
Wednesday, October 24
10:00

PLENARY SESSION.1
Small Conference Hall

LIMITS DETAIL AND FORMULATION OF THE MODEL EQUATIONS OF CONTINUOUS MEDIA

B. N. Chetverushkin
Keldysh Institute of Applied Mathematics of RAS, Moscow, Russia

P101

SUPERCOMPUTER SYSTEMS AND EDUCATION ISSUES

V. V. Voevodin
Research Computing Center of Moscow State University

P102

CURRENT STATE AND DEVELOPMENT PROSPECTS OF HIGH-END HPC SYSTEMS

S. M. Abramov, E. P. Lilitko
Ailamazyan Program Systems Institute of RAS, Pereslavl-Zalessky, Russia

P103

FROM NUMERICAL MODELLING TO ALGEBRAIC

N. N. Nepejvoda
Ailamazyan Program Systems Institute of RAS, Pereslavl-Zalessky, Russia

P104

Wednesday, October 24
14:00

SECTION A.1

Small Conference Hall

**PARALLEL METHODS AND ALGORITHMS
OF SIMULATION, OPTIMIZATION AND CONTROL**

Co-Chairmen:
Aleksandr G. Chentsov
Otu Vaarmann

SECTION B.1

Auditorium 1

**ARCHITECTURE OF PARALLEL
AND DISTRIBUTED SYSTEMS**

Co-Chairmen:
Sergey A. Stepanenko
Yuriy S. Zatuliveter

SECTION F.1

Auditorium 2

PARALLEL COMPUTING IN APPLICATIONS

Co-Chairmen:
Sergey N. Andrianov
Boris Ya. Steinberg

A101

**DYNAMIC PROGRAMMING IN EXTREMAL ROUTE
PROBLEMS: GENERAL THEORY AND ELEMENTS
OF PARALLEL STRUCTURE**

A. A. Chentsov, A. G. Chentsov, P. A. Chentsov (Institute of Mathematics and Mechanics, Ural Branch of RAS, Yekaterinburg, Russia)

B101

**EXASCALE SUPERCOMPUTERS. ARCHITECTURAL
OUTLINES**

S. A. Stepanenko, V. V. Yuzhakov (Russian Federal Nuclear Center – All-Russian Research Institute of Experimental Physics. Institute of Theoretical and Mathematical Physics, Sarov, Russia)

F101

**VIRTUAL ACCELERATOR – A DISTRIBUTE ENVIRONMENT
FOR ACCELERATOR FACILITIES MODELING
AND CONTROL**

S. N. Andrianov (Saint Petersburg State University, Saint Petersburg, Russia)

A102

**CONSTRUCTING A DECOMPOSITION SET FOR
DISTRIBUTED SOLVING OF SAT-PROBLEMS IN THE
PROJECT OF VOLUNTEER COMPUTING SAT@HOME**

O. S. Zaikin (Institute for System Dynamics and Control Theory, Siberian Branch of RAS, Irkutsk, Russia), M. A. Posypkin (Institute for Systems Analysis of RAS, Moscow, Russia), A. A. Semenov (Institute for System Dynamics and Control Theory, Siberian Branch of RAS, Irkutsk, Russia)

B102

**TO THE DEVELOPMENT OF DOMESTIC CHIP
COMPONENTS (VLSI) FOR COMPUTING WITH MASSIVE
PARALLELISM. ELEMENTS OF THE FORWARD
TECHNOLOGY STRATEGY**

Yu. S. Zatuliveter, E. A. Fishchenko (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia), S. E. Artamonov, V. A. Kozlov (International Design & Marketing, Zelenograd, Moscow, Russia)

F102

**PARALLEL AND DISTRIBUTED COMPUTATIONS
IN PROBLEMS OF CIRCUIT DESIGN**

O. V. Abramov (Institute of Automation and Control Processes, Far East Division of RAS, Vladivostok, Russia)

A103

**PARALLELISM IN NP-COMPLETE PROBLEMS SUCH AS
SATISFIABILITY PROBLEM**

S. I. Uvarov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

B103

**ABOUT THE CHIP DISTRIBUTION BETWEEN MEMORY
AND COMPUTATION CORES**

B. J. Steinberg (Southern Federal University, Rostov-on-Don, Russia)

F103

**STABILITY EVALUATION OF CONTROL SYSTEM FOR
ELECTRIC VEHICLE CHARGING STATIONS NETWORK**

A. P. Davydova, S. A. Lupin (National Research University MIET, Moscow, Zelenograd, Russia)

A104
USING VOLUNTEER DISTRIBUTED COMPUTING ON BOINC PLATFORM FOR QUALITY ANALYSIS OF SEPARATIONS OF PARALLEL LOGIC CONTROL ALGORITHMS
E. I. Vatutin (South West State University, Kursk, Russia)

