List of accepted abstracts submitted to the 29th Saint Petersburg International Conference on Integrated Navigation Systems 30 May - 01 June 2022

with the decision of the International Program Committee based on the reviewing results

Abstract No. in the CoMS-EP system	Paper title	Decision of the International Program Committee
1.	A.V. Molodenkov, Ya.G. Sapunkov (Institute for Precision Mechanics and Control Problems of RAS, Saratov, Russia), T.V. Molodenkova (Yuri Gagarin State Technical University of Saratov, Russia) Analytical Quasi-Optimal Algorithm for Program Control of Attitude of an Axisymmetric Spacecraft	POSTER PAPER
2.	I. A. Pankratov (Saratov National Research State University, Russia), Yu. N.Chelnokov (Institute for Precision Mechanics and Control Problems of RAS, Saratov, Russia) Biquaternion Solution of the Problem of Optimal Minimum Time Control of the Spacecraft Spatial Motion	POSTER PAPER
3.	A.Y. Knyazhsky and A.V.Nebylov (St. Petersburg State University of Aerospace Instrumentation, Russia) Method for Landing an Orbital Aircraft on a Low-Flying Vehicle with a Dynamic Principle of Support	POSTER PAPER
4.	B. Ali, K.S. Bakulev (National University of Science and Technology MISIS, Moscow, Russia); N.S. Gujva, R.N. Sadekov (National University of Science and Technology MISIS, Cognitive Technologies, Moscow, Russia), A.V. Sholokhov (Institute of Engineering Physics, Serphukov, Russia). Assessment of Tramway Location Accuracy in High-Rise Buildings Areas Using Visual Geoinformation Systems	PLENARY PAPER
5.	Yu.N. Chelnokov, A.V. Molodenkov, M. Yu. Loginov (Institute for Precision Mechanics and Control Problems of RAS, Saratov, Russia) Biquaternion Quasi-Optimal Analytical Solution for the Problem of Programmed Control of Spacecraft Spatial Motion	POSTER PAPER
6.	Ye. Somov, S. Butyrin, T. Somova (Samara State Technical University, Russia) Autonomous Guidance and Control of Mini-Satellites in a Low-Orbit Constellation during Areal Scanning Survey	POSTER PAPER
7.	Ye. Somov, S. Butyrin, S. Somov (Samara State Technical University, Russia) Control of a Space Robot Approaching Mini-Satellites in Low-Orbit Earth Survey Constellation	POSTER PAPER
8.	Akimov P.A., Matasov A.I. (Lomonosov Moscow State University, Russia) Algorithms of the Gyro Unit Calibration as a Minimax Problem Solution	POSTER PAPER

9.	Da Li, Hai-na Weng, Cheng-suo Li, Zhong Li, