			Room A	Room B	Room C					
July 24	09:00-10:00	Invited Talk/Busi Stein		-	-					
	10:00-10:20	break								
	10:20-12:00	session	12 - Computational Algebraic Geometry	4 - Polyhedral methods in geometry and optim	6 - Post Quantum Groups					
	12:00-13:30	lunch								
	13:30-15:10	session	12 - Computational Algebraic Geometry	4 - Polyhedral methods in geometry and optim	6 - Post Quantum Groups					
	15:10-15:30	break								
	15:30-17:10	session	12 - Computational Algebraic Geometry	14 - Towards Composable Mathematical Softw	1 - General Session					
	17:10-19:00	Welcome Reception in McKenna Hall Atrium								
			Room A	Room B	Room C					
July 25	09:00-10:00	Invited Talk/Busi Hales		-	-					
	10:00-10:20	break								
	10:20-12:00	session	12 - Computational Algebraic Geometry	15 - Management of Mathematics	2 - Algorithms and Applications for Curves and Surfaces					
	12:00-13:30	lunch								
	13:30-15:10	session	11 - Backtrack search techniques in group	15 - Management of Mathematics/19 - Formal	2/3 - Algorithms and Applications for Curves and Surfaces/Symbolic Summation and Integration					
	15:10-15:30	break								
	15:30-17:10	session	11 - Backtrack search techniques in group	19 - Formal and Informal Corpora	3 - Symbolic Summation and Integration					
			Room A	Room B	Room C					
July 26	09:00-10:00	Invited Talk/Busi Bornemann		-	-					
	10:00-10:20	break								
	10:20-12:00	session	8 - Machine Learning for Mathematical Sc	10 - Mathematical Interfaces	7 - Groebner bases					
	12:00-13:30	lunch								
	13:30-15:10	session	8 - Machine Learning for Mathematical Sc	10 - Mathematical Interfaces	7 - Groebner bases/20 - Software for Mathematical Reasoning					
	15:10-15:30	break								
	15:30-17:10	session	9 - SCSC	10 - Mathematical Interfaces	20 - Software for Mathematical Reasoning					
			Room A	Room B	Room C					
July 27	09:00-10:00	Invited Talk/Busi Business		-	-					
	10:00-10:20	break								
	10:20-12:00	session	9 - SCSC/18 - Quantifier Reasoning	16 - Software for exact and certified numeric c	13 - Symbolic Combinatorics					
	12:00-13:30	lunch								
	13:30-15:10	session	18 - Quantifier Reasoning	16/1 - Software for exact and certified numeric computations/General session							
	15:10-15:30	break								
	15:30-17:10	session								

			Room A	Room B	Room C			
July 24	09:00-10:00	Invited Talk/Busi	Stein	-	-			
	10:00-10:20	break						
	10:20-12:00	session	12 - Computational Algebraic Geometry	4 - Polyhedral methods in geometry and optimization	6 - Post Quantum Groups			
	talks	1	Alicia Dickenstein, Mercedes Perez Millan, Anne Shiu, and Xiaoxian Tang - Investigating multi	Xavier Allamigeon - First steps in the formalization of convex polyhedra in Coq	Bianca Sosnovski, Recents Developments in Cayley Hash Functions			
		2	Ethan Petersen, Nora Youngs, Ryan Kruse, Dane Miyata, Rebecca Garcia, Luis David Garcia	Ben Braun - Counting lattice points in lattice polytopes	Kelsey Horan, The Hidden Subgroup Problem and Post-quantum Group-based Cryptography			
		3	Hashemi et al. - Universal Groebner Basis for Parametric Polynomial Ideals	Leon Eiffler - Investigating Chvatal's conjecture using exact SCIP and VIPR	Alexander Wood, Private-Key Fully Homomorphic Encryption for Private Classification			
		4	Hong et al. - Global Identifiability of Differential Models	Michael Joswig - Enumerating triangulations of cyclic polytopes	Jonathan Gryak, Cryptanalysis of Group-Theoretic Cryptosystems via Machine Learning			
	12:00-13:30	lunch						
	13:30-15:10	session	12 - Computational Algebraic Geometry	4 - Polyhedral methods in geometry and optimization	6 - Post Quantum Groups			
	talks	5	Nida Obatake - The capacity for Hopf bifurcations in the fully distributive dual-site phosphorylat	Taylor Brysiewicz - Numerical Software for Computing Newton Polytopes	Mariya Bessonov, A framework for unconditionally secure public-key encryption (with possible decryption errors)			
		6	Jonathan Hauenstein, Avinash Kulkarni, Emre C. Sertöz, and Samantha Sherman - Certifying	Jeff Sommars - Computing tropical prevarieties	Zoran Sunic, Quadratic time algorithm for inversion of binary permutation polynomials			
		7	Robert H. Lewis - Image Analysis: Identification of Objects via Polynomial Systems	Ruriko Yoshida - Tropical Principal Component Analysis and its Applications to Phylogenetics	Matluba Khodjaeva, Efficient and Secure Delegation to a Single Malicious Server: Exponentiation over Non-Abelian Groups			
		8	Dan Bates, Danielle Brake, Matt Niemerg - Paramotopy: Parameter homotopies in parallel	Yue Ren - Tropicalized quartic curves of genus 3				
	15:10-15:30	break						
	15:30-17:10	session	12 - Computational Algebraic Geometry	14 - Towards Composable Mathematical Software	1 - General Session			
	talks	9	Michael Burr, Juan Xu, and Chee Yap - Software for Certifying Homotopy Continuation Paths:	Michael Kohlhase - Composing Mathematical Software Systems via the Math-in-the-Middle Paradigm	Michael Monagan and Baris Tuncer: Sparse multivariate polynomial factorization: a high-performance design and implementation.			
