

PRELIMINARY PROGRAM¹

MONDAY, 28 MAY

8.00 – 9.50 REGISTRATION OF CONFERENCE PARTICIPANTS

10.00 – 10.15 **OPENING CEREMONY**

SESSION I – INERTIAL SYSTEMS AND SENSORS

Chairmen – **Prof. D.P. Lukyanov**, Russia

Prof. H. Sorg, Germany

INVITED PAPER

- 10.15 – 11.00 1. **D. Meyer, D. Rozelle** (*Northrop Grumman Navigation Systems Division, Woodland Hills, USA*)
Milli-HRG Inertial Navigation System
- 11.00 – 11.30 COFFEE BREAK

PLENARY PAPERS

- 11.30 – 11.50 2. **Ya.I.Binder, A.S.Lysenko, T.V.Paderina, V.G.Rozentsvein**
13² (*Concern CSRI Elektropribor, JSC, St. Petersburg, Russia*)
Drift Autocompensation for Angular Rate Sensors in a Continuous Gyroinclinometer by Discrete Modulation Rotations
- 11.50 – 12.10 3. **A.G.Kuznetsov, V.I.Galkin, A.V.Molchanov, B.I.Portnov, A.M.Yakubovich**
41 (*Moscow Institute of Electromechanics and Automatics, Moscow, Russia*)
The Results of Micromechanical Unit Development and Flight Tests

POSTER PAPERS³

- 12.10 – 12.50 4. **I.V. Merkuryev, V.V. Podalkov, E.S. Sbytova** (*Moscow Power Engineering Institute (National Research University), Moscow, Russia*)
70 Dynamics of the Micromechanical Gyroscope with the Monocrystal Disk Resonator
- 78** 5. **Ya.V. Belyaev, Ya.A. Nekrasov** (*Concern CSRI Elektropribor, JSC, St. Petersburg, Russia*)
RR-type Micromechanical Gyro: Results from Performance Tests in Matched Mode with High Q-Factor of Sense Loop
- 50** 6. **M.A.Basarab, M.A.Ivoilov, V.A.Matveev** (*Bauman Moscow State Technical University, Moscow, Russia*)
Utilization of a Neural Network Algorithm for Balancing of Hemispherical Resonator Gyro
- 33** 7. **E.A. Chumankin** (*JSC “Arzamas Research and Production Enterprise “TEMP-AVIA, Arzamas, Russia*)
The Results of Rate Sensor Design Based on a Hemispherical Resonator Gyro

¹ The Conference Program Committee reserves the right to make alterations to the final Conference Program.

² Paper No. in CoMS-Elektropribor system.

³ The authors of poster papers **at the plenary session** are given **3 min** to present the main idea of the paper with 1-2 slides, if any; further discussion will continue at the posters.

- 35 8. **N.I.Krobka, A.I.Bidenko, N.V.Tribulev, V.S.Chernichenko** (*Branch of the Center for Ground-Based Space Infrastructure Facilities Operation “Scientific & Research Institute for Applied Mechanics named after academician V.I.Kuznetsov”, Moscow State Technical University named after Bauman, Russia*)
Project Hyper of European Space Agency Versus Project Gravity Probe B of Stanford University
- 1 9. **I.G.Ancev, S. V.Bogoslovsky, G.A.Sapozhnikov** (*JSC Radar mms, Saint Petersburg, Russia*)
Mirror Topology for Differential Saw Sensor
- 64 10. **E.A.Bondarenko, A.Y.Vakhlakov, V.V.Liakhin, A.S.Ridila** (*Arsenal Special Device Production State Enterprise, Kiev, Ukraine*)
Laser Gyroscopes for Strapdown Inertial Navigation Systems
- 48 11. **Yu.Yu.Broslavets, M.A.Georgieva, A.A.Fomitchev** (*Moscow Institute of Physics and Technology (State University), JSC “Lasex”, Russia*)
Influence of Spectral Characteristics of the Broadband Active Medium on the Stability of Bidirectional Generation and Mode Locking in a Ring YAG:Cr⁴⁺ Laser
- 38 12. **V.Yu.Mishin, D.A.Morozov, M.V.Chirkin, S.Yu.Alexeev** (*Ryazan State Radio Engineering University, Russia*), **M.V.Borisov, M.A.Zaharov, A.V.Molchanov**, (*Moscow Institute of Electromechanics & Automatics, Moscow, Russia*)
Technological Aspects of Precision Ring Laser Production: Synchronization Threshold Measurements in Manufacture and Operation
- 17 13. **V.I.Vinogradov** (*Plant “Elektropribor”, Tambov, Russia*)
The Recombination Process Moving of the Atoms in a DC Discharge and its Application in Ring Lasers
- 99 14. **P.K. Plotnikov, Yu.A. Zaharov, S.G. Naumov** (*Saratov State Technical University, Saratov, Russia*)
Comparative Analysis of the Errors of the Gimbal Suspension Gyroscopic Devices with the Use of Various Friction Force Models Describing Predisplacement Effect
- 98 15. **L.A. Melnikov; P.K. Plotnikov** (*Saratov State Technical University, Saratov, Russia*)
Issues of the Theory and Application of the Microwave Gyros