B104
DECOMPOSITIONAL AND CELLULAR PARALLEL ALGORITHMS FOR POLYNOMIALS EVALUATION ON THE LEVEL OF FUNCTIONAL ELEMENTS OF VLSI
N. A. Lookin (Institute of Engineering Sciences, Yekaterinburg, Russia)

F104
AUTOMATION SEARCHING OF ALTERNATIVE SIMULATION ENVIRONMENT SPECIFICATIONS
A. G. Oleynik, A. S. Nevedrov (Institute for Informatics and Mathematical Modelling of Technological Processes of the Kola Science Center, Apatity, Russia)

A105
ON A MULTI-LEVEL APPROACH TO THE GENERATION OF PARETO POINTS FOR COMPLEX SYSTEMS
A. Leibak (Tallinn University of Technology, Department of Mathematics, Tallinn, Estonia), A. Seletski, O. Vaarmann (Institute of Cybernetics at Tallinn University of Technology, Tallinn, Estonia)

B105
ONLINE COMPRESSION OF VISUAL DATA ON GPU
I. V. Perminov (Saint Petersburg National Research University of Information Technologies, Mechanics and Optics, Saint Petersburg, Russia)

F105
MODEL OF THE AUTOMATED MONITORING OF PROCESS OF THE DISTRIBUTED DESIGNING OF COMPLICATED SYSTEMS
V. V. Pavelyev (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

A106
PARALLEL COMPUTATIONS IN PROBLEMS OF WELL PLACEMENT ON OIL AND GAS FIELDS
A. I. Ermolaev, A. M. Kuvichko (Gubkin Russian State University of Oil and Gas, Moscow, Russia)

B106
DEVELOPMENT OF HIGH-PERFORMANCE PARALLEL SCALING ALGORITHM
I. V. Egorov, A. A. Vnukov (Moscow Institute of Electronics and Mathematics of National Research University Higher School of Economics, Moscow, Russia)

F106
PARALLEL COMPUTING IN THE TASK OF CONSTRUCTING SCHEDULE FOR THE ENTERPRISES ADJUSTED INTERIM BUILDS
E. N. Hobotov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

A107
THE CHOICE OF METHODS OF OPTIMIZATION FOR DEVELOPMENT OF TRANSPORT NETWORK IN MULTI-CORE COMPUTING ENVIRONMENTS
A. A. Styagov, G. L. Epshteyn (Moscow Institute of Transport Engineers, Moscow, Russia)

B107
PARALLEL DATA PROCESSING ALGORITHM FOR COORDINATE TRANSFORMATION TASKS AND MATRIX MULTIPLICATION
M. A. Lisenkov, A. A. Vnukov (Moscow Institute of Electronics and Mathematics of National Research University Higher School of Economics, Moscow, Russia)

F107
TREND-SETTING HIGH-PERFORMANCE RECONFIGURABLE COMPUTER SYSTEMS BASED ON VIRTEX-6 AND VIRTEX-7 FPGAs
I. A. Kaliaev, I. I. Levin (SFedU Acad. Kalyaev Scientific Research Institute of Multiprocessor Computer Systems, Taganrog, Russia), A. I. Dordopulo, E. A. Semernikov (Southern Scientific Center of RAS, Rostov-on-Don, Russia)

A108
METHOD OF STEEPEST DESCENT FOR HOLOGRAPHIC IMAGE OPTIMIZATION
V. V. Chernik (A. J. Ishlinskiy Institute for Problems in Mechanics of RAS, Moscow, Russia)

B108
MULTIPLE ACCESS TO COMMON CHANNEL OF LONG-RANGE NETWORKS
V. S. Podlazov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

F108
COMPARISON OF OLD AND NEW CRYPTOGRAPHIC HASH FUNCTION NATIONAL STANDARDS OF RUSSIAN FEDERATION ON CPUS AND NVIDIA GPUS
P. A. Lebedev (Moscow Institute of Electronics and Mathematics of National Research University Higher School of Economics, Moscow, Russia)

