

Day 1: Sunday June 16

9:00 am – 12:00 pm: Pre-conference workshops

12:00 pm – 1:00 pm: Lunch and Welcome

1:00 - 2:05 Symposia session 1

S1	HomeNumeracy158.1	<p>Home numeracy activities and mathematical achievement</p> <p>1: Venera Gashaj, University Pompeu Fabra, Barcelona 2: Sum Kwing Cheung, The Education University of Hong Kong 3: David Munez, National Institute of Education, Singapore 4: Kerry Lee, The Education University of Hong Kong</p>
S2	EarlyMathSkills162.4	<p>Numerical skills and cognition in kindergarten: Predictors of individual differences in math ability and growth in math skills in early elementary school.</p> <p>1: Nathan Lau, Western University, Canada 2: Andrew Ribner, University of Pittsburgh, USA 3: Rebecca Bull, Macquarie University, Australia 4: Daniel Ansari, Western University, Canada</p>
S3	MathLearning63.2	<p>Understanding Mathematical Notations and Representations</p> <p>1: Dirk Schlimm, McGill 2: Ulises Xolocotzin Eligio, Cinvestav 3: Juan Pablo Mejía Ramos, Rutgers University, USA 4: David Landy, Indiana University</p>

2:25 - 3:30 Symposia session 2

S4	EarlyMathSkills142.3	<p>A tricky mathematical problem: Developing rigorous and valid measurements of the preschool home numeracy environment</p> <p>1: Victoria Simms, Ulster University, UK 2: Camilla Gilmore, Loughborough University, UK 3: David Purpura, Purdue University, USA 4: Sanne Rathé, KU Leuven, Belgium</p>
S5	NumericalCognition157.1	<p>Numerical Cognition: Domain-General and Domain-Specific Processes</p> <p>1: Elien Bellon, KU Leuven 2: Ian Lyons, Georgetown University 3: Jamie Campbell, University of Saskatchewan 4: Angélique Roquet, Aix-Marseille Université</p>
S6	NumberLine26.1	<p>Number line estimation: Understanding strategy use, digit placement, and gamification for typical and atypical number lines.</p> <p>1: Korbinian Moeller, Leibniz-Institut für Wissensmedien, Tuebingen, Germany 2: Hilary Barth, Wesleyan University, CT, USA 3: Koen Luwel, KU Leuven, Belgium 4: Sabrina Di Lonardo, Carleton University</p>

4:00 pm-6:00pm: Poster Session (P1) and Lightning Talks (L1)

4:00pm Lightning Talks Session 1

<p>4:00 pm Collaboration Pitches</p>	<p>C1. Opportunities to Learn via Big Data in a Numeracy Intelligent Tutor - Rene Grimes, University of Texas, Austin</p> <p>C2. Mathemarmite: a video game to train children count - Pedro Cardoso-Leite, University of Luxembourg</p> <p>C3. Study of the causal role of the intraparietal sulcus in tasks that involve complex processing of magnitudes: space, number and time - Sara Garcia Sanz, Universidad de la Sabana, Colombia</p>
<p>4:30pm Data Blitzes</p>	<p>L1. Math and the brain: Lessons from functional neuroimaging - Marie Arsalidou, National Research University, Moscow</p> <p>L2. Pupillometric Indices of Arithmetic Approximation in College-Aged Adults - Amanda L. McGowan, Michigan State University</p> <p>L3. Effects of different transcranial electrical stimulation protocols on arithmetic learning - Jochen Mosbacher, University of Graz</p> <p>L4. Development of a Negative Priming effect in a non-symbolic numerical comparison task - Arnaud Viarouge, University Paris Descartes</p> <p>L5. Investigating the modality specific cognitive abilities predictive of arithmetic ability - Rosemary Penford, University of Cambridge</p> <p>L6. Rules of Order: Evidence for a fundamental bias when processing the ordinality of numbers - Selvia Gattas, Georgetown University</p>
<p>5:15pm Data Blitzes</p>	<p>L7. Spontaneous Gestures When Explaining Fraction Comparison Problems - Michelle Hurst, University of Chicago</p> <p>L8. Predictors of Fraction Word Problem Solving - Haobai Zhang, University of Delaware</p> <p>L9. Spatial Representations of Symbolic Fractions and Non-Symbolic Ratios: SNARC Effects and Number Line Estimation - Rui Meng, University of Wisconsin</p> <p>L10. Changes in Students' Fraction Arithmetic Errors from Fourth through Sixth Grades in Response to Classroom Fraction Instruction - Kelly-Ann Gesuelli, University of Delaware</p> <p>L11. Specific early numeracy skills mediate the relation between executive function skills and mathematical skills - Jenny Yun-Chen Chan, University of Minnesota</p> <p>L12. Giving students control: Improving the math outcomes of at-risk elementary students - Macey Cartwright, University of Cincinnati</p>