12.50 – 13.00 **Discussion of the poster papers**

13.00 – 14.00 LUNCH

Chairmen – **Dr. Yu.A. Litmanovich**, Russia
Dr. J. Mark, USA

PLENARY PAPERS

- 14.00 – 14.20 16. **A.E.Fedorov, D.A.Rekunov** (*Open Society «Ramensky Instrument Engineering Plant» (RPZ), Russia*)
51 The Inertial Measurement Unit IMU-2 Based on Three-Component Laser Gyroscope
- 14.20 – 14.40 17. **Yu. M.Zlatkin, A. N.Kalnoguz, V.G.Voronchenko** (*RPE «Hartron-Arkos», Kharkov, Ukraine*), **N.I.Likholit, A.Yu.Vakhlakov, A.M.Sladkiy** (*KP SPS «Arsenal», Kiev, Ukraine*), **V.M.Slyusar** (*«NTUU «KPI», Kiev, Ukraine*)
57 Laser Strap Down INS for the Cyclone-4 Launch-Vehicle

POSTER PAPERS ¹

- 14.40 – 15.30
80 18. **T.L.Egorova, A.S.Larshin** (*Center for Ground-Based Space Infrastructure Facilities Operation – FGUP «TSENKI», Moscow, Russia*), **S.F.Konovakov, A.V.Polynkov, A.A.Trunov** (*Bauman Moscow State Technical University, Moscow, Russia*)
Accelerometers for Inclinometering Survey Application
- 63** 19. **N.I.Likholit, A.M.Shostak, Yu.Yu.Yur'yev, I.V.Nikonov** (*Arsenal Special Device Production State Enterprise, Kiev, Ukraine*), **N.G.Chernyak** (*National Technical University of Ukraine "Kiev Polytechnical Institute", Kiev, Ukraine*).
Accelerometers for Strapdown Inertial Navigation Systems
- 14** 20. **V.E.Dzhashitov, V.M.Pankratov, A.V.Golikov** (*Precision Mechanics and Control Institute, Russian Academy of Sciences, Saratov, Russia*)
Practical and Educational - Scientific Tasks with the Express Train Examination of Knowledges for the Theory of Gyroscopes on the Basis of Computer Technologies
- 87** 21. **D.M.Kalihman, L.Y.Kalihman, Y.V.Sadomcev, E. A.Deputatova, S. F Nahov** (*NPCAP im. Pilugina, Saratov, Russia*)
The Triaxial Universal Stand with a Digital Control System for the Control of Gyroscopic Devices
- 67** 22. **M.V.Chirkin; V.V.Klimakov, V.N.Melekhin, A.I.Ulitenko** (*Ryazan State Radio Engineering University, Ryazan, Russia*), **A.V.Molchanov** (*Moscow Institute of Electromechanics & Automatics, Moscow, Russia*)
Passive Heat Removal Elements Integrated into the Design of the Strapdown Inertial Navigation System
- 24** 23. **Y.G.Egorov, S.V.Smirnov** (*Bauman Moscow State Technical University, Moscow, Russia*)
Simulation of Adaptive Correction Algorithms of Radio Telescope Inertial Orientation System
- 58** 24. **M.Ilyas, R.Zhang** (*School of Automation Science and Electrical Engineering, Beihang University, Beijing, China*), **Y.C.Yang** (*NavTechnology Co, Beijing, China*)
Analysis of Initial Alignment of Strapdown Inertial Navigation System Using Kalman Smoother
- 42** 25. **V.G. Andreyev, V.A. Belokurov, V.I.Koshelev** (*Ryazan State Radio Engineering University, Ryazan, Russia*)
Initial Alignment of Strapdown Inertial Navigation System with Compensation of Carrier Vibration
- 22** 26. **L.Belsky, L.Vodicheva, E.Alievskaya, Yu.Parysheva** (*FSUE "Academician N.A.Semikhatov Scientific and Production Association of Automatics", Yekaterinburg, Russia*)
Accuracy Improvement of Strapdown INS Gyrocompassing under Prelaunch Lifting of Flying Vehicle
- 25** 27. **A.V.Derevyankin, A.I.Matasov** (*Moscow Lomonosov State University, Moscow, Russia*)
Limiting Accuracies for Bench Calibration of Strapdown Inertial Navigation Systems