A109

**PARALLEL ALGORITHMS LINEAR-QUADRATIC
STABILIZATION OF TIME DELAY SYSTEMS**

A. V. Kim (Institute of Mathematics and Mechanics, Ural Branch of RAS, Ekaterinburg, Russia), V. M. Kormyshev, M. A. Safronov (Ural Federal University, Ekaterinburg, Russia)

B109

**POLYNOMIAL ALGORITHM FOR ITERATION
INITIALIZATION INTERVAL CALCULATION**

R. B. Steinberg (Southern Federal University, Rostov-on-Don, Russia)

F109

**DEVELOPMENT OF HIGH PERFORMANCE COMPUTING
INFRASTRUCTURE FOR RESEARCH IN MOLDOVA**

G. V. Secieru, P. P. Bogatencov (Institute of Mathematics and Computer Science of ASM, Chisinau, Moldova), B. P. Rybakin (Lomonosov Moscow State University, Moscow, Russia), N. P. Iliuha (Research and Educational Networking Association of Moldova - RENAM, Chisinau, Moldova)

A110

**PARALLEL COMPUTING OF SIGNAL SEPARATION
MULTICHANNEL DYNAMIC SYSTEMS**

V. A. Zasov (Samara State University of Transport, Samara, Russia), M. V. Romkin (Kuibyshev Railway, Samara, Russia)

B110

LIVENESS OF MULTICELLULAR PROCESSOR

B. A. Zyryanov, N. V. Streltsov (MultiClet Corp., Ekaterinburg, Russia)

F110

**MODELING OF RESOURCE ALLOCATION AND DYNAMIC
LOAD BALANCING IN THE INFORMATION SYSTEM
OF REMOTE SUPPORT EDUCATIONAL PROCESS**

I. P. Bolodurina, D. I. Parfenov (Orenburg State University, Orenburg, Russia)

A111

**GAME PROBLEM OF PROSECUTION IN SYSTEMS
OPERATED WITH THE DISTRIBUTED PARAMETERS
OF THE HIGH ORDER**

M. Sh. Mamatov (National University of Uzbekistan of Mirzo Ulugbek's Name, Tashkent, Uzbekistan), H. N. Alimov (Dzhizak Polytechnical Institute, Dzhizak, Uzbekistan)

Thursday, October 25
10:00

PLENARY SESSION.2
Small Conference Hall

NON-UNIFORM COVERAGE METHOD FOR SOLVING MULTICRITERIA OPTIMIZATION PROBLEMS WITH QUARANTEED ACCURACY

P201

Yu. G. Evtushenko
Dorodnicyn Computing Centre of RAS, Moscow, Russia
M. A. Posypkin
Institute of Systems Analysis of RAS, Moscow, Russia

COMMUNICATION FABRIC MVS-EXPRESS

P202

V. K. Levin
R&D Institute Kvant, Moscow, Russia
B. N. Chetverushkin
Keldysh Institute of Applied Mathematics of RAS, Moscow, Russia
G. S. Elizarov, V. S. Gorbunov
R&D Institute Kvant, Moscow, Russia
A. O. Lacin
Keldysh Institute of Applied Mathematics of RAS, Moscow, Russia
V. V. Korneev, A. A. Sokolov, D. V. Andryushin
R&D Institute Kvant, Moscow, Russia
J. A. Klimov
Keldysh Institute of Applied Mathematics of RAS, Moscow, Russia

PARALLEL COMPUTATIONS AND REPRESENTATION OF ACTIVE KNOWLEDGE

P203

V. E. Malyshkin
Institute of Computational Mathematics and Mathematical Geophysics, South Branch of RAS, Novosibirsk, Russia

TECHNOLOGIES OF THE DISTRIBUTED STOCHASTIC SIMULATION ON SUPERCOMPUTERS

P204

M. A. Marchenko
Institute of Computational Mathematics and Mathematical Geophysics, South Branch of RAS, Novosibirsk, Russia

