

CASC 2026

Schedule

University of Bath, Chancellor's Building (CB2.6)

	Monday, Aug 31.	Tuesday, Sep 1.	Wednesday, Sep 2.	Thursday, Sep 3.	Friday, Sep 4
9:00 - 9:30	Coffee break				
9:30-10:00	Registration & Opening	Session Chair: David Jeffrey Kyle Goosey and Ali Kemal Uncu <i>Customised monomial ordering for Gröbner basis computations</i>	Session Chair: Matthew England Hao Du and Haochen Liu <i>On Sub-algorithm selection for symbolic integration</i>	Session Chair: Katsusuke Nabeshima Qiwei Feng and Yang Zhang <i>Involutions on skew polynomial rings</i>	Session Chair: Michael Jacobson Guillaume Moroz <i>Revisiting numerical factorization of real univariate polynomials</i>
10:00 - 10:30		Joshua Woolaghan and Ali Kemal Uncu <i>Finding more optimal weighted orderings for Gröbner basis computation using machine learning</i>	Bertrand Teguia Tabugua <i>Subsequences and rational recursions for solutions of polynomial difference equations</i>	Mark Giesbrecht <i>Factoring quantum-plane skew polynomials over $\mathbb{Q}(w)(t)$</i>	Rikita Komatsuzaki, Akira Terui, and Masahiko Mikawa <i>Inverse kinematics for a 7-degree-of-freedom robot manipulator using comprehensive Gröbner systems</i>
10:30-11:00		Coffee break			
11:00-11:30	Session Chair: James Davenport Katsusuke Nabeshima and Shinichi Tajima <i>Testing tameness of complex polynomial mappings and computing their bifurcation sets</i>	Session Chair: Stephen Watt Nicolas Faroß and Thomas Sturm <i>Pseudo-complex quantifier elimination</i>	Session Chair: Marc Moreno Maza Joris Van der Hoeven, Grégoire Lecerf, and Arnaud Minondo <i>Short SLPs for sparse polynomial maps</i>	Session Chair: Tian Chen Mark Giesbrecht <i>Computing Smith forms modulo p^2 of sparse matrices faster than matrix multiplication</i>	Session Chair: Carsten Schneider Denis Arzelier, Florent Bréhard, Mioara Joldes, and Jean-Bernard Lasserre <i>Guess-and-prove Newton-Krawczyk certification for multivariate Chebyshev approximation</i>
11:30-12:00	Thi Xuan Vu <i>Symbolic homotopy techniques for structured multivariate polynomial systems</i>	James H. Davenport, Matthew England, and Scott Mccallum <i>Enhanced CAD-based quantifier elimination with multiple equational constraints</i>	Carsten Schneider <i>On symbolic summation in difference rings</i>	Yuki Ishihara <i>Efficient techniques for primary decomposition of symmetric ideals</i>	Joseph Tooby-Smith <i>Physics as code: From scans to theorems with ITP APIs in SU(5) model building</i>
12:00 - 12:30		Rui-Juan Jing, Yuzhuo Lei, Marc Moreno Maza, and Chirantan Mukherjee <i>On the computation of extended convex hulls</i>		Ryo Negishi <i>A note on the unit-root formula for Montgomery curves</i>	
12:30-14:00	Lunch break				
14:00-14:30	Session Chair: Thomas Sturm François Boulier <i>Some developments related to the DeneFLipshitz algorithm</i>	Session Chair: Thi Xuan Vu Lucas Michel, Naim Zenaïdi, and Pierre Mathonet <i>On semi-algebraic sets admitting a minimum adapted CAD</i>	Conference Photo	Session Chair: François Boulier Thieu Vo and Ali Kemal Uncu <i>Autonomous first-order algebraic q-difference equations and their rational solutions</i>	Session Chair: Joseph Tooby-Smith Guangping Yu, Stef Graillat, Hao Jiang, Chun Huang, and Tao Tang <i>A compensated Estrin scheme for accurate polynomial evaluation</i>
14:30-15:00	Victor Edneral <i>Application of the NORT computer algebra package for reducing dynamical systems of ODEs to the normal form</i>	Jiaqi Meng and Jing Yang <i>A complete generalization of Habicht's theorem for subresultants of several univariate polynomials</i>	Excursion	Oleg Kovalev, Alexander Gusev, Le Hai Luong, Vladimir Derbov, Sergue Vinitsky, and Peiwei Wen <i>Symbolic-numerical algorithms for solving boundary value problems by finite element method on hyperellipsoids</i>	Tian Chen and Michael Monagan <i>Accelerating the factorization of multilinear boolean polynomials</i>
15:00-15:30	François Lemaire and Louis Roussel <i>A parametric differential system admitting an integral input-output equation with a fraction</i>	MapleSoft <i>What is new in Maple?</i>		Wolfram <i>What is new in Mathematica?</i>	Amir Abbas Asgari, Haiyang He, Michael Jacobson, and Renate Scheidler <i>Computer generation of explicit formulas for hyperelliptic curve divisor arithmetic</i>
15:30-16:00	Coffee break			Coffee break	
16:00-16:30	Session Chair: Akira Terui Eugenia Maria Betsani and Zafeirakis Zafeirakopoulos <i>Sparse multivariate interpolation and rational generating functions of polyhedra</i>	Session Chair: Bertrand Teguia Tabugua Michael Monagan <i>Computing over algebraic number fields</i>		Business Meeting	Session Chair: Ali Kemal Uncu Victor Y. Pan <i>New combinations of polynomial root-finding iterations</i>
16:30-17:00	Uzma Shafiq, Matthew England, Amir Hosein Sadeghimanesh, and Nayyar Zaidi <i>Letting homogeneity entropy select S-pairs in Buchberger's algorithm</i>	Stephen Watt <i>Look before you leap: Checking in on type tag checking</i>	Closing		
17:00-17:30	Ryusei Matsubayashi and Kosaku Nagasaka <i>GCDHEU revisited: correctness in multivariate case and degree-aware variable ordering</i>	Martin Marchioro, Aske Raahauge, Mark Løvenskjold, Cosmin Oancea, and Stephen Watt <i>On GPU Implementation for multi-precision integer division</i>			