



16th Saint Petersburg International Conference
on Integrated Navigation Systems
25 – 27 May 2009, Russia

30, Malaya Posadskaya St., St. Petersburg, 197046, Russia. Tel. 7 (812) 499 81 18, 499 81 57 Fax 7 (812) 232 33 76
E-mail: ICINS@eprib.ru, elprib-onti@telros.net <http://www.elektropribor.spb.ru/cnf/icins09/enfrset.html>

PRELIMINARY PROGRAM *

MONDAY, 25 MAY

8.00 – 9.50 REGISTRATION OF CONFERENCE PARTICIPANTS

10.00 – 10.15 **OPENING CEREMONY**

SESSION I – INERTIAL SYSTEMS AND SENSORS

PLENARY PAPERS

- 10.15 – 10.35 1. **I.K. Meshkovsky, V.Ye. Strigalyov, G.B. Deineka** (*Saint Petersburg State University of Information Technologies, Mechanics and Optics (SPb SU ITMO), Saint Petersburg, Russia*), **V.G. Peshekhonov, L.P. Nesyuk** (*FSUE CSRI Elektropribor, Saint Petersburg, Russia*)
ID 4911
A Three-Axis Gyroscope for Marine Navigation Systems
- 10.35 – 10.55 2. **A.P. Kolevatov, S.G. Nikolaev** (*Perm State Technical University, Perm, Russia*), **A.G. Andreev, V.S. Ermakov, V.K. Struk, A.S. Parfenov, I.I. Nesterov** (*Perm Scientific-Industrial Instrument Making Company, Perm, Russia*)
ID 5631
Advances in Development of Strapdown Inertial Navigation Systems on Fiber-Optic Gyroscopes
- 10.55 – 11.15 3. **Yu.N. Korkishko, V.A. Fedorov, A.P. Patrikeev** (*RPC OPTOLINK Ltd, Zelenograd, Moscow region, Russia*), **A.V. Chernodarov, V.A. Matyushin** (*Zhukovsky Air Force Engineering Academy, Moscow, Russia*), **S.E. Perelyaev** (*Moscow Institute of Electromechanics and Automatics, Moscow, Russia*)
ID 5241
An Object-Oriented Technology for the Integration of Navigation Sensors and Its Implementation in the SINS-1000 Strapdown Inertial System Built around Fiber-Optic Gyros
- 11.15 – 11.45 COFFEE BREAK

PLENARY PAPERS

- 11.45 – 12.05 4. **A.V. Chumakov, V.S. Fuzeev, V.A. Chirkov, A.E. Fedorov** (*Open Society Ramensky Instrument Engineering Plant, Ramenskoye, Moscow region, Russia*)
ID 5551
Achievement of a Navigating Class of Accuracy of the Three-Axial Laser Gyro in a Full-Scale Serial Production

* The Conference Program Committee reserves the right to make alterations to the final Conference Program.

- 12.05 – 12.25 5. **Yu.Yu. Broslavets, M.A. Georgieva, A.A. Fomitchev**
ID 5421 (*Moscow Institute of Physics and Technology (State University), JSC Lasex, Dolgoprudny, Moscow region, Russia*)
Nonreciprocal Effects In A Ring YAG:Cr⁴⁺ Laser. Features of Rotation Sensing in Self-Modulation and Beat Note Regimes

POSTER PAPERS*

- 12.25 – 13.00 6. **A.E. Fedorov, D.A. Rekunov** (*Open Society Ramensky Instrument Engineering Plant, Ramenskoye, Moscow region, Russia*)
ID 5561 Compensation of Instrumental Errors of the Solid-Frame Three-Axial Dithered Laser Gyro
- ID 5661 7. **S. Z. Jamal** (*Institute of Space Technology, Karachi, Pakistan*)
Inertial Sensors Data Simulator
- ID 5221 8. **D.M. Kalihman, L.Ya. Kalihman, Yu.V. Sadomtsev, A.V. Polushkin, E.A. Deputatova, R.V. Ermakov, S.F. Nahov** (*PC KORPUS, a branch of FSUE Scientific Production Center of Automatics and Instrument – building named after academician N.A. Pilyugin, Saratov, Russia*)
Precision Width-Band Test Simulator Comprising Inertial Sensors and a Digital Control System
- ID 5211 9. **D.M. Kalihman, L.Ya. Kalihman, Yu.V. Sadomtsev, A.V. Polushkin, E.A. Deputatova, R.V. Ermakov, S.F. Nahov** (*PC KORPUS, a branch of FSUE Scientific Production Center of Automatics and Instrument – building named after academician N.A.Pilyugin, Saratov, Russia*)
The Technique for Arranging Digital Controllers on the Basis of Modern Microprocessors for Feedback Gyros and Feedback Linear Accelerometers
- ID 5521 10. **Khalid Ishaq** (*Institute of Space Technology, Pakistan*)
North Alignment of Gyro Calibration System
- ID 5491 11. **M.B. Bogdanov, A.V. Prohortsov, V.V. Saveliev, A.A. Tchepurin** (*Tula State University, Tula, Russia*)
Method for Accuracy Increasing of Strapdown Attitude Control System of Mobile Object with Short Flight Time
- ID 5151 12. **Yu.N. Korkishko, V.A. Fedorov, V.E. Prilutsky** (*LPC Optolink Ltd, Moscow, Zelenograd, Moscow region, Russia*), **P.K. Plotnikov, A.V. Mikheyev, S.G. Naumov** (*Saratov State Technical University, Saratov, Russia*)
Study of SINS Work in the Conditions of the High Latitudes Taking into Account the Real Sensors Errors
- ID 5281 13. **V.M. Nikiforov** (*Academician Pilyugin Center, Moscow, Russia*)
Stability of Complex Dynamic Systems Terminal Movement Control at Nonstandard Effect

* *The authors of poster papers present 1-2 slides within 3 minutes at the plenary session; the discussion will be continued at the posters.*

- ID 4821 14. **V.E. Dzhashitov, V.M. Pankratov, A.V. Golikov** (*Precision Mechanics and Control Institute, Russian Academy of Sciences, Saratov, **Russia***)
Theory of Gyroscopes and Theoretical Mechanics - Computer Lectures
- ID 5021 15. **V.Ya. Raspopov, D.M. Malyutin, Yu.V. Ivanov** (*Tula State University, Tula, **Russia***)
Experience of Creation of Systems of Stabilization and Management of a Line of Sight
- ID 5191 16. **N.I. Krobka** (*Branch of the Center for Ground-Based Space Infrastructure Facilities Operation Scientific & Research Institute for Applied Mechanics named after academician V.I. Kuznetsov, Moscow, **Russia***)
Non-Commutative Kinematic Effects and Fiber-Optic Gyros Noises Accumulation Laws in Strapdown Inertial Orientation Systems

13.00 – 14.00 LUNCH

PLENARY PAPERS

- 14.00 – 14.20 17. **Yu.G. Martynenko** (*Institute of Mechanics of Lomonosov Moscow State University, **Russia***), **I.V. Merkurjev, V.V Podalkov** (*Moscow Power Engineering Institute (Technical University), **Russia***)
ID 5321
Dynamics of a Ring Micromechanical Gyroscope in a Mode of the Compelled Fluctuations
- 14.20 – 14.40 18. **H. Myung, H. Bang** (*Korea Advanced Institute of Science and Technology (KAIST), Daejeon, **Republic of Korea***)
ID 5311
Nonlinear Control of Vibratory Gyros as an Angle Measurement Sensor
- 14.40 – 15.00 19. **V.V. Chikovani, Yu.A. Yatsenko, I.T. Mikolishin** (*INNALABS Holding Inc., Kiev, **Ukraine***)
ID 5381
Shock and Vibration Sensitivity Test Results for Metallic Resonator CVG