Day 2: Monday June 17

9:00 - 10:05 Symposia session 3

S7	CognitiveTraining58.1	<p>Improving mathematics using cognitive training: From basic mechanisms to translation</p> <p>1: Korbinian Moeller, University of Tübingen, Germany 2: Roi Cohen Kadosh, University of Oxford, England 3: Geetha B. Ramani, University of Maryland, College Park, USA 4: Torkel Klingberg, Karolinska Institutet, Sweden</p>
S8	MathAndCulture217.1	<p>Language, culture, and numerical thinking in non-industrialized cultures</p> <p>1: Isabelle Boni, UC Berkeley 2: Rose M. Schneider, UC San Diego 3: Benjamin Pitt, UC Berkeley 4: Tania Cruz, UC Berkeley</p>
S9	MathCognition68.1	<p>Whole Number Bias: Developmental, Contextual, Linguistic and Neural Perspectives</p> <p>1: David W. Braithwaite, Florida State University 2: Jake McMullen, University of Turku, Finland 3: Kexin Ren, Temple University, USA) 4: Miriam Rosenberg-Lee, Rutgers University, USA</p>

10:25 - 11:30 Symposia session 4

S10	InhibitorySkills92.1	<p>Are inhibitory skills important for mathematical performance?</p> <p>1: Caron Clark, University of Nebraska 2: Kerry Lee, The Education University of Hong Kong 3: Sum Kwing Cheung, The Education University of Hong Kong 4: Bert de Smedt, University of Leuven, Belgium</p>
S11	SymbolicProcessing126.1	<p>Current Directions in Symbolic Number Processing</p> <p>1: Hans-Christoph Nuerk, University of Tübingen, Germany 2: Erin Maloney, University of Ottawa 3: Krzysztof Cipora University of Tübingen, Tübingen 4: Tom Faulkenberry, Tarleton State University, Texas</p>
S12	MathAndLanguage54.1	<p>Language: A tool for learning arithmetic</p> <p>1: David J. Purpura, Purdue University 2: Kiran Vanbinst, University of Leuven 3: Chang Xu, Carleton University 4: Jason C. Chow, Virginia Commonwealth University,</p>

11:50 am - 1:30 pm: Lunch + Poster session (P2)

1:40 - 2:45 Symposia session 5

S13	SpontaneousFocusing103.1	Expanding examinations of spontaneous mathematical focusing tendencies 1: Michele Mazzocco, University of Minnesota 2: Alex Silver, University of Pittsburgh 3: Richard Prather, University of Maryland 4: Jake McMullen, University of Turku, Finland
S14	EarlyMathSkills35.1	Home numeracy and early math skills in Latin America: Findings from Chile, México, and Uruguay 1: María Inés Susperreguy, Pontificia Universidad Católica de Chile. 2: Diana Leyva, Davidson College 3: Dinorah de León, Universidad de la República, Uruguay 4: Carolina Jiménez Lira, Universidad Autónoma de Chihuahua
S15	Dyscalculia55.1	Neuroscience of Dyscalculia 1: Bert De Smedt, University of Leuven, Leuven, Belgium 2: Karin Kucian, University Children's Hospital, Zurich 3: Teresa Iuculano, Centre National de la Recherche Scientifique & Université de Paris, La Sorbonne 4: Mojtaba Soltanlou, Department of Psychology, University of Tuebingen, Tuebingen, Germany