¹ The authors of poster papers **at the plenary session** are given **3 min to present the main idea of the paper** with 1-2 slides, if any; further discussion will continue at the posters.

- 29 28. **S. Han, B. Yuan, G. Rao, G. Wang, D. Liao** (*College of Opto-Electric Science and Engineering, National University of Defense Technology, Changsha, P.R.China*)
Initial Alignment Approach of a Two-Axis Indexing INS for Marine Applications
- 30 29. **G. Rao, G. Wang, B. Yuan, S. Han** (*National University of Defense Technology, China*)
Calibration of Laser Inertial Navigator with Dual-Axis Rotation
- 71 30. **P.P.Paramonov, A.V.Shukalov, Yu.I.Sabo** (*FSUE "Saint Petersburg Development Design Bureau Electroavtomatika named after P.A. Efimov", Saint Petersburg, Russia*);
V.Y.Raspopov, Yu.V.Ivanov, A.P.Shvedov, A.V.Ladonkin, V.V.Matveev (*FSBE IHPE "Tula State University", Tula, Russia*)
Backup Strapdown Attitude Control System on Russian-Made Measuring Base
- 82 31. **Vadym Avrutov, Sergiy Golovach, Tetiana Mazepa** (*National Technical University of Ukraine (Kiev Polytechnic Institute), Ukraine*)
On Scalar Calibration of an Inertial Measurement Unit
- 84 32. **V.M. Kutovoy, O.I. Maslova, S.Yu. Perepelkina, A.A. Fedotov** (*FSUE "Scientific & Production Association of Automatics named after Academician N.A. Semikhatov", Russia*)
Navigation Device Development Technique Based on a Strapdown Inertial Unit in the Process of Flight Tests Preparation
- 100 33. **B.V. Klimkovich** (*OJSC Minsk Watch Plant Luch, Minsk, Belarus*)
Applying Nonholonomic Constraints for Correcting Inertial Navigation Systems of Land Wheeled Vehicles

15.30 – 15.40 **Discussion of the poster papers**

15.40 – 16.10 COFFEE BREAK

PLENARY PAPERS

- 16.10 – 16.30 34. **Pavel Davidson, Jarmo Takala** (*Department of Computer Systems, Tampere University of Technology, Finland*)
18
Algorithm for Pedestrian Navigation Combining IMU Measurements and Gait Models
- 16.30 – 16.50 35. **B.E. Landau, G.I. Emeliantsev, S.S. Gurevich, V.I. Zavgorodny, S.L. Levin, B.V. Odintsov, S.G. Romanenko** (*Concern CSRI Elektropribor, JSC, St.Petersburg, Russia*)
77
In-Flight Calibration of ESG-Based Attitude Reference System for Orbital Spacecraft: Testing and Improving the Method in Ground Conditions

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

SESSION II – INTEGRATED SYSTEMS

Chairmen – **Dr. B.S. Rivkin**, Russia
Mr. L. Camberlein, France

INVITED PAPER

- 9.00 – 9.45 36. **Prof. Dr.-Ing. Peter Vörsmann, Thomas Krüger, Claus-Sebastian Wilkens** (*Institute of Aerospace Systems, Technische Universität Braunschweig, Braunschweig, Germany*)
 MEMS Based Integrated Navigation Systems for Adaptive Flight Control of Unmanned Aircraft - State of the Art and Future Developments