POSTER PAPERS*

- 15.00 – 15.30 20. **O.L. Mumin, M.V. Drozdov, L.P. Ryabova, V.G. Rozentzvein, V.V. Svyatiy, V.V. Sumarokov, A.N. Fedorovich** (*Federal State Unitary Enterprise Central Scientific and Research Institute (CSRI) Elektropribor, Saint Petersburg, **Russia***)
ID 4841
A Small-Sized Three-Axis Accelerometer of Higher Reliability with Digital Output
- ID 4831 21. **V.E. Dzhashitov, V.M. Pankratov, M.A. Barulina** (*Precision Mechanics and Control Institute, Russian Academy of Sciences, Saratov, **Russia***)
Micromechanical Accelerometer with Reversible Thermal Control System in Conditions of Temperature Disturbances
- ID 5271 22. **V.B. Nikishin, A.V. Melnikov, V.S. Shorin**
(*JSC Gazpriboravtomaticheskaya service, JSC Geophismash, Saratov State Technical University, Saratov, **Russia***)
Estimated and Compensation Errors of Wide Ranged Gyroinclinometer

* *The authors of poster papers present 1-2 slides within 3 minutes at the plenary session; the discussion will be continued at the posters.*

- ID 5391 23. **M.A. Basarab, V.A. Matveev, M.A. Ivoilov** (*Bauman Moscow State Technical University, Moscow, **Russia***)
Genetic Algorithms For Balancing The Solid-State Wave Gyro
- ID 5401 24. **E. Edwan, S. Knedlik, M. Zhang, O. Loffeld** (*Center for Sensor systems (ZESS), University of Siegen, Siegen, **Germany***)
Investigation of Dynamic Models for Angular Motion Estimation in Gyro-Free IMU
- ID 5181 25. **Yu.G. Egorov, S.V. Smirnov** (*Bauman Moscow State Technical University, Moscow, **Russia***)
Information Processing in the Adaptive Correction System of the Radio Telescope Inertial Orientation System
- ID 5301 26. **Ye.I. Somov** (*Samara Scientific Center, Russian Academy of Sciences, Samara, **Russia***)
Multiply Algorithms of Filtering, Integration and Calibration for a Spacecraft Attitude Determination Strapdown Inertial System
- ID 6841 27. **V.S. Lobanov, N.V. Tarasenko, D.N. Shulga, V.N. Zboroshenko, A.E. Borisov** (*FSUE Central Scientific Research Institute of Machine Building (TsNIIImash), Korolyov, Moscow region, **Russia***)
The Table Simulator of the Automatic Rotary Platform Controlled Motion
- ID 6871 28. **Victor Fedosov** (*Aeronautical Research and Test Institute, Prague, **Czech Republic***), **Ladislav Sehnal, Libuse Pospisilova** (*Astronomical Institute, **Czech Republic***)
Space Project Teaser

15.30 – 16.00 COFFEE BREAK

PLENARY PAPERS

- 16.00 – 16.20 29. **Michael Shatalov** (*Sensor Science and Technology (SST) of CSIR Material Science and Manufacturing (MSM), Tshwane University of Technology, **Republic of South Africa***), **Charlotta Coetzee** (*Tshwane University of Technology, **Republic of South Africa***)
ID 4961
Control of Hemispherical Resonator Gyroscope by Means of Sectioned Parametric Electrodes
- 16.20 – 16.40 30. **E.A. Chumankin, A.Yu. Mishin** (*JSC Arzamas Research&Production Enterprise TEMP-AVIA a subsidiary of JSC Tactical Missiles Corporation, Arzamas Nizhniy Novgorod region, **Russia***)
ID 5061
The Investigation of Attitude Determination Sensors Performance for Evaluation of their Possible use in Inertial Guidance Systems for Operational/Tactical Uninhabited Air Vehicles

17.00 – 21.00 SIGHT-SEEING GUIDED BUS TOUR OF SAINT PETERSBURG

TUESDAY, 26 MAY

SESSION I – INERTIAL SYSTEMS AND SENSORS

(Continued)