		10	Margaret Regan, Jonathan Hauenstein, Danielle Brake - polyTop: Software for computing topo	William Stein - SageMath: an approach to unifying open source mathematical software	Annie Cuyt, Engelbert Tijskens, Matteo Briani, Ferre Knaepkens and Wen-Shin Lee: SPARSIMATICS: a mathematics toolbox for sparse problems			
		11	Tianran Chen - Libtropicon: a highly scalable library for computing intersections of tropical hyp	Sebastian Gutsche - Integrating GAP and Julia - JuliaInterface and Gap.jl	Michela Ceria, Teo Mora and Andrea Visconti: Efficient computation of squarefree separator polynomials			
		12	Anton Betten - Classifying Cubic Surfaces over Small Finite Fields	Tim Daly - Proving Axiom Sane	Oleg Marichev: Computability of general integrals and integral transforms			

				Room A	Room B	Room C				
July 25	09:00-10:00		Invited Talk/Busi	Hales	-	-				
	10:00-10:20		break							
	10:20-12:00		session	12 - Computational Algebraic Geometry	15 - Management of Mathematics	2 - Algorithms and Applications for Curves and Surfaces				
	talks		1	Jaime Gutierrez, Jorge Jimenez Urroz - Eisenstein criteri	Daniel S. Katz and Neil Chue Hong -- Software	Mourrain -- Axl, a geometric modeler for semi-algebraic shapes				
			2	Sascha Timme - HomotopyContinuation.jl: A package fo	Hagen Chrapary and Wolfgang Dalitz -- Softwa	Caravantes, Gonzalez-Vega: On the interference problem for ellipsoids: new closed form solutions and applications				
			3	Anton Leykin - Homotopy continuation in Macaulay2	Michael Kohlhase -- Math Object Identifiers --	Lewis -- Resultants, Implicit Parameterizations, and Intersections of Surfaces				
			4	Jose Rodriguez - Implementations of symbolic-numeric a	Wolfram Sperber -- Mathematical research dat	Burr -- Practical Considerations for Subdivision-based Algorithms for Curves and Surfaces				
	12:00-13:30		lunch							
	13:30-15:10		session	11 - Backtrack search techniques in groups and combina	15 - Management of Mathematics/19 - Formal	2/3 - Algorithms and Applications for Curves and Surfaces/Symbolic Summation and Integration				
	talks		5	Chris Jefferson -- The Theory and Practice of Refiners in	Katja Berčič and Janoš Vidali --Towards a fing	Pataranutaporn -- de Boor-suitable (DS) T-splines				
			6	Paula Hahndel, Rebecca Waldecker -- Questions on orb	Urban -- First Experiments with Neural Transla	Yap -- A New ϵ-Isotopic Curve Tracing via Subdivision				
			7	Robin Candy -- Towards practical subgroup conjugacy	Dong -- NLP and Large-scale Information Retr	Cheng -- Plotting real planar implicit curves and its applications				
			8	Mattias Koch -- Using Strong Paths to Solve Isomorphisr	Farmer -- A New Style of Mathematical Proof	Wong - Proving and Conjecturing Bounds for some Floor Function Sums				
	15:10-15:30		break							
	15:30-17:10		session	11 - Backtrack search techniques in groups and combina	19 - Formal and Informal Corpora	3 - Symbolic Summation and Integration				
	talks		9	Anton Betten -- How fast can we compute orbits of group	Carneiro -- The Lean 3 Mathematical Library	Chen - Additive Decompositions in Primitive Extensions				
			10	Betten et al -- A Rainbow Clique Search Algorithm for BL	Lewis -- A Bi-directional Extensible Ad Hoc Int	Jiu - Bernoulli Symbol and Sum of Powers				
			11	Markus Pfeiffer -- Backtrack Search in the Free Group	Kapulkin -- Is Univalence Inevitable?	Kapadia - Asymptotic Expansions				
			12	Mun See Chang -- Normalisers in permutation groups as	McAllester -- Set-Theoretic Type Theory	Marichev - Computability of general integrals and integral transforms				

				Room A	Room B	Room C					
July 26	09:00-10:00		Invited Talk/Busi	Bornemann	-	-					
