

Delta 2011 Full Programme

Day 1: Sunday 27 November

3:00pm Registration

5:00pm Opening Ceremony at Millennium Hotel
Powhiri, Opening address, Reception – drinks and finger food

Day 2: Monday 28 November – TEACHERS' DAY

		Session 1 Mokoia Room	Session 2 Millennium 1	Session 3 Millennium 4	Session 4 Millennium 3
8:45am	Notices				
9:00am	Plenary	John Mason Being Definitive with Definitions Chair: Judy Paterson			
10:00am	Morning tea				
10:30am	Talks	Caroline Yoon	Lim-Teo et al.	Padayachee	Tilton
		Invited Talk 1 hr Moving Forwards By Walking Backwards: Inverse Problems in Te Ara Mokoroa Chair: Mike Thomas	Student Teachers' Understanding of Fundamentals in Mathematics Kawski	Exploring a DVD Driven Approach For Teaching and Learning Mathematics, at Secondary School Level, With a Framework of Blended Learning Gordon, Nicholas	A Content Focused Professional Development Project For Teachers of Mathematics From Design and Implementation Through Evaluation Chua
11:00am	Talks		Math Circles: Innovative Communities for Doing Mathematics	Challenges and Responses: Lessons From Students in Mathematics Bridging Courses	Pre-service Undergraduate Teachers' Pedagogical Content Knowledge
11:30am	Talks	Chris Sangwin	Miskell et al.	Kensington-Miller et al.	Tsanwani et al.
		Invited Talk 1 hr The Mathematics of Assessment Chair: Bill Barton	Tertiary Students' Diagrams For Reasoning About Proportions in Three Dimensions Harris et al.	Lecturer Change: Espoused Versus Enacted Beliefs About Teaching in Large Undergraduate Mathematics Lectures Al-Harbi	Thoughts Expressed by Teachers and Learners on Factors That Facilitate Learners' Performance in Mathematics in South Africa Bansilal, Hartley
12noon	Talks		A Professional Development Model For Middle School Teachers of Mathematics	A Suggested Framework of a Remedial Teaching Strategy in Correcting Common Mistakes in the Processes on Fractions and Decimals for Preparatory Year Program Students at Taibah University	The Challenges of Upgrading Practicing Mathematics Teachers in South Africa

		Session 1 Mokoia Room	Session 2 Millennium 1	Session 3 Millennium 4	Session 4 Millennium 3
12:30pm	Lunch				
2:00pm	Plenary	Ruth Peterson, Ako Aotearoa Our Work in Mathematics and Statistics Education			
2:30pm	Talks	Kensington-Miller et al.	Klymchuk, Thomas	Beisiegel	Assuah
		Learning Mathematics Pacific Style	The Influence of Attention on Mathematical Knowledge of Teachers and Lecturers: A Comparison	Workshop 1 hr Exploring Mathematical Quality of Instruction	Teachers' Oral Communication Behaviours in the Mathematical Problem Solving Classroom: The Ghanaian Students' Perspective
3:00pm	Talks	Goos	Stewart, S. & W.		Dekkers et al.
		Mathematical Knowledge for Teaching: What Do Secondary School Teachers Need?	A Decision Making Model of Contingent Teaching Enabled Through Classroom Response Systems		Using Technology To Provide a Supportive Mathematical Pathway Into University
3:30pm	Afternoon tea				
4:00pm	Talks	Paterson et al.	Ratheal	Reese, Woods	Sullivan, Gandell
		Conversations About Curriculum Change: Mathematical Thinking and Team Based Learning in a Discrete Mathematics Course	Workshop 1 hr How Individual Personalities Affect Achievement and Behaviour	Ironies in Mathematics Professional Development	Model Eliciting Activities – A Teachers' Perspective
4:30pm	Talks	Jennings		Nataraj	McLeod
		The Transition From High School to University: The University of Queensland Perspective		Using History to Deepen Teachers' Understanding of a General Positional Notation	What Do We Want Students to Learn About Mathematics in Preparation for University – And How Can We Help Them Learn It?
Evening	Happy Hour (Millennium)				

