

CASC 2021 Schedule. Venue: Olimpiyskiy prospekt, 1, Adler, Russia

	Monday September 13	Tuesday September 14	Wednesday September 15	Thursday September 16	Friday September 17	
08:30 – 09:30	Registration and opening					
09:30 – 10:00	Session in memory of V.P. Gerdt	Shuto Otaki, Akira Terui, and Masahiko Mikawa, A design and an implementation of an inverse kinematics computation in robotics using real quantifier elimination based on comprehensive Groebner systems	Yuki Ishihara, Efficient localization at a prime ideal without producing unnecessary primary components	Hiromi Ishii, Automatic differentiation with higher infinitesimals, or computational smooth infinitesimal analysis in Weil algebra	Yuji Hashimoto and Koji Nuida, Improved supersingularity testing of elliptic curves using legendre form	09:15 – 10:00 Excursion to Sirius Technopark
10:00 – 10:30		François Boulrier, Sebastian Falkensteiner, Marc Paul Noordman, and Omár León Sanchez, On the relationship between differential algebra and tropical differential algebraic geometry	Amir Hashemi, Matthias Orth, and Werner M. Seiler, Complementary decompositions of monomial ideals and involutive bases	Victor Selivanov and Svetlana Selivanova, Primitive recursive ordered fields and some applications	Zhenbing Zeng, Yuzheng Wang, Sun Xiang, and Yu Chen, On geometric property of Fermat-Torricelli points on sphere	Shinichi Tajima and Katsusuke Nabeshima, A new deterministic method for computing Milnor number of an ICIS
10:30 – 11:00		Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:00 – 11:30		Victor Edneral, Integrability condition as algebraic equations	Başak Karakaş and Zafeirakis Zafeirakopoulos, Using GANs to produce real rooted polynomials of low degree	Peter Karpov, Design of low-artifact interpolation kernels by means of computer algebra	Evangelos Bartzos, Ioannis Emiris, and Charalambos Tzamos, The m-Bézout bound and distance geometry	Kosaku Nagasaka, Relaxed NewtonSLRA for approximate GCD
11:30 – 12:00		Sergey Gutnik and Vasily Sarychev, Computer algebra methods for searching the stationary motions of the connected bodies system moving in gravitational field	Nikolay Osipov and Alexey Kytmanov, Simplification of nested real radicals revisited	Moulay Barkatou and Thomas Cluzeau, On the computation of solutions of linear integro-differential equations		Round table session
12:00 – 12:30		Vladimir Korniyak, Tensor decompositions of quantum systems in finite quantum mechanics	François Lemaire and Adrien Poteaux, Decoupling multivariate fractions	Moulay A. Barkatou, Thomas Cluzeau, and Ali El Hajj, On rational solutions of pseudo-linear systems	Dima Grigoriev, The entropy of the radical of a tropical curve	
12:30 – 13:00		Algirdas Deveikis, Alexander Gusev, Sergue Vinitzky, Andrzej Gozdz, Aleksandra Pedrak, Cestmir Burdik, and George Pogosyan, Symbolic-numeric algorithms for computing orthonormal bases of SU(3) group for orbital angular momentum	Elizabeth Kalinina and Alexei Uteshev, On the real stability radius for some classes of matrices	Timur Sadykov, Horn-Kapranov's uniformization and systems of algebraic equations	Yang Liu, Dmitry Lyakhov, and Dominik Michels, Linearizability property of Lie symmetry algebra	
13:00 – 14:30	Lunch	Lunch	Lunch	Lunch	Lunch	
14:30 – 15:00	Alexander Prokopenya, Mukhtar Minglibayev, and Saltanat Bizhanova, Secular perturbations of translational-rotational motion of a non-stationary axisymmetric body in the central gravitational field	Clemens Hofstadler, Clemens G. Raab, and Georg Regensburger, Computing elements of certain form in ideals to prove properties of operators	Cultural program	Svetlana Selivanova, Florian Steinberg, Holger Thies, and Martin Ziegler, Exact real computation of solution operators for linear analytic systems of partial differential equations	Vitaly Krasikov and Andrey Nesterov, The spatial structure of asymptotics of a solution to a singularly perturbed system of differential equations	
15:00 – 15:30	Valentin Irtegov and Tatiana Titorenko, On first integrals and invariant manifolds in the generalized problem of the motion of a rigid body in a magnetic field	Amirhosein Sadeghimanesh and Matthew England, Improving algebraic tools to study bifurcation sequences of population models		Alexander Petrov, On the conditions for reducing three quadratic forms to the canonical form	Boris Shapiro and Milos Tater, On spectral asymptotics of quasi-exactly solvable quartic potential	
15:30 – 16:00	Evgenii Vorozhtsov and Sergey Kiselev, Optimal four-stage symplectic integrators for molecular dynamics problems	Hamid Rahkooy and Thomas Sturm, Testing binomiality of chemical reaction networks using comprehensive Groebner systems		Anton Betten and Fatma Karaoglu, Isomorphism testing of algebraic varieties using canonical forms	Ali Kemal Uncu, qFunctions: A Mathematica package for partition theory applications, and its future	
16:00 – 16:30	Dmitriy Divakov and Anastasiia Tiutiunnik, Symbolic solution of a system of functional equations arising from the cross-section method	Hamid Rahkooy and Thomas Sturm, Parametric toricity of steady state varieties of reaction networks		Svetlana Topalova and Stela Zhelezova, New parallelisms of PG(3,5) with automorphisms of order 8	Jaime Gutierrez, Computing small roots of the polynomials arising from elliptic curve group operation	
16:30 – 17:00	Coffee break	Coffee break		Coffee break	Coffee break	
17:00 – 17:30	Victor Y. Pan, New progress in polynomial root-finding	Mathieu Hemery, François Fages, and Sylvain Soliman, A polynomialization algorithm for elementary functions and ODEs, and their compilation into chemical reaction networks		Linxiao Wang and Marc Moreno Maza, On the pseudo-periodicity of the integer hull of parametric polyhedral sets	Alexander Brandt and Marc Moreno Maza, On the complexity and parallel implementation of Hensel's lemma and Weierstrass preparation	
17:30 – 18:00	Rémi Imbach and Victor Y. Pan, Root radii and subdivision for polynomial root-finding	Alicia Dickenstein, Families of polynomials in the study of biochemical reaction networks		Marc Moreno Maza and Ryan Sandford, Towards extending Fulton's algorithm for computing intersection multiplicities in higher dimension	Mohammadali Asadi, Alexander Brandt, and Marc Moreno Maza, Computational schemes for subresultant chains	
18:00 – 18:30	Tian Chen and Michael Monagan, Parallel algorithms for factoring multivariate polynomials represented by black boxes		Business meeting			
19:00 – 20:00	Buffet at Omega Sirius Hotel					