Thursday, October 25
14:00

SECTION A.2 Small Conference Hall	SECTION C Auditorium 1	SECTION E Auditorium 2
PARALLEL METHODS AND ALGORITHMS OF SIMULATION, OPTIMIZATION AND CONTROL Co-Chairmen: Aleksandr G. Chentsov Otu Vaarmann	PROBLEM SOLVING IN DISTRIBUTED ENVIRONMENT Co-Chairmen: Sergey V. Znamenskij Natalia N. Bakhtadze	PROGRAMMING TECHNOLOGIES AND ORGANIZING OF PARALLEL COMPUTING Co-Chairmen: Viktor E. Malyshkin Vitaliy P. Kutepov
A201 THE LINEAR INEQUALITIES SET REPRESENTATION OF MINKOWSKI'S SUM FOR TWO POLYHEDRONS A. V. Panyukov (South Ural State University, Chelyabinsk, Russia)	C201 THE IMPLEMENTATION OF NATURAL PROCESS PARALLELISM BASED ON THE MODEL WITH THE COMBINED CONTROL AND DATA NETWORKS V. S. Vykhovanets, A. V. Yatsutko (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)	E201 LANGUAGE ON MULTICORE COMPUTER SYSTEMS V. P. Kutepov, P. N. Shamal (National Research University "Moscow Power Engineering Institute", Moscow, Russia)
A202 THE USING OF PARALLEL CALCULATIONS IN CONTROL PROBLEMS UNDER CONDITIONS OF AN UNCERTAINTY G. B. Digo, N. B. Digo (Institute for Automation and Control Processes, Far Eastern Division of RAS, Vladivostok, Russia)	C202 RETROSPECTIVE BASED DISTRIBUTED MEMORY FOR CHANGING COMPUTING ENVIRONMENT S. V. Znamenskij (Program System Institute of RAS, Pereslavl-Zalessky, Russia)	E202 IMPLEMENTATION OF THE MPI FOR DISTRIBUTED COMPUTATIONS ON THE AGGREGATION OF COMPUTING CLUSTERS IN THE NUMGRID PROJECT M. A. Gorodnichev (Institute of Computational Mathematics and Mathematical Geophysics, Novosibirsk, Russia)
A203 SOFTWARE ENGENDERING FOR ALGORITHM OF SOLVING A LINEAR EQUATION SET UNDER INTERVAL UNCERTAINTY A. V. Panyukov, V. A. Golodov (South Ural State University, Chelyabinsk, Russia)	C203 METHOD OF CENTRALIZED ACCOUNTING FOR OBJECTS IN DISTRIBUTED SYSTEMS DOCUMENT E. A. Kurako, V. E. Moskalkov, V. L. Orlov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)	E203 ANALYSIS OF THE DATA DEPENDENCIES IN DVOR B. Ya. Steinberg, S. A. Guda, R. I. Morilev, A. P. Baglij, I. S. Skiba (Southern Federal University, Rostov-on-Don, Russia)
A204 REVERSIBLE COMPUTING: AN OVERVIEW A. N. Nepeivoda (Program System Institute of RAS, Pereslavl-Zalessky, Russia)	C204 TRANSACTION-FREE DATABASES FOR DISTRIBUTED COMPUTATIONS A. P. Beltiukov (Udmurt State University, Izhevsk, Russia)	E204 APPLICATION OF PARALLEL COMPUTING WITH USING OF ORDERS BASED TRANSPARENT PARALLELIZING TECHNOLOGY FOR THE MODELING AND SIMULATION V. D. Pavlenko, PhD V. V. Burdejnyj, S. V. Pavlenko (Odessa National Polytechnic University, Odessa, Ukraine)

A205

FORMALIZED SYNTHESIS OF VARIANTS OF PARALLEL COMPUTATION ORGANIZATION FOR VECTOR-MATRIX OPERATIONS AND ALGORITHM CHOICE PROBLEM

O. V. Klimova (Institute of Engineering Science, Ekaterinburg, Russia)

C205

MULTI-AGENT APPROACH TO DEVELOPMENT OF SMART ENERGY SYSTEMS WITH AN ACTIVE AND ADAPTIVE GRID

N. N. Bakhtadze, I. B. Yadikan, E. M. Maximov, N. E. Maximova (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

E205

REGRESSION TESTING OF MICROPROCESSOR RTL MODELS

S. I. Arjashev, N. V. Nikolina, P. A. Chibisov (Scientific Research Institute for System Analysis of RAS, Moscow, Russia)

A206

PREDICTING SCALABILITY OF ALGORITHMS AND THEIR PARAMETERS USING MULTI-AGENT HPC SIMULATING

B. M. Glinskij, A. S. Rodionov, M. A. Marchenko, D. I. Podkoritov, D. V. Vins (Institute of Computational Mathematics and Mathematical Geophysics South Branch of RAS, Novosibirsk, Russia)