Day 3: Tuesday 29 November

		Session 1 Mokoia Room	Session 2 Millennium 1	Session 3 Millennium 4	Session 4 Millennium 3
8:45am	Notices				
9:00am	Plenary	Jennifer Brown Title Beyond Statistical Methods: teaching Critical Thinking to First Year University Students Chair: Sharleen Forbes			
10:00am	Morning tea				
10:30am	Talks	Lovric	Badger	Beisiegel	Belward et al.
		Learning Mathematics in Interdisciplinary Context	Quantitative Analysis of a Moore Method course in the UK	Challenges in Preparing Future Mathematicians for Tertiary Mathematics Teaching	Applying Mathematical Thinking: The Role of Mathematicians and Scientists in Equipping the New Generation Scientist
11:00am	Talks	Yoon et al.	Britton, Henderson	Benadé	Bukhatwa et al.
		Gestures and Insight in Advanced Mathematical Thinking	Teaching and Learning Proof-Writing in Linear Algebra	A Story of Teaching Mathematics to Economical Sciences Students	Exploring Learning Design in Tertiary Mathematics
11:30am	Talks	Hannah et al.	van der Hoff et al.	Engelke Infante, Cadwallader Olsker	David, Brown
		Analysing Lecturer Practice: The Role of Orientations and Goals	Numerical Investigation into the Existence of Limit Cycles in Two Dimensional Predator-Prey Systems	Student Difficulties in the Production of Combinatorial Proofs	Out of the Ashes – A Case Study: Christchurch, New Zealand Post Earthquake 22/02/2011. A Paradigm Shift, Students and Staff Have a Radically Altered Environment. How to Respond?
12noon	Talks	Lin, Thomas	du Preez	Easdown	D'Arcy Warmington
		Student Understanding of Riemann Integration: The Role of the Dynamic Software GeoGebra	Do we Trick or Train Our students in Maths?	Excursions to and From Semantic Oblivion	Mayhem, Madness and Mathematics
12:30pm	Lunch				

		Session 1 Mokoia Room	Session 2 Millennium 1	Session 3 Millennium 4	Session 4 Millennium 3
2:00pm	Talks	Ng	Klymchuk et al.	Han Hyuk Cho	Heard
		Using an Advanced Graphing Calculator in the Teaching and Learning of Calculus	University Lecturers' Views on the Transition from Secondary to Tertiary Education in Mathematics: An International Survey	3D Microworld Learning Environment for Discrete Mathematics	Using Maple TA™ in Undergraduate Mathematics
2:30pm	Talks	Scataglina-Belghitar, Mason	Hill, Kennett	Ho et al.	Kagesten, Baravdish
		Teaching Takes Place In Time, while Learning Takes Place Over Time: Maturation of Mathematicians Seen as Phase Transitions in Te Ara Mokoroa	Mapping the Gap	Incorporating Partially Completed Worked Examples with Scaffolding Instructions in a Calculus Course to Facilitate Student Learning: To What Effect?	Mattetek as a Learning Platform for the Course Linear Algebra
3:00pm	Talks	Paterson et al.	Mangelsdorf, King	Matthews	McCallum
		Decisions, Decisions, Decisions: What Determines the Path Taken in Lectures?	The Changing Face of Mathematics Under the Melbourne Model	Mathematics in Science Higher Education: Narrative Enquiry and an Analytical Framework For Exploring the Student Experience	The Illustrative Mathematics Project
3:30pm	Afternoon tea				
4:00pm	Talks	Loch et al.	Kennett, Hill	Khan, Yushau	Johnson, Koerber
		Learner-centred Mathematics and Statistics Education Using Netbook Tablet PCs	Using Video Clips to Support Student Learning	Analysis of Foundation Year Mathematics Curricula: Comparing International Trends With King Fahd University of Petroleum and Minerals	Experiences with Computer Aided Assessment in Large Mathematics Courses

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4:30pm	Talks	Benhayón, Oliva	Williams	Fay	Lozanovski et al.
		The Fractal Structure for Generic- competency Development Based on a Mathematics Course Experience	MapleTA Assessment: Earthquake Accelerations	The Damped Pendulum	Incorporating Student Response Systems in Mathematics Classes
Evening	Welcome Reception – First time Delta delegates				

Day 4: Wednesday 30 November - Excursion Day

Day 5: Thursday 1 December

		Session 1 Mokoia Room	Session 2 Millennium 1	Session 3 Millennium 4	Session 4 Millennium 3
8:45am	Notices		Engineering	Statistics	
9:00am	Plenary	David Holgate Enhancing Student Learning Chair: Ansie Harding			
10:00am	Morning tea				
10:30am	Talks	Begg	Schott	Pfannkuch et al.	Black
		Mathematics 101: Reconsidering the Axioms	Limits to Growth and Mathematical Basics	Inference and the Introductory Statistics Course	DIY Maths: Initial Findings on a Curated Learning Object
11:00am	Talks	Harding et al.	Plank et al.	Stewart, W. & S.	McCluskey
		Implementing Supplemental Instruction For a Large Group in Mathematics	Group by Subject or by Ability? Tertiary Mathematics for Engineering Students	Teaching Bayesian Statistics: Making and Breaking Traditions	What are our Senior Undergraduates of Mathematics Learning? A Mathematician's Hope
11:30am	Talks	Craig	Martinez- Luaces, et al.	Satianov et al.	Mofolo-Mbokane et al.
		Categorisation and Analysis of Explanatory Writing in Mathematics	A Different Perspective For Pre-Integrals and Lyapunov Functions Teaching in Engineering Math Courses: A Real Problem Study	Tangible Models in Teaching of Calculus	Learning Difficulties With Solids of Revolution