PLENARY PAPERS

- 9.45 – 10.05 37. **A.V. Ladonkin, V.Ya. Raspopov** (*Tula State University, Tula, Russia*)
 62 Optical Orientation Systems in Control Circuit of Unmanned Aerial Vehicle
- 10.05 – 10.25 38. **T.B. Criss, M.S. Asher** (*The Johns Hopkins University Applied Physics Laboratory, USA*)
 52 Image and Terrain Navigation Applied to Civil Aviation
- 10.25 – 10.45 39. **G.A. Avanesov, R.V. Bessonov, A.N. Kurkina, E.A. Mysnik, A.S. Liskiv** (*Space Research Institute of Russian Academy of Science, Moscow, Russia*), **I.S. Kayutin, M.B. Lyudomirskiy, N.E. Yamshchikov** (*Electrooptika Corp., Moscow, Russia*)
 28 Development of Autonomous Strapdown Stellar-Inertial Navigation System
- 10.45 – 11.05 40. **R. A. J.Chagas, J. Waldmann** (*Instituto Tecnológico de Aeronáutica, São José dos Campos, Brazil*)
 55 Geometric Inference-Based Observability Analysis Digest of INS Error Model with GPS/Magnetometer/Camera Aiding
- 11.05 – 11.35 COFFEE BREAK
- 11.35 – 11.55 41. **Ranjan Vepa, Kanella Petrakou** (*University of London, UK*)
 2 Ubiquitous Positioning Using High Precision Integrated Satellite, INS and Multiple-Imaging Sensors
- 11.55 – 12.15 42. **S.L.Bulgakov, Yu.P.Mikheenkov, V.N.Kryuchkov, O.I.Fedoskin, D.A.Khilevich** (*JSC «LaserService», Russia*)
 37 Inertial-Satellite Navigation System for Synthetic Aperture Radar

POSTER PAPERS¹

- 12.15 – 12.45 43. **A.K. Volkovitsky, E.V. Karshakov, E.V. Moilanen, B.V. Pavlov** (*ICS RAS, Moscow, Russia*)
 16 Magnetic Gradiometer Correlation-Extremal and Inertial Navigation Systems Coupling
- 69 44. **Yu.L.Smoller, S.Sh.Yurist** (*ZAO NTP "Gravimetric Technologies", Russia*), **O.N.Bogdanov, Yu.V.Bolotin, A.A.Golovan, A.V.Kozlov** (*Moscow State Lomonosov University, Russia*)
 Results of Tests of the Strapdown Gravimeter GT-X on the Yacht

¹ The authors of poster papers at the plenary session are given 3 min to present the main idea of the paper with 1-2 slides, if any; further discussion will continue at the posters.

- 27 45. **L.R. Lustosa, J. Waldmann** (*ITA - Instituto Tecnológico da Aeronáutica, São José dos Campos, **Brasil***)
Addressing the Statistical Consistency of Extended Kalman Filtering for Aided Inertial Navigation Using Adaptive Techniques
- 23 46. **V.V. Voronov, O.Yu. Kupervasser** (*R.E.T.Kronshtadt, ZAO, Moscow, **Russia***)
Aiding of Inertial Navigation System Errors by Means of Vision-Based Navigation Algorithms
- 26 47. **V.V. Avrutov, I.Y. Shturma** (*National Technical University of Ukraine “Kiev Polytechnic Institute”, **Ukraine***)
Inertial Measurement Unit with USB-Port
- 60 48. **Muhammad Ushaq, Fang Jian Cheng, Yu Wen Bo** (*Beihang University, Beijing, **China***)
A New Scheme on Utilizing Federated Kalman Filter for Enhancement of Reliability and Fault Tolerance of Integrated Navigation Systems
- 66 49. **A.S. Populovskiy, D.I. Ishchuk** (*FSUE Central Research Institute of Chemistry and Mechanics, Moscow, **Russia***)
Small-sized Autonomous Underwater Navigating System Based on Inertial MEMS Sensors and Hydro Acoustic Doppler Velocity Log
- 76 50. **A.F. Dyumin** (*Samara Technical University, Samara, **Russia***)
The Use of Kalman Filter in Attitude System Errors Calibration of Inertial Space Vehicle

