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	**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 Boulier, 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	**Svetlana Selivanova, Florian Steinberg, Holger Thies, and Martin Ziegler,** Exact real computation of solution operators for linear analytic systems of partial differential equations	**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	**Vitaly Krasikov and Andrey Nesterov,** The spatial structure of asymptotics of a solution to a singularly perturbed system of differential equations	**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 Kornyak,** 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 Vinitsky, 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**	**Boris Shapiro and Milos Tater,** On spectral asymptotics of quasi-exactly solvable quartic potential	**Victor Selivanov and Svetlana Selivanova,** Primitive recursive ordered fields and some applications
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	**Peter Karpov,** Design of low-artifact interpolation kernels by means of computer algebra
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**				

Session in memory of V.P. Gerdt