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12noon	Talks	Huntley	Barton	Penny	Nagaoka
		A Model For Measuring the Quality of a Mathematics Question	Growing Understanding of Undergraduate Mathematics: A Good Frame Produces Better Tomatoes	Sampling Theory, Survey Methodology or Survey Theory?	Jumping Over a Gap as the Base of Learning
12:30pm	Lunch				
2:00pm	Talks	Alex James	Craig	Maposa	Nelson, Porter
		Invited Talk 1 hr Having Fun With the First Year Engineers Chair: John Hannah	Conceptions of Mathematics among Engineering Students – A Puzzle in the Context of Identity	Sharing my Experience in the Teaching and Learning of Mathematics and Statistics at Undergraduate Level: Challenges and Mitigation Strategies	Building Leadership Capacity in the Development and Sharing of Mathematics Learning Resources Across Disciplines and Universities
2:30pm	Talks		Engelbrecht et al.	Kachapova, Kachapov	Oluwafemi
			Conceptually and Procedurally Oriented Mathematics Studies in Engineering Education: A Comparative Study	Population Regression Model in University Courses	Algebras, Lattices, Varieties
3:00pm	Talks	Wood et al.	Murphy	Gunn	Paulsen
		Professional Development for Teaching in Higher Education	Essential Characteristics for Engineering Mathematics Learners	Towards an Understanding of Statistical Task Design	The Problem with Problem Solving
3:30pm	Afternoon tea				

		Session 1 Mokoia Room	Session 2 Millennium 1	Session 3 Millennium 4	Session 4 Millennium 3
4:00pm	Talks	Dagan, Satianov	David Smith	Kyng et al.	Ponce-Campuzano, Rivera-Figueroa
		The One Variable Function Investigation as a Model of Exploratory Thinking	Workshop 1 hour Mathematics in Gilbert and Sullivan	Academics' Perceptions of the Use and Relevance of Software in Mathematics, Statistics, Econometrics and Finance	Using Computer Algebraic Systems to Compute Antiderivatives: Showing Some Mathematical Facts that Should not be Neglected
4:30pm	Talks	Yatabe		Fletcher et al.	Ruhl et al.
		The Negative Spiral of Mathematical Education in Japan		Investigating Success Rates of First Level Statistics Students – A Case for Innovative Intervention	A Systematic Analysis of Errors in the Simplification of a Rational Expression
5:00pm	Talks	Bartholomew et al.		Hankin	Oates et al.
		"I'm a Natural and I Do it For Love!": Exploring Students' Accounts of Studying Mathematics		Explicit Demonstrations of the Frequentist Paradigm in a Lecture Theatre Context	Competing or Complementary? Student Perceptions of Live and Recorded Lectures as Learning Resources in Undergraduate Mathematics
Evening	Conference Dinner: Blue Baths				

Day 6: Friday 2 December

		Session 1 Mokoia Room	Session 2 Millennium 1	Session 3 Millennium 4	Session 4 Millennium 3
				Statistics	
9:00am	Plenary	Peter Adams Neither Flesh, Fish nor Good Red Herring: Mathematics for Science Students Chair: Cristina Varsavsky			
10:00am	Morning tea				
10:30am	Talks	Victor Martinez- Luaces	Holgate	Edwards et al.	Todd
		Invited Talk 1 hr Mathematics and its Connections With Technical Subjects, the Real World and Professional Life Chair: Johann Engelbrecht	Delivering Mathematics Lectures with Tablet PCs: Lecturer and Student Reflections	The Use of the Interactive E-Book CAST in a First Year Business Statistics Paper	How do Undergraduate Mathematics Students Want to Learn?

		Session 1 Mokoia Room	Session 2 Millennium 1	Session 3 Millennium 4	Session 4 Millennium 3
11:00am	Talks		Sheryn et al.	Dunn et al.	Tobin, Weiss
			Perceived Route to Success by Pasifika Tertiary Students	Instructor Perceptions of Using a Mobile Phone-Based, Free Classroom Response System in First-Year Statistics Undergraduate Courses: Implications For Teaching Practice	Teaching Differential Equations in Undergraduate Mathematics: Technology Issues for Service Courses
11:30am	Talks	Waldock	Schmidt, Köhler	Cheang	Tularam, Amri
		So, Just What Should a Mathematics Degree Consist of?	Teaching Mathematics in the PC Lab – The Students' Viewpoints	The Use of R Language in the Teaching of Statistical Inference	Tertiary Mathematics Learning and Performance in First Year Mathematics in the Environmental Sciences: A Case of Student Preparedness For Learning Mathematics
12noon	Talks	Worsley	Uppal	Bilgin et al.	Varsavsky et al.
		Identifying Major Concepts in two Second Level Undergraduate Mathematics Courses	Problems Encountered in Teaching Mathematics to Undergraduates in Kenya	A Statistical Consulting Capstone Unit: What to Assess?	Undergraduate Mathematics Around the World
12:30pm	Closing Ceremony				
1:00pm	Lunch				