C206

APPLICATION OF CLOUD TECHNOLOGIES BY THE SIMULATION TESTS: GPSS CLOUD DRAFT

S. A. Vlasov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia), V. V. Devyatkov (Elina Computer LtD, Kazan, Russia)

E206

AN OBJECT-ORIENTED APPROACH TO SPECIFICATION OF A MODEL OF THE INTEGRATED CLUSTER SYSTEM

G. A. Oparin, A. G. Feoktistov, E. K. Vartanyan (Institute for System Dynamics and Control Theory of Siberian Branch of RAS, Irkutsk, Russia)

A207

FRACTAL DIMENSION WITH REFERENCE TO MODELING OF TOPOLOGICAL NETWORKS AND THE ANALYSIS OF TEMPORARY SERIES

I. M. Chkheidze, L. Sh. Tokadze, S. N. Okromchedlishvili (Georgian Technical University, Tbilisi, Georgia)

C207

ONE METHOD FOR MULTIAGENT ORGANIZATION OF CLOUD COMPUTING BASED ON THE NETWORK OF PRIVATE USERS

A. I. Kalyaev (SFedU Acad. Kalyaev Scientific Research Institute of Multiprocessor Computer Systems, Taganrog, Russia)

E207

C++ PROGRAMMING LANGUAGE EXTENSION FOR SPECIFICATION OF OBJECTS, INTERFACES OF CLASSES AND GEOMETRICAL DECOMPOSITION PRINCIPLES

D. I. Kharitonov (Institute for automation and control processes Far East Branch of RAS, Vladivostok, Russia)

A208

GEOMETRIC METHODS FOR CONSTRUCTING OF SINGULAR SOLUTIONS OF NONLINEAR DIFFERENTIAL EQUATIONS USING PARALLEL COMPUTING TECHNOLOGIES

A. V. Akmtetzyanov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia), A. G. Kushner (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia, Lomonosov Moscow State University, Moscow, Russia), V. V. Lychagin (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

C208

ON A PROBLEM ARISING IN IMPLEMENTATION OF DISTRIBUTED COMPUTING PROJECTS

D. F. Fedyanin (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

E208

VISUAL MODELING OF PARALLEL ALGORITHMS IN PROCESSORIENTED NOTATION TEMPLATE

S. V. Vostokin, V. G. Litvinov, D. D. Makagonova, A. R. Khairutdinov (Samara State Aerospace University, Samara, Russia)

A209

PARALLEL METHODS FOR SOLVING INVERSE PROBLEMS IN RESERVOIR ENGINEERING

A. V. Akhmetzyanov, A. M. Salnikov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

C209

DEVELOPMENT OF MODEL AND NET-CENTRIC CONTROL ALGORITHMS FOR OBJECTS GROUP LOCOMOTION USING CONFIGURATION OF QUASI-POWER FIELDS

A. Yu. Efremov, Yu. S. Zatuliveter, Yu. S. Legovich (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

E209

DEVELOPMENT OF THE MIDDLEWARE FOR COMPLEX TECHNICAL SYSTEM CONTROL

S. S. Valeev, V. A. Maslennikov, A. S. Kovtunenkov (Ufa State Aviation Technical University, Ufa, Russia)

A210

**THE PARALLEL REALIZATION SOLVING THE INVERSE
BOUNDARY VALUE PROBLEM FOR THE DYNAMICAL LAME
SYSTEM**

A. N. Danilin (I. Kant Baltic Federal University, Kaliningrad, Russia)

C210

**ENSURED APPROACH TO THE PROBLEM OF APRIORI
CONSTRUCTION OF ROUTES BYPASSING NONCONVEX
OBSTACLES**

S. V. Kruglikov (Institute of Mathematics and Mechanics Ural branch of RAS, Yekaterinburg, Russia)

E210

PROCESS CONTROL IN COMPUTER SYSTEMS

V. P. Kutepov, N. A. Pankov (Moscow Power Engineering Institute, Moscow, Russia)

A211

SIMULATION OF THE FORMATION OF GALAXIES

M. M. Gadzhiev (Lomonosov Moscow State University, Moscow, Russia)

C211

**FORMATION CONTROL VIA QUASI-TIME OPTIONAL
PROTOCOL**

Yu. V. Morozov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

E211

**COMPARISON OF DIFFERENT OPERATION APPLICATION
STRATEGIES IN SIMULATED ANNEALING ALGORITHM
FOR SCHEDULING ON MULTIPROCESSORS**