12.45 – 13.00 **Discussion of the poster papers**

13.00 – 14.00 LUNCH

Chairmen – **Dr. A.V. Sokolov**, Russia
Dr. A.V. Zbrutsky, Ukraine

PLENARY PAPERS

- 14.00 – 14.20 51. **J. Roth, T. Schaich, G. F. Trommer** (*Institute of Systems Optimization (ITE), Karlsruhe Institute of Technology, **Germany***)
85 Cooperative GNSS-Based Method for Vehicle Positioning
- 14.20 – 14.40 52. **V.D.Dishel, A.K.Bykov, N.V.Sokolova, V.G.Sulimov, E.U. Zhigulevtseva**
96 (*Academician Pilyugin Center, **Russia***)
General Conclusions from 3-Year Use of Integrated Inertial-Satellite GNC Systems for Space Launchers

POSTER PAPERS ¹

- 14.40 – 15.10 53. **D.V Sukhomlinov, A.V.Chernodarov, A.P.Patrikeev** (*Research & Production Association «Mobile Information Systems», **Russia***)
81 Seminatural Development of the Math-Based Software for a Strapdown Terrain-Aided Inertial Navigation System

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- 54 54. **Hamza Benzerrouk, Alexander Nebylov** (*International Institute for Advanced Aerospace Technologies, Saint Petersburg State University of Aerospace Instrumentation, **Russia***)
Real Time INS/GNSS FPGA Based Integrated Navigation System Under Jamming Environment
- 19 55. **V.B. Larin** (*Institute of Mechanics of NAS of Ukraine, Kiev, **Ukraine***), **A.A. Tunik** (*National Aviation University, Kiev, **Ukraine***)
«Hardware-Software» Tradeoff in the Accelerometer-Based Integrated Inertial-Satellite Low Cost System
- 83 56. **A. V. Prokhortsov, V.V. Savel'ev, V.A. Smirnov** (*Tula State University, **Russia***)
A Method of Orientation Data Correction of a Strapdown Inertial Navigation System by Signals Received from one satellite Navigation System Antenna
- 31 57. **Liu Wen, Zhang Yingjun, YANG Xuefeng** (*Navigation College of Dalian Maritime University, Dalian, **China***)
Applications of Inertial Navigation for Tracking the Personnel Motion During a Ship Fire Extinguishing
- 21 58. **Yu.M. Zlatkin, S.V. Oleynik, Yu.A. Kuznetsov** (*RPE Hartron-Arkos, Kharkov, **Ukraine***), **V.B. Uspenskiy, I.A. Bagnut** (*NTU "KhPI", Kharkov, **Ukraine***)
Technology and Results of Tests of the Strap-Down Star-Inertial unit for Control Systems of Spacecraft
- 12 59. **Mahdi Fathi, Sedighe Dehghani** (*Kheradafzaran Rahnamud Co. (KARCO), Navigation Group., Ekbatan, Tehran, **Iran***)
Aerial Strapdown Inertial Navigation System Aided with the Guided Trajectory Constraints
- 4 60. **Ye.I. Somov, S.A. Butyrin** (*Research Institute of Mechanical Systems Reliability, Samara State Technical University, Samara, **Russia***)
Longtime Target Planning at a Gyromoment Guidance of the Information Satellites

15.10 – 15.30 **Discussion of the poster papers**

15.30 – 16.00 COFFEE BREAK

Chairmen – **Prof. I.M. Okon**, Russia, USA
Prof. G. Trommer, Germany

PLENARY PAPERS

- 16.00 – 16.20 61. **A.Cohen** (*Sagem Défense Sécurité, Paris, **France***), **A.Trebukov** (*Inertial Technologies of Technokomplex, Ramenskoye, Moscow Region, **Russia***)
95 LINS-100RS New Generation INS/GPS/GLONASS System for Airborne Applications
- 16.20 – 16.40 62. **T.N. Vakhitov, A.B. Kolchev, P.V. Larionov, K.Yu. Schastlivets** (*JS «LASEX»*),
45 **V.B. Uspensky, A.A. Fomitchev** (*MIPT, **Russia***)
Design and Trial of Integrated Inertial-Satellite Navigating System NSI-2000MTG with the Enhanced Availability of Satellite Measurements