PLENARY PAPERS

- 9.00 – 9.20 31. **A.A. Volyntsev, B.A. Kazakov, N.A. Tideman, I.E. Shustov** (*Kuznetsov Research Institute of Applied Mechanics Affiliated branch of Center for Ground-Based Space Facilities Operation, Moscow, **Russia***)
ID 5701 Increase of Accuracy and Range of Measurement for Precision Gyro Measurers of Angular Velocity Vector Built on Floating Gyroscopic Sensitive Elements
- 9.20 – 9.40 32. **G. Dekoulis** (*Department of Computer Science and Engineering, Frederick Research Centre, Frederick University, Nicosia, **Cyprus***)
ID 5441 Smart Sensor Optimised for Aerospace Navigation Applications
- 9.40 – 10.00 33. **N.I. Krobka** (*Branch of the Center for Ground-Based Space Infrastructure Facilities Operation Scientific & Research Institute for Applied Mechanics named after academician V.I. Kuznetsov, Moscow, **Russia***)
ID 5201 Quantum Micro-Mechanics: Gyros Based on de Broglie Waves and Quantum Features of Super Fluid Liquids. State of the Arts and Development Tendencies

SESSION II – INTEGRATED SYSTEMS

PLENARY PAPERS

- 10.00 – 10.20 34. **J. Seibold, O.Meister, N.Frietsch, G.F.Trommer** (*Institute of Systems Optimization, University of Karlsruhe, Karlsruhe, **Germany***)
ID 5351 Capabilities of Teaming for Micro Aerial Vehicles
- 10.20 – 10.40 35. **A. Baudkoobeh, M. Farrokhi** (*Iran University of Science & Technology, Tehran, **Iran***)
ID 5341 Modeling and Control of Unmanned Aerial Vehicles Using Multi-Objective Output-Feedback Method

POSTER PAPERS*

- 10.40 – 11.00 36. **V.Ya. Raspopov, R.V. Alaluyev, S.V. Telukhin, D.M. Malyutin** (*Tula State University **Russia***), **P.P. Paramonov, Yu.I.Sabo** (*EDO Electroavtomatika named after P.A. Efimov, **Russia***)
ID 5011 Designing of Small-Sized Unmanned Aircraft Vehicle's Automatic Control System
- ID 5371 37. **A. Baudkoobeh, M. Moghadam, M. Farrokhi** (*Iran University of Science and Technology, Tehran, **Iran***)
Robust and Intelligent Path Planning Algorithm for Unmanned Aerial Vehicles in TF/TA Flight

* *The authors of poster papers present 1-2 slides within 3 minutes at the plenary session; the discussion will be continued at the posters.*

- ID 5331 38. **A.A. Fomichev, V.B. Uspensky, P.V. Larionov, K.Yu. Schastlyvets** (*JSC Lasex, Dolgoprudny, Moscow region, Russia*)
The Efficiency Analysis of the Position, Velocity and Hybrid Correction in the Integrated Navigating System at Incomplete Satellite Constellation
- ID 4981 39. **V.I. Kortunov, G.A. Proskura, A.S. Kravchuk** (*National Aerospace University Kharkiv Aviation Institute, Kharkov, Ukraine*)
Accuracy Analysis of Integrated SINS with Optical Sensor
- ID 5621 40. **K.K. Veremeenko, D.A. Antonov, V.M. Zharkov, R.Yu. Zimin** (*Moscow Aviation Institute (State Technical University), Moscow, Russia*)
Unmanned Aerial Vehicle Integrated Navigation & Landing Complex Using Pseudolites Signals
- ID 5531 41. **N.M. Polenov** (*Branch of Open Joint-Stock Company VNIIRA VNIIRA-Navigator, Saint Petersburg, Russia*), **A.I. Panferov, V. K. Ponomarev** (*State University of Aerospace Instrumentation, Saint Petersburg, Russia*)
Adaptive Algorithms of a Complex Information Processing on the Basis of Spectral Analysis of Updated Sequences in a Navigating Complex of Aircraft