3:10 – 4:15 Symposia session 6

S16	Fractions84.1	Individual Differences in Fractions Knowledge 1: Priya B. Kalra, University of Wisconsin-Madison 2: David W. Braithwaite, Florida State University 3: Jake McMullen, University of Turku Discussant: Martha W. Alibali, University of Wisconsin-Madison
S17	CognitiveProcesses138.1	Beyond number sense: Exploring the contribution of domain-general cognitive processes to the development of mathematical thinking Discussant: Rebecca Merkley, Carleton University 1. Ilse Coolen, Université Paris Descartes 2: Eric Wilkey, University of Western Ontario 3: Kelly Mix, University of Maryland 4: Gavin Price, Vanderbilt University
S18	MathLearning114.4	Leveraging gesture to enrich math learning for diverse learners 1: Ruth B. Church, Northeastern Illinois University 2: Elizabeth M. Wakefield, Loyola University, Chicago 3: Susan W. Cook, University of Iowa 4: Shereen O. Beilstein, University of Illinois Urbana-Champaign

4:30 pm - 6:15 pm: Poster Session (P3) and Lightning talks (L2)

4:30 pm Lightning Talks Session 2

<p>4:30 pm Collaboration Pitches</p>	<p>C4. Effects of attitudes, mindset, and anxiety on children’s maths performance - Dawn Short, Abertay University</p> <p>C5. Home Numeracy Experiences In Many Countries - Jo-Anne LeFevre, Carleton University</p> <p>C6. Working memory and math performance: the influences of SES and parenting practices - Kerry Lee, The Education University of Hong Kong</p>
<p>5:00 pm Data Blitzes</p>	<p>L13. Move over worksheets: Parents want preschool to be math fun and engaging - Michele Stites, University of Maryland Baltimore County</p> <p>L14. Preschool Children’s Changes over Time in Affective Attitudes towards Mathematics: A Latent Transition Analysis - Xiao Zhang, University of Hong Kong</p> <p>L15. Partial Number Word Knowledge on the Give-N Task - Connor O’Rear, University of Notre Dame</p> <p>L16. Number gesture, finger gnosis and manual dexterity : Which contribution to verbal number knowledge development? - Laurence Rousselle, University of Liege</p> <p>L17. Which is more, 123 or 321?: A study on preschool children’s understanding of place value - Pierina Cheung, National Institute of Education, Singapore</p> <p>L18. Finger games to improve basic numerical skills in preschool children as a precursor of arithmetic learning later - Line Vossius, Research Unit ‘Enfances’, Liege, Belgium</p>
<p>5:45 pm Data Blitzes</p>	<p>L19. Conceptions of math and art are linked to avoidance of the domains - Rachel Jansen, University of California Berkeley</p> <p>L20. Measuring mathematical ability during the transition to college - Dominic Kelly, University of Michigan</p> <p>L21. Birth of the First Mathematical Concepts. (Mathematics About 2 Million Years Ago) - Said Boutiche, Université de Boumerdes</p> <p>L22. What Explains the Covariance Between Arithmetic and Reading? A Multivariate Model – Vivian Singer, Universida Alberto Hurtado</p> <p>L23. Collecting Surveys and Consent Forms from Parents for Basic Cognitive Research; What Worked, What Didn’t Work, and a Few Surprises... - Sheri-Lynn Skwarchuk</p> <p>L24. What are we missing in math assessments? Validating an IRT based math assessment in kindergarteners. - Alexa Ellis, University of Michigan</p>

Day 3: Tuesday June 18

8:00 am – 9:00 am: MCLS Business Meeting [everyone welcome to attend]

9:00 - 10:05 Symposia session 7

S19	EarlyMathSkills174.5	<p>Early numerical and non-numerical abilities and their relation with mathematical education</p> <p>1: Wei Wei, Zhejiang University, China 2: Sara Caviola, University of Leeds 3: Tali Leibovich-Raveh, University of Haifa 4: Krzysztof Cipora, University of Tuebingen, Tuebingen,</p>
S20	MathematicalDiscourse29.1	<p>Mathematical discourse - The symbols we use to communicate mathematical ideas</p> <p>1: Sarah Powell, University of Texas 2: Heather Douglas, Carleton University 3: Erica Zippert, Vanderbilt University 4: Discussant: M. Gail Headley, University of Delaware</p>
S21	MathLearning53.1	<p>From the math lab to the math class: can we improve math learning by targeting specific cognitive mechanisms?</p> <p>1: Flávia H. Santos, University College Dublin 2: Ipek Saralar, University of Nottingham 3: Ann Dowker, Oxford University, England 4: Dror Dotan, Tel Aviv University, Israel</p>