POSTER PAPERS¹

- 16.40 – 17.15
6
63. **A.Azenha, L.Peneda, A.Carvalho** (*Institute for Systems and Robotics, Faculty of Engineering, University of Porto, Porto, Portugal*)
Beacons Spatial Distribution Influence on Radio Frequency Indoors Localization Performance
- 49
64. **Mustafa Dinç, Chingiz Hajiyev** (*Department of Aeronautical and Astronautical Engineering Istanbul Technical University (ITU), Istanbul, Turkey*)
Integrated Navigation System Applied to Dynamic Modeling of Autonomous Underwater Vehicle
- 75
65. **K.K. Veremeenko, D.A.Antonov, R.Yu. Zimin, M.V.Zharkov, I.M. Kuznetsov, A.N.Pronkin** (*Moscow Aviation institute, Moscow, Russia*)
Small-Sized Integrated Navigation & Landing Complex of Variable Structure
- 10
66. **V.I. Baburov, N.V. Ivantsevich, N.V. Vasilyeva** (*Open Joint Stock Company «AUSRIRE», Saint Petersburg, Russia*)
Application of the Ground Radionavigation Stations for an Increase of GNSS Positioning Accuracy on User's Antenna Roll
- 72
67. **E.L.Mezheritskiy, V.M.Nikiforov** (*Federal State Unitary Academician Pilyugin Scientific-Production Center of Automatics and Instrument-Making, Moscow, Russia*), **M.M.Tchaikovskiy** (*Institute of Control Sciences of Russian Academy of Sciences, Moscow, Russia*), **N.D. Egupov** (*Bauman Moscow State Technical University (the Kaluga Branch), Russia*)
Robust Stabilization of Dynamic Systems Under Uncertain External Disturbing Factors by Convex Optimization
- 56
68. **R.N. Akhmetov, V.P. Makarov, A.V. Sollogub** (*TsSKB-Progress, Samara, Russia*)
Criteria-Based Approach on Creating on Onboard System of Automated Earth Observation Satellite Survivability Control
- 91
69. **K.G.Kebkal, O.G.Kebkal, Bannasch Rudolf** (*Evologics GmbH, Berlin, Germany*)
Combined System of Underwater Positioning and Digital Hydro-Acoustic Communication
- 20
70. **A.S. Galkina, A.I. Manturov, N.I. Pyrinov, V.E. Yurin** (*State Research and Production Space Rocket Centre TsSKB-Progress, Samara, Russia*)
Optimal Choice of Angular Motion Control Parameters in On-board Control Systems of Earth Remote Sensing Satellites
- 68
71. **Y.N. Gorelov, L.V. Kurganskaya, M.V. Morozova** (*Institution of the Russian Academy of Sciences Institute for the Control of Complex Systems of RAS, Russia*), **S.B. Danilov** (*Samara State University, Russia*)
Optimal Planning of Earth Remote Sensing Processes from Space
- 3
72. **Ye.I.Somov, S.A.Butyrin** (*Research Institute of Mechanical Systems Reliability, Samara State Technical University, Samara, Russia*)
Long-Term Target Planning at Gyromoment Guidance of the Information Satellites

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- 97 73. **M.V. Zhelamskij** (*"Transas – Aviation" Company, Russia*)
Both Magnetic and Electromagnetic Tracking of the Moving Objects

17.15 – 17.30 **Discussion of the poster papers**

18.00 DRINK RECEPTION

WEDNESDAY, 30 MAY

SESSION III – SATELLITE SYSTEMS

Chairmen – **Dr. O.A. Stepanov**, Russia
Dr. B.V. Shebshaevich, Russia

INVITED PAPER

- 9.00 – 9.45 74. **S.G. Revnivykh** (Information and Analysis Center for Positioning, Navigation and Timing, Central Research Institute of Machine Building, Federal Space Agency, *Korolyov, Moscow region, Russia*)
Tendencies for Development of Global Navigation Satellite Systems. GLONASS Status and Modernization

PLENARY PAPERS

- 9.45 – 10.05 75. **B.V. Shebshayevich, A.E. Tulyakov, V.E. Druzhin, A.D. Styazhkin, 88**
A.I. Khandozhko, A.A. Skobelin, M.N. Utkin (*"Russian Institute of Radionavigation and Time", Russia*), **V.E. Kosenko, V.A. Karnaukhov, Yu.S. Polyakov** (*"Information Satellite Systems" Reshetnev JSC, Russia*)
Some Test Results and Prospects for Development of "Glonass-K" GNSS Angle-Measuring Radiolink
- 10.05 – 10.25 76. **Y. Yoo, D. Cho, S. Park, M. Shin** (*Korea Ocean Research & Development Institute, 59*
Daejeon, South Korea)
Atmospheric Anomalies Detection Using GNSS Measurements Corruption