D. A. Zorin (Lomonosov Moscow State University, Moscow, Russia)

E212

**AN ALGORITHM FOR SELECTING NODE ORDER
IN THE NETWORK WITH ARBITRATED LOOP TOPOLOGY**

I. A. Bychkov (Lomonosov Moscow State University, Moscow, Russia)

E213

**METASHEDULING STRATEGIES IN DISTRIBUTED
COMPUTATIONAL ENVIRONMENTS WITH NON-
DEDICATED RESOURCES**

V. V. Toporkov, A. V. Bobchenkov, D. M. Yemelyanov (Moscow Power Engineering Institute, Moscow, Russia), V. V. Korenkov (Joint Institute for Nuclear Research, Dubna, Russia), A. S. Tselishchev, P. A. Potekhin (European Organization for Nuclear Research, CERN, Geneva, Switzerland)

E214

**USING SIMULATOR FOR RESEARCH OF JOB SCHEDULING
ALGORITHMS FOR GRID SYSTEM**

P. N. Polezhaev (Orenburg State University, Orenburg, Russia)

E215

**POLYNOMIAL ALGORITHMS FOR SCHEDULING BASED
ON QUADRATIC TYPIFICATION OF TASK QUEUES**

A. E. Saak (Southern Federal University, Rostov-on-Don, Russia)

Friday, October 26
10:00

PLENARY SESSION.3
Small Conference Hall

DEVELOPMENT OF COMPUTATIONAL AEROACOUSTICS METHODS IN TSAGI V. F. Kopiev, S. L. Chernyshev Central Aerohydrodynamic Institute named after N. E. Zhukovsky (TsAGI), Zhukovsky, Russia	P301
TELECOMMUNICATIONS AND INFORMATION RESOURCES OF SIBERIAN BRANCH OF RAS Yu. I. Shokin Institute of Computational Technologies, Siberian Branch of RAS, Novosibirsk, Russia	P302
ZFS AS A SOLUTION FOR HPC PROBLEMS IN THE AGE OF LARGE-SCALE DATA V. A. Grechyushkin Oracle, Moscow, Russia	P303
MATLAB PARALLEL COMPUTING D. V. Zhegalkin Softline - MathWorks, Moscow, Russia	P304
HIGH PERFORMANCE COMPUTING ON GPU_s A. R. Dzhorayev NVIDIA, Moscow, Russia	P305

Friday, October 26
14:00

SECTION D Small Conference Hall	SECTION B.2 Auditorium 1	SECTION F.2 Auditorium 2
RELIABILITY OF PARALLEL COMPUTING Co-Chairmen: Victor S. Podlazov Gennady G. Stetsjura	ARCHITECTURE OF PARALLEL AND DISTRIBUTED SYSTEMS Co-Chairmen: Sergey A. Stepanenko Yuriy S. Zatuliveter	PARALLEL COMPUTING IN APPLICATIONS Co-Chairmen: Sergey N. Andrianov Boris Ya. Steinberg
D301 RESERVATION IN THE PARALLEL COMPUTING SYSTEMS WHICH ARE CARRYING OUT COMPLEXES OF INTERCONNECTED WORKS N. N. Ivanov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)	B301 MODEL-ALGORITHMIC PROVISION OF INTEGRATED PLANNING OF MODERNIZATION AND OPERATION OF CORPORATE INFORMATION SYSTEM E. A. E. Dilou-Raginya, S. A. Potryasaev, B. V. Sokolov (Saint Petersburg Institute for Informatics and Automation of RAS, St. Petersburg, Russia)	F301 PARALLEL SIMULATION OF AIRLINER FLIGHT TRAJECTORIES USING ON-BOARD MODEL OF AIRLINER TO EVALUATE CAPABILITY OF TRAJECTORIES AND FLIGHT SAFETY B. S. Aleshin, S. G. Bazhenov (Central Aerohydrodynamic Institute named after N. E. Zhukovsky (TsAGI), Zhukovsky, Russia), V. G. Lebedev, E. L. Kulida (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)
D302 SELFHEALING OF COMPLEX SYSTEMS IN CONTROLLED EXECUTION PARADIGM V. A. Galatenko, K. A. Kostyukhin (Institute for Systems Analysis of RAS, Moscow, Russia)	B302 TASKS OF UPDATING PROCESS CONTROL OF MULTICOMPONENT SYSTEMS IN REMOTE PARTS OF ORGANIZATION V. L. Orlov, E. A. Kurako (V. A. Trapeznikov Institute of Con- trol Sciences of RAS, Moscow, Russia)	F302 PARAMETER IDENTIFICATION OF SEA WAVES IN THE ONBOARD IS OF PARALLEL ARCHITECTURE I. V. Busko, A. B. Degtyarev (Saint Petersburg State University, Saint Petersburg, Russia)
D303 CELLULAR ALGORITHMS OF RECONFIGURATION AND ROUTING BASED ON THE NATURAL SIMILAR ENVIRONMENT V. A. Koloskov, D. V. Pavlyuchenko, Din Tuan Long ("MATI" – Russian State Technological University, Moscow, Russia)	B303 MODEL OF THE OFF-LINE CONTROL THE DEVELOPING MULTIPROCESSING ENVIRONMENT V. B. Gusev (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)	F303 PROBLEMS OF CALCULATION CONTROL OF OBJECTS IN REAL TIME DEMANDING PARALLEL CALCULATIONS A. B. Shubin, E. G. Aleksandrov, G. G. Harchenkov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