	10:00-10:20	break									
	10:20-12:00	session		8 - Machine Learning for Mathematical Softw	10 - Mathematical Interfaces	7 - Groebner bases					
	talks		1	England - ML for MS	Kang et al - Mathematics Classroom Collab	Moved to Tuesday 11:10: Hashemi et al. - Universal Groebner Basis for Parametric Polynomial Ideals					
			2	Kobayashi et al - Ordering of subformulas	Kim et al - Identification of Errors	Cancelled: Perry - The Dynamic F4 Algorithm					
			3	Sturm - Reduce Switch Points	Noda et al - CindyJS	Lichtblau - Solving Polynomial Systems using Numeric Groebner Bases					
			4	Forrest - Deep Learning in Maple	Nakamura et al - Analyses of pen-based inp	Kauers - Checking Circuits for Integer Multiplication using Groebner bases					
	12:00-13:30	lunch									
	13:30-15:10	session		8 - Machine Learning for Mathematical Softw	10 - Mathematical Interfaces	7 - Groebner bases/20 - Software for Mathematical Reasoning					
	talks		5	Urban - ML for AR	Yoshitomi - Generation of abundant questic	Liu - Application of Groebner bases to Geometrically Nonlinear Analysis of Circular Plates on Pasternak Foundation					
			6	Dong - Mathematical Subject Classification	Shirai et al - Intelligent editor	Palancz et al. - Fitting a Sphere to Point Cloud Data via Computer Algebra					
			7	Gryak et al. - Solving Algorithmic Problems v	Zeng - Intuitive interface for solving eauatio	Jakubov, Kaliszyk - Towards a Unified Ordering for Superposition Calculus Automated Theorem Proving					
			8	Abraham - Heuristics in SMT	Sanderson et al - Sparse matrix class in C+	Alpuente et al. - Inferring Safe Maude Programs with ATAME					
	15:10-15:30	break									
	15:30-17:10	session		9 - SCSC	10 - Mathematical Interfaces	20 - Software for Mathematical Reasoning					
	talks		9	Abraham and Kremer - Incremental CAD	Martins et al - Francy	Williams et al. - Finding a Middle Ground for Computer-Aided Cryptography					
			10	Vale-Enriquez and Brown - UNSAT cores in	Woodroofe - GAP should move beyond the	Padmanabhan, Zhang - Automated reasoning in (semi-) groups with power-maps					
			11	Horacek and Kreuzer - 3BA	Bercic et al - DiscreteZoo	Schoenbaum - A Topos Model for Syntax					
			12	Bright et al - MathCheck	Rao et al - NetPad						

			Room A	Room B	Room C	
July 27	09:00-10:00	Invited Talk/Busi	Business meeting	-	-	
	10:00-10:20	break				
	10:20-12:00	session	9 - SCSC/18 - Quantifier Reasoning	16 - Software for exact and certified numeric computations	13 - Symbolic Combinatorics	
	talks	1	Lisitsa - Andrew Curtis Conjecture	Johansson - Numerical integration in arbitrary-precision ball arithmetic	Pantone - guessfunc	
		2	Mulligan et al - Economics	Ren - Tropical basis verification and its applications	Rowland - IntegerSequences	
		3	Gao - dReal	Leykin - D-finite certification	Wilson - multivariate asymptotics	
		4	Kauers - Symmetries for QBF	Imbach et al - Implementation of a Near-Optimal Complex Root Clustering Alg	Melczer - PI4 program	
	12:00-13:30	lunch				
	13:30-15:10	session	18 - Quantifier Reasoning	16/1 - Software for exact and certified numeric computations/General session		
	talks	5	Urban - Instantiations	Mou - On Parametric GCD		
		6	Chew - QBF proofs systems	Jing Yang and Chee K. Yap: On \mu-Symmetric Polynomials and D-plus		
		7	Barbosa - unification in HOSMT	Vincel Hoang Ngoc Minh: On the global renormalization and regularization of several complex variables zeta functions by computer		
		8	Janota - ML for QBF	Monagan & Tuncer: Sparse Techniques To Speed Up Multivariate Polynomial Factorization		
	15:10-15:30	break				
	15:30-17:10	session				
	talks	9				
		10				
		11				
		12				