POSTER PAPERS¹

- 10.25 – 10.50 77. **Ye.I. Somov, S.A. Butyrin, S.Ye. Somov** (*Research Institute of Mechanical Systems 5*
Reliability, Samara State Technical University, Samara, Russia)
Optimizing Arrangement of the Onboard Navigation Antennas on Accuracy of Satellite Attitude Determination
- 90 78. **Ali Cepe Cepe** (*Lomonosov Moscow State University, Moscow, Russia*)
Aircraft True Course Estimation Using Antenna Diversity with a Double Difference Model
- 8 79. **V.V. Panfenov, A.A. Chekhov, I.N. Shestakov** (*The St. Petersburg State University 8*
of Civil Aviation, Russia)
The Development of the Relative Method of Determination of the Coordinates of Consumers in the GNSS
- 11 80. **E.G. Kharin, I.A. Kopylov, V.A. Kopelovich, V.B. Ilyin** (*FRI, Zhukovsky, Moscow 11*
region, Russia)
Evaluation of True Aircraft Velocity Values Using Data from GLONASS and GPS Systems

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- 44 81. **N.V. Mikhailov, A.L. Botchkovsky, D.E. Yudakin, P.V. Glushkov** (*Representative office of "White Dwarf Limited", British Virgin Islands*)
Multipath Mitigation with Extended GPS Signal Processing in Time and Frequency Domains
- 53 82. **Alexey Zhalilo** (*Kharkov National University of Radio Electronics (KhNURE), Ukraine*)
High-Precision Single-Frequency Static and Kinematic GNSS Positioning at Baselines ~100 km in Service Area of Sparse Networks of Permanent Reference Stations
- 73 83. **N.V. Mikhailov, S.S. Pospelov, D.E. Yudakin, P.V. Glushkov** (*Representative Office of "White Dwarf Limited", British Virgin Islands*)
Precomputation of GNSS Message Modulating Sequence and Extra-Long Coherent Accumulation Method
- 89 84. **A.A. Chubykin, V.V. Sumerin, V.D. Shargorodsky** (*SEC "SPP", Moscow, Russia*),
E.I. Ignatovich, I.A. Zolkin, A.F. Schekutiev (*TSNIImash, Korolyov, Moscow region, Russia*)
New Results in the Field of Processing and Use of the Intersatellite Measurements

10.50 – 11.00 **Discussion of the poster papers**

11.00 – 11.25 COFFEE BREAK

PLENARY PAPERS

- 11.25 – 11.45 85. **Ye.A. Mikrin, M.V. Mikhailov, S.N. Rozhkov, A.S. Semyonov, I.A. Krasnopolsky**
15 (*Rocket Space Corporation Energia, Korolyov, Moscow region, Russia*)
A Method for Improving Accuracy and Longevity of Ephemerides and Almanacs of GPS and GLONASS
- 11.45 – 12.05 86. **Petr Kacmarik, Ondrej Jakubov, Petr Roule, Pavel Kovar, Frantisek Vejrazka**
61 (*Department of Radio Engineering, Faculty of Electrical Engineering, Czech Technical University in Prague, Czech Republic*)
Measurement Results of Multi-System and Multi-Frequency Software Receiver: Current Performance of the Witch Navigator Receiver
- 12.05 – 12.25 87. **N.V. Mikhailov, V.V. Chistyakov** (*Representation of Commercial Company, "White Dwarf Limited", British Virgin Islands*)
74 Use of the «SoftFlex» Approach in the User Equipment for Satellite Navigation
- 12.25 – 12.45 88. **A.A. Bermishev, V.L. Lapshin, L.A. Krivospitsky, S.G. Revnivykh** (*Tsniimash, Korolyov, Moscow region, Russia*)
86 Results of the Study Navigation Conditions at the Transition of the Northern Sea Route in August-September 2011

12.45 – 13.00 **CLOSING CEREMONY**

13.00 – 14.00 LUNCH