11.00 – 11.30 COFFEE BREAK

PLENARY PAPERS

- 11.30 – 11.50 42. **B.A. Blazhnov, G.I. Yemeliantsev, D.A. Koshaev, I.V. Semenov, A.P. Stepanov** (*Federal State Unitary Enterprise Central Scientific and Research Institute (CSRI) Elektropribor, Saint Petersburg, Russia*),
ID 5361 **V.M. Zhilinsky, A.N. Korotkov, Ye.A. Timofeev, G.S. Tsekhanovich** (*The Russian Institute of Radionavigation and Time JSC., Saint Petersburg, Russia*)
Integrated Inertial-Satellite Attitude and Navigation System with Tightly Coupled Architecture
- 11.50 – 12.10 43. **Junchuan Zhou, Stefan Knedlik, Ezzaldeen Edwan, Otmar Loffeld** (*Center for Sensorsystems (ZESS), University of Siegen, Siegen, Germany*)
ID 5481 Improved Extended Kalman Filter-Based Tightly-Coupled Low-Cost MEMS-IMU/GPS Integrated Navigation System with Efficient Computational Method
- 12.10 – 12.30 44. **V.B. Nikishin, A.I. Sinev** (*JSC Gazpriboravtomatikaservis, Russia*),
ID 5051 **P.K. Plotnikov** (*Saratov State Technical University, Russia*)
Comparative Analysis of the Instruments, the Algorithms and the Precision Parameters of the Trace Positioning and the Buried Pipeline Defects Positioning by Applying SINS and GPS

POSTER PAPERS*

- 12.30 – 13.00 45. **M.B. Bogdanov, A.V. Prohortsov, V.V. Saveliev, V.A. Smirnov, A.A. Tchepurin** (*Tula State University, Tula, Russia*)
ID 5501 Experimental Investigation of INS Retrieving Information from Restricted Number of Navigation Satellites

* *The authors of poster papers present 1-2 slides within 3 minutes at the plenary session; the discussion will be continued at the posters.*

- ID 4851 46. **A.A. Golovan, A.I. Matasov** (*Lomonosov Moscow State University, Moscow, Russia*)
The Application of the Guaranteed Approach for Solving the Topographical Referencing Problem
- ID 4791 47. **A.V. Loparev, O.A. Stepanov, V.A. Tupysev** (*Federal State Unitary Enterprise Central Scientific and Research Institute (CSRI) Elektropribor, Saint Petersburg, Russia*)
Designing of Algorithms for Processing of Navigation Information with Guaranteed Estimation Quality
- ID 5081 48. **Qingzhe Wang, Mengyin Fu, Zhihong Deng, Shunting Wang** (*Department of Automatic Control, Beijing Institute of Technology, Beijing, P. R. China*)
A New Dynamic Calibration Algorithm for Odometer's Scale Factor
- ID 5681 49. **D.A. Bedin** (*Institute of Mathematics and Mechanics UrB RAS, Ekaterinburg, Russia*), **A.V. Belyakov, K.V. Strokov** (*NITA, Llc., Saint Petersburg, Russia*), **A.A. Fedotov** (*Institute of Mathematics and Mechanics UrB RAS, Ekaterinburg, Russia*)
Reconstruction of an Aircraft Trajectory on Basis of Inexact Measurements of Its Position
- ID 5761 50. **Chang-Hong Wang, Yi-Min Kou** (*Space Control and Inertial Technology Research Center, Harbin Institute of Technology, Harbin, China*)
Chance and Challenge of Using Magnetic Vector Decomposition in Geomagnetic Navigation
- ID 6501 51. **V.I. Syriamkin** (*Tomsk State University, Tomsk, Russia*), **G.S. Glushkov** (*Public Corporation Scientific Research Institution of Semiconductor Devices, Tomsk, Russia*), **V.S. Shidlovskiy, A.O. Gafurov** (*Tomsk State University, Tomsk, Russia*), **D.S. Zhdanov** (*Public Corporation Scientific Research Institution of Semiconductor Devices, Tomsk, Russia*), **I.N. Rozhnev** (*Tomsk Polytechnic University, Tomsk, Russia*), **L.S. Solomonov, L.P. Kamenskiy** (*Moscow Institute of Thermotechnics, Moscow, Russia*), **V.I. Yurchenko** (*Public Corporation Scientific Research Institution of Semiconductor Devices, Tomsk, Russia*)
Integrated Extreme Correlation Navigation Systems Algorithmic Model and Software
- ID 5471 52. **M.G. Moghadam** (*Tarbiat Modares University, Tehran, Iran*), **A. Badkoubeh** (*Iran University of Science & Technology, Tehran, Iran*), **F. Jamshidi, M.T. H. Behesti** (*Tarbiat Modares University, Tehran, Iran*)
Robust Control of an Active Suspension System Using H_2 & H_∞ Control Methods
- ID 5431 53. **S.A. Brodsky, A.V. Nebylov, A.I. Panferov** (*International Institute for Advanced Aerospace Technologies of State University of Aerospace Instrumentation, Saint Petersburg, Russia*)
LMI Optimization of Measuring System at Control Design for Flexible Aerospace Vehicles

