

Program of the 6th international conference “Computer algebra”.

The plenary talks are marked by *.

Moscow time (UTC +3)

Monday, June 23

11:00 – 11:15 Opening.

Morning session. Chair: T.M.Sadykov

11:15 – 11:40 V.F. Edneral. *On the Integrability of an ODE System with an Inhomogeneous Right-Hand Side*

11:45 – 12:10 V.I. Zubov. *On the Determination of the Volumetric Heat Capacity and the Thermal Conductivity of a Substance in the Three-Dimensional Case*

12:15 – 12:55 * Yu.A. Blinkov. *Gröbner Bases for Investigating and Solving Polynomial and Differential Systems*

13:00 – 14:30 Break

Afternoon session. Chair: Yu.A. Blinkov

14:30 – 14:55 A.A. Petrov, O.V. Druzhinina, O.N. Masina. *Symbolic Computing in the Constructing Problem of Controlled Compartmental Model*

15:00 – 15:25 V.V. Kornyak. *Quantum Mechanics Through the Lens of Finite Groups: Computer Algebra Insights*

15:30 – 15:55 A.S. Kuleshov, A.D. Skripkin. *Existence of Liouvillian Solutions in the Problem of Motion of a Heavy Gyrostat Under the Action of Gyroscopic Forces*

16:00 – 16:25 B. Chen, E.V. Zima. *Block Fermat Numbers in Modular Arithmetic*

16:30 – 16:55 A.A. Mikhalev. *Combinatorics of Lyndon-Shirshov Words and Algorithms of Symbolic Computation in Lie Superalgebras*

Tuesday, June 24

Morning session. Chair: A.V. Seliverstov

11:00 – 11:25 M.N. Gevorkyan, D.S. Kulyabov, A.V. Korolkova, L.A. Sevastianov. *The Dual Quaternion Algebra and its Implementation in Asymptote Language*

11:30 – 11:55 Sh. Chen, M. Kauers, Chr. Koutschan, Xiuyun Li, Rong-hua Wang, Yisen Wang. *Non-Minimality of Minimal Telescopers Explained by Residues*

12:00 – 12:40 * A.D. Bruno, A.B. Batkhin. *Integrable Cases of the Euler–Poisson Equations*

12:45 – 13:10 A.D. Bruno, A.A. Azimov. *Parametric Expansions of an Algebraic Variety Near its Singularities*

13:10 – 14:30 Break

Afternoon session. Chair: D.S. Kulyabov

14:30 – 14:55 E.D. Volchkova, Ks.Yu. Malyshev. *On the Summation of Fourier Series over the Roots of Transcendental Equations Using Annihilation*

15:00 – 15:25 A.V. Mesyanzhin, Yu.A. Blinkov. *Symbolic Investigation of a Difference Scheme for Wave Processes in Coaxial Elastic Cylindrical Shells Filled with an Incompressible Viscous Fluid*

15:30 – 15:55 G.A. Khaziev, A.V. Seliverstov, O.A. Zverkov. *Searching for an Imperfect Palindrome*

16:00 – 16:25 R. Dougherty-Bliss, M. Kobayashi, N. Ter-Saakov, E.V. Zima. *On Relative Primality and Other Properties of Trinomials*

Wednesday, June 25

Morning session. Chair: S.A. Gutnik

11:30 – 11:55 A.B. Batkhin, Z.Kh. Khaydarov. *Formal Stability Investigation in Hamiltonian Systems with Resonances*

12:00 – 12:25 O.O. Kovalev, B. Batgerel, A.A. Gusev, Luong Le Hai, O. Chuluunbaatar, S.I. Vinitsky. *Moshinsky Atom as a Test for FEM on Hypercubes*

12:30 – 12:55 A.I. Muratova, A.A. Gusev, A.G. Zorin, S.I. Vinitsky. *FEM Calculations of Coulomb Two Center Problem*

13:00 – 14:30 Break

Afternoon session. Chair: L.A. Sevastianov

14:30 – 14:55 A. Prokopenya, M. Minglibayev, A. Ibraimova. *Symbolic Computation in Studying the Dynamics of Two-Body System with Variable Masses*

15:00 – 15:25 A.V. Seliverstov. *The Generic-Case Complexity of Finding a Binary Solution to a System of Linear Equations*

15:30 – 15:55 S.A. Gutnik. *Investigation of the Periodic Planar Oscillations of a Two-Body System in an Elliptic Orbit Using the Computer Algebra Methods*

16:00 – 16:40 * C.E. Arreche. *Deciding Summability via Residues in Theory and in Practice*

16:45 – 17:10 S.A. Abramov, A.A. Ryabenko. *Matrices of Infinite Series: Checking Non-Singularity Based on Truncations*