10:25 - 11:30 Symposia session 8

S22	EarlyMathSkills193.6	<p>Early Mathematical Screening Tools: Bridging the Research-Practice Gap</p> <p>1: Marcie Penner, King's University College at Western University 2: Brianna Devlin, University of Delaware 3: Stephanie Bugden, University of Pennsylvania 4: Rebecca Merkley, Carleton University</p>
S23	MathLearning156.6	<p>Unpacking Manipulatives: Recommendations for the Mathematics Classroom</p> <p>Chair: Helena Osana, Concordia University 1: Anne Lafay, Concordia University 2: Andrea M. Donovan, University of Wisconsin—Madison 3: Emmanuelle Adrien, Concordia University Discussant: Martha W. Alibali, University of Wisconsin—Madison</p>
S24	MathAndLanguage164.3	<p>Cognitive Underpinnings of Mathematics versus Reading Skills: Similarities and Differences</p> <p>1: Tuire Koponen, University of Jyväskylä, Finland 2: Xiujie Yang, Chinese University of Hong Kong 3: Xiao Zhang, The University of Hong Kong Discussants: Kiran Vanbinst & Lien Peters</p>

11:50 - 1:30 pm: Lunch + Poster session (P4)

1:40 - 2:45 Symposia session 9

S25	MathLearning154.5	<p>What I Can Bring to my Math Classroom: Putting Numeracy Research to Work</p> <p>Chair: Helena Osana, Concordia University</p> <p>1: Martha W. Alibali, University of Wisconsin—Madison</p> <p>2: Sarah Powell, University of Texas at Austin</p> <p>3: Nancy C. Jordan, University of Delaware</p> <p>4: Tracy Solomon, Hospital for Sick Children</p>
S26	EarlyMathAssessment232.1	<p>A variety of early grade mathematics assessments and their uses in South Africa</p> <p>1: Hanrie Bezuidenhout & Elizabeth Henning, University of Johannesburg, South Africa</p> <p>2: Ingrid Mostert, University of Johannesburg, South Africa</p> <p>3: Lara Ragpot, Trinity Western University & Caroline Fitzpatrick, Université Sainte-Anne</p> <p>4: Ingrid Mostert, University of Johannesburg, South Africa</p>
S27	MathAndLanguage151.2	<p>Linguistic influences on early numerical development</p> <p>1: Mojtaba Soltanlou, University of Tuebingen, Tuebingen</p> <p>2: Krzysztof Cipora, University of Tuebingen, Tuebingen, Germany</p> <p>3: Jacob Paul, Utrecht University, Utrecht, Netherlands</p> <p>4: Victoria Simms, Ulster University, Northern Ireland</p> <p>5: Thomas Gallagher-Mitchell, Liverpool Hope University</p>

3:10 – 4:15 Symposia session 10

S28	MathAndTechnology79.1	<p>Is touch screen technology a double-edged sword in mathematics education?</p> <p>1: Joanne Lee, Developmental Psychology, Department of Psychology Wilfrid Laurier University</p> <p>2: Adam K. Dubé, Learning Sciences, McGill University</p> <p>3: Marjorie W. Schaeffer, Department of Psychology, University of Chicago</p> <p>Discussant: Erin Maloney, School of Psychology, University of Ottawa</p>
S29	EarlyMathSkills43.2	<p>Early symbolic numerical skills: theoretical and educational implications.</p> <p>1: Francesco Sella, University of Sheffield, UK</p> <p>2: Rose M. Schneider, University of California, San Diego, USA</p> <p>3: Camilla Gilmore, Loughborough University, UK</p> <p>4: Silke M. Göbel, University of York, UK</p>
S30	MathLearning75.3	<p>Understanding the Factors Affecting Mathematics Development and Supporting Children Through Home and School Interventions</p> <p>Chair: Sheri-Lynn Skwarchuk, University of Winnipeg, Canada</p> <p>1: Maureen Vandermaas-Peeler, Elon University,</p> <p>2: Sarah Melo, Faculty of Education, University of Manitoba</p> <p>3: Prentice Starkey, WestEd, San Francisco, California</p> <p>4: Jalisha Braxton, University of Chicago, Chicago, Illinois, USA</p>