- ID 4811 54. **I.N. Burdinskiy, A.S. Mironov** (*Institute of Marine Technology Problems, Vladivostok, Pacific National University, Khabarovsk, **Russia***),
A.V. Myagotin (*Institute of Marine Technology Problems, Vladivostok, Saint Petersburg State University of Civil Aviation, **Russia***)
A Multi-Channel Correlation Detector of Pseudo-Noise Hydroacoustic Signals

13.00 – 14.00 LUNCH

PLENARY PAPERS

- 14.00 – 14.20 55. **E.G. Kharin, V.A. Kopelovich, I.A. Kopylov, E.V. Klabukov, A.F. Yakushev, V.A. Yakushev** (*Flight Research Institute (FRI) named after M.M.Gromov, Zhukovsky, Moscow region, **Russia***)
ID 5001
Flight Tests Of Integrated Inertial Navigation Systems Using The Modern Information Technologies
- 14.20 – 14.40 56. **A. Azenha, A. Carvalho** (*Institute for Systems and Robotics, University of Porto, **Portugal***)
ID 4781
Radio Frequency Indoors Localization Using Trilateration
- 14.40 – 15.00 57. **B.V. Pavlov, A.K. Volkovitskiy, E.V. Karshakov** (*Institute of Control Sciences, Russian Academy of Sciences, Moscow, **Russia***)
ID 5141
Low Frequency Electromagnetic System of Relative Navigation and Orientation

POSTER PAPERS*

- 15.00 – 15.25 58. **S.I. Kumkov** (*Institute of Mathematics and Mechanics UrB RAS, Ekaterinburg, **Russia***), **S.G. Pyatko** (*GosNII Aeronavigatsiya, Moscow, **Russia***), **A.A. Fedotov** (*Institute of Mathematics and Mechanics UrB RAS, Ekaterinburg, **Russia***)
ID 5671
Procession of Corrupted AZN/GPS Information in System of Observation of Aircraft Motion
- ID 5101 59. **V.M. Terentiev, O.V. Mikhaylova** (*Industrial Automatics Design Bureau JSC, Saratov, **Russia***)
Research of the problem of Normal Scheme Direction Unmanned Aerial Vehicles (UAVs) on Mode of Aircraft-Type Landing
- ID 5251 60. **Maciej Gucoma, Lucjan Gucoma** (*Marine Traffic Engineering Institute, Szczecin, **Poland***)
Pilot Navigation System – Integrated Tool for Vessels Handling in Ports
- ID 5261 61. **N.A. Lookin** (*IES Urals Branch of RAS, Academician N.A.Semikhatov Federal State Unitary Enterprise Scientific and Production Association of Automatics, Ekaterinburg, **Russia***)
Functional-Oriented Processors for the Correlation-Extremal Navigation Systems: Design Methodology
- ID 5591 62. **A. Banachowicz** (*Polish Naval Academy, Gdynia, **Poland***), **A. Wolski, G. Banachowicz** (*Maritime University of Szczecin, Szczecin, **Poland***)
The Evolute of Ship's Plane Trajectory

