College/Columbia University and his Ph.D. from New York University.

## *Meet the Authors*

**Marianne Smith** is an Oakland, CA-based writer, editor and communications professional. Her work includes analysis of education policy dynamics, as in the influence of the media, the blogosphere and policymakers on K-12 mathematics education: assessment, curricula and instruction issues.