<p style="text-align: right;">D304</p> <p>ARCHITECTURE OF FAILURE-SAFE DISTRIBUTED CONTROL ENVIRONMENT FOR LARGE TECHNOLOGICAL OBJECTS R. V. Nestulya, O. V. Serdyukov, A. N. Skvortsov (Institute of Automation and Elektrometry, Siberian Branch of RAS, Novosibirsk, Russia)</p>	<p style="text-align: right;">B304</p> <p>SAMPLE OF CAMERA-READY MANUSCRIPT PREPARATION FOR THE CONFERENCE E. S. Kudryashova (Komsomolsk-on-Amur State Technical University, Komsomolsk-on-Amur, Russia)</p>	<p style="text-align: right;">F304</p> <p>A VIRTUAL LABORATORY FOR TESTING RST PRODUCTS WITH THE USE OF PARALLEL COMPUTING SYSTEMS A. A. Belkin (Khrunichev State Research and Production Space Center, Moscow, Russia), A. V. Kireev (Hewlett-Packard EMEA, Moscow, Russia)</p>
<p style="text-align: right;">D305</p> <p>PARALLEL COMPUTING IN THE TASK OF ACCEPTABLE REGION CONSTRUCTION D. A. Nazarov (Institute of Automation and Control Processes, Far Eastern Branch of RAS, Vladivostok, Russia)</p>	<p style="text-align: right;">B305</p> <p>AUTOMATA MODEL FOR CONTROL OF PARALLEL AND DISTRIBUTED PROCESSES OF LARGE DIMENSION Yu. S. Zatuliveter (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)</p>	<p style="text-align: right;">F305</p> <p>BRANCH-AND-BOUND ALGORITHM FOR COMBINED SCHEDULING OF COMPUTATIONS AND DATA EXCHANGES IN REAL-TIME SYSTEMS P. E. Shestov (Lomonosov Moscow State University, Moscow, Russia)</p>
<p style="text-align: right;">D306</p> <p>THE ORGANIZATION OF ERRORS DIAGNOSIS FOR ONE OF MULTIVERSION REDUNDANCY VARIANTS OF INTERDEPENDENT PROGRAM MODULES IN PARALLEL CONTROL COMPUTING SYSTEMS N. A. Isaeva, M. L. Milkov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)</p>	<p style="text-align: right;">B306</p> <p>QUANTUM PARALLELISM AND QUANTUM D-ALGORITHM P. A. Pravil'schikov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)</p>	<p style="text-align: right;">F306</p> <p>METHOD OF THE DIAGNOSTICS OF TECHNOLOGICAL PROCESS IN REAL TIME V. B. Gusev (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)</p>
<p style="text-align: right;">D307</p> <p>ON AN APPROACH TO DETERMINE "CRITICAL" TASKS OF SETS OF PROGRAM MODULES WITH THEIR ASYNCHRONOUS LAUNCHING FOR STATIC FORECASTING OF THEIR RELIABILITY REALIZATION IN THE PARALLEL COMPUTING SYSTEMS I. Y. Podshivalova (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)</p>	<p style="text-align: right;">B307</p> <p>THE METRIC, CYCLOMATIC AND SYNTHESIS OF TOPOLOGY OF SYSTEMS AND NETWORKS V. A. Melent'ev (Rzhanov Institute of Semiconductor Physics, Siberian Branch of RAS, Novosibirsk, Russia)</p>	<p style="text-align: right;">F307</p> <p>PARALLEL CALCULATIONS APPLICATION IN THE HELICOPTER LANDING ZONE PARAMETERS REMOTE ANALYSIS OPTOELECTRONIC SYSTEM A. D. Barabanov, A. A. Makarenko, L. S. Tournetsky ("Radar mms" JSC, Saint-Petersburg, Russia)</p>
<p style="text-align: right;">D308</p> <p>METHOD OF FAILURES ELIMINATION IN OPTICAL DATA EXCHANGE MEANS G. G. Stetsjura (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)</p>	<p style="text-align: right;">B308</p> <p>PROBLEMS OF ALGORITHMIZATION IN PARALLEL COMPUTING PROCESSES V. I. Bodyakin (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)</p>	<p style="text-align: right;">F308</p> <p>THE CLIENT-SERVER APPROACH FOR DESCRIBING TO DISTRIBUTED AUTOMATIZED BUSINESS SYSTEMS ON EXAMPLES THE POSTAL ON-LINE FRANKING SYSTEMS AND REMOTE CREDIT FOR FRANKING SYSTEMS A. Yu. Zalozhnev, L. L. Zalozhneva, L. N. Kryukova (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia), E. L. Shuremov (Financial University under the Government of the Russian Federation, Moscow, Russia)</p>

D309

**METHOD OF ACCESS CONFLICTS ELIMINATION
FOR SYSTEMS WITH OPTICAL DATA EXCHANGE MEANS**

G. G. Stetsjura (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

B309

**CONCEPT OF THE DEVELOPMENT LARGE-SCALE
INFORMATIONCONTROLLING SYSTEMS ON BASE
OF THE NEUROSEMANTIC STRUCTURES**

V. I. Bodyakin, V. A. Gruzman (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

F309

**SCALABLE PARALLEL GENETIC ALGORITHMS
FOR OPTIMIZATION OF FINANCIAL STRATEGIES
ON HYBRID CLUSTER WITH GPU**

O. G. Monakhov (Institute of Computational Mathematics and Mathematical Geophysics, Siberian Branch of RAS, Novosibirsk, Russia)

D310

**PARALLELISM IN NP-COMPLETE PROBLEMS
SUCH AS SATISFIABILITY PROBLEM**

S. I. Uvarov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

B310

**NEIGHBOURHOOD'S SOME FEATURES MODELLING
OF DISCRETE SYSTEMS**

A. M. Shmyrin, I. A. Sedykh (Lipetsk State Technical University, Lipetsk, Russia)

F310

**PARALLEL CALCULATIONS FOR SOLVING SOCIAL
MANAGEMENT PROBLEMS**

S. V. Zernov (V. A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia)

D311

**DISTRIBUTED DYNAMYC HONEYNER BASED
ON HIDDEN MARKOV MODEL**

I. S. Maksin, V. A. Malishev (Shuya State Pedagogical University, Shuya, Russia)

B311

**ON EFFICIENSY OF CONSTRUCTING HAMILTON CYCLES
IN GRAPHS OF DISTRIBUTED COMPUTER SYSTEMS
BY RECURRENT NEURAL NETWORKS**

M. S. Tarkov (Rzhanov Institute of Semiconductor Physics, Siberian Branch of RAS, Novosibirsk, Russia)

F311

**SCENARIOS SYSTEM MODELING OF REGIONAL ECONOMIC
PROCESSES DYNAMIC ON THE BASE OF THE INTELLIGENT
DATA ANALYSIS TECHNOLOGY**

V. A. Gelovani, V. B. Britkov, A. V. Boulytchev (Institute for Systems Analysis RAS, Moscow, Russia)

F312

**PARALLEL CALCULATION OF THE PRODUCT
INTERTEMPORAL GENERAL EQUILIBRIUM MODEL
OF RUSSIAN ECONOMY**

V. P. Vrzheschch (Lomonosov Moscow State University, Moscow, Russia), I. G. Pospelov (Computational Center of RAS, Moscow, Russia)