* *The authors of poster papers present 1-2 slides within 3 minutes at the plenary session; the discussion will be continued at the posters.*

ID 5161 63. **E.I. Druzhynin, V.A. Voronov** (*Institute of System Dynamics and Control Theory SB RAS, Irkutsk, Russia*)
High Precision Unclosed-Loop Systems of Program Control of the Attitude Change Mode of the Orbiting Telescope

ID 5171 64. **V.V. Bartenev** (*Kursk State Technical University, Kursk, Russia*)
Application of Fusion Neutrosophic PID Controller to Control of Mobile Object Motion

15.25 – 15.55 COFFEE BREAK

PLENARY PAPERS

15.55 – 16.15 65. **A.S. Syrov, A.G. Brovkin, E.E. Semenov, V.V. Morozov, O.I. Fefoskin**
ID 5751 (*FSUE MOKB Mars, Moscow, Russia*)
The Analysis of Ways to Increase the Precision of Payload Insertion with the Use of BREEZE-M Upper Stage

16.15 – 16.35 66. **A.S. Galkina, A.I. Manturov, V.I. Rublev, V.E. Yurin**
ID 5041 (*SRP SRC TsSKB-Progress, Samara, Russia*)
Accuracy Analysis of Control Programs Creation and Implementation Concerning SC Angular Motion for Earth Remote Sensing Using Navigation Satellite System

16.35 – 16.55 67. **Yu.N. Gorelov, S.B. Danilov** (*Samara State University, Samara, Russia*),
ID 5571 **G.P. Anshakov, A.I. Manturov, Yu.M. Ustalov** (*SRP SRC TsSKB-Progress, Samara, Russia*)
Theory and Synthesis Methods of Integrated Control Programs of Remote Sensing SC Angular Motion for Many Alternating Observation Areas at Long Intervals

16.55 – 17.15 68. **I.V. Belokonov, A.V. Kramlikh** (*Samara State Aerospace University, Samara*)
ID 5111 Algorithmic Support of the Small-Sized Movement Tracking System for Small Satellites

17.15 – 17.35 69. **R.A. Dzesov, V.N. Zhukov, V.P. Pavlov** (*Mission Control Center of Central Scientific and Research Institute of Machine Building, Korolyov, Moscow region, Russia*)
ID 5031 Practical Aspects for Determination the ISS Trajectory Parameters for Provide Automation ATV Linking to the ISS

17.35 – 17.55 70. **A.B. Lukin, A.A. Chubykin, V.V. Sumerin, V.D. Shargorodskii** (*Scientific Research Institute of Precision Instrumentation Technologies, Moscow, Russia*)
ID 4991 **I.A. Zolkin, E.I. Ignatovich, A.F. Schekutjev** (*IAC KVNO TSNImash, Korolyov, Moscow region, Russia*)
Model Estimation of Intersatellite Measurements Information Features of Laser Navigation-Link System ISLNLS for Space Experiment 2009 on 2 SC GLONASS

18.30 – 22.00 **BANQUET**

SESSION III – SATELLITE SYSTEMS

PLENARY PAPERS

- 9.30 – 9.50 71. **E.A. Mikrin, M.V. Mikhailov, I.V. Orlovskiy, V.N. Platonov, S.N. Rozhkov, A.S. Semenov, R.V. Fedulov** (*RSC Energia, Korolyov, Moscow region, Russia*)
ID 4941
Operation of the ISS ASN-M, Its Characteristics and Possible Applications. The Prospects of Using Satellite Navigation System on Soyuz and Progress Spacecraft
- 9.50 – 10.10 72. **M. Happonen, P. Kokkonen, J. Viitanen, J. Ojala, J. Rajamäki**
ID 5411
(*Laurea University of Applied Sciences, Espoo, Finland*)
Jamming Detection in the Future Navigation and Tracking Systems
- 10.10 – 10.30 73. **P. Kovář, P. Kačmařík, F. Vejražka** (*Czech Technical University in Prague, Prague, Czech Republic*)
ID 5511
High Performance Galileo E5 Receiver
- 10.30 – 10.50 74. **V. Behar** (*Institute for Parallel Processing, Bulgarian Academy of Sciences, Bulgaria*), **Ch. Kabakchiev** (*Department of Information Technologies, Sofia University St Kl. Ohridski, Bulgaria*), **G. Gaydadjiev, G. Kuzmanov, P. Ganchosov** (*CE, EEMCS, Delft University of Technology, Netherlands*)
ID 5071
Parameter Optimization of the Adaptive MVDR QR-Based Beamformer for Jamming and Multipath Suppression in GPS/GLONASS Receivers

POSTER PAPERS*

- 10.50 – 11.20 75. **A.M. Aleshechkin** (*Institute of Engineering Physics and Radio Electronics of Siberian Federal University, Krasnoyarsk, Russia*)
ID 5541
Errors Estimation in the Angular Orientation Determination from Satellite Radio-Navigation Systems Signals
- ID 4881 76. **N.V. Mikhailov, M.V. Kholostov** (*MStar Semiconductor, Inc., Saint Petersburg, Russia*), **V.F. Mikhailov** (*St. Petersburg State University of Aerospace Instrumentation, Russia*)
Adaptive Multipath Mitigation in Mass Market GNSS Receiver
- ID 4891 77. **N.V. Mikhailov, A.V. Nikandrov, P.S. Glushkov** (*MStar Semiconductor, Inc., Saint Petersburg, Russia*), **V.F. Mikhailov** (*Saint Petersburg State University of Aerospace Instrumentation, Russia*)
Automated Functional Regression Testing of GNSS Receivers
- ID 4901 78. **N.V. Mikhailov, M.V. Vasilyev** (*MStar Semiconductor, Inc., Saint Petersburg, Russia*), **N.V. Vasilyeva** (*Branch Office Open Joint Stock Company AUSRIRE AUSRIRE-Navigator, Saint Petersburg, Russia*)
Method of Autonomous Calculation of Long-Term Ephemerides in GNSS

* *The authors of poster papers present 1-2 slides within 3 minutes at the plenary session; the discussion will be continued at the posters.*

ID 5091 79. **Wei Gao, Xin Zhang, Gang Yang, Dongxu He** (*Harbin Engineering University, Harbin, China*)
The Method of Initial Alignment for Fiber-Optic Gyro Inertial System When Ship is Sailing

ID 4931 80. **V.I. Baburov, N.V. Ivantsevich, E.A. Panov, N.V. Vasilyeva** (*Branch Office of Open Joint Stock Company AUSRIRE AUSRIRE-Navigator, Saint Petersburg, Russia*)
Navigation Quality Analysis of GNSS and Local Augmentation Systems Using Mathematical Simulation

ID 5291 81. **O.O. Barabanov, L.P. Barabanova** (*Degtyarev Kovrov State Technological Academy, Kovrov, Vladimir region, Russia*)
GNSS Algorithms History Beginning from Apollonius

11.20 – 11.50

COFFEE BREAK

PLENARY PAPERS

11.50 – 12.10 82. **B. Vassileva** (*IPP, Bulgarian Academy of Sciences, Sofia, Bulgaria*), **B. Vassilev** (*Technical University of Sofia, Sofia, Bulgaria*)
ID 5121
EGNOS Performance Analysis and a Novel Algorithm for System's Parameters Improvement

12.10 – 12.30 83. **N.V. Mikhailov** (*MStar Semiconductor, Inc., Saint Petersburg, Russia*),
ID 4921 **V.F. Mikhailov** (*Saint Petersburg State University of Aerospace Instrumentation, Russia*)
Digital Signal Processing in Space-Borne GNSS Receivers

12.30 – 13.00

CLOSING CEREMONY

13.00 – 14.00

LUNCH

14.00 – 15.00

VISIT TO THE EXHIBITION OF SAMPLES OF NEW EQUIPMENT DEVELOPED BY CSRI ELEKTROPRIBOR OR TO THE ENTERPRISE MUSEUM
(at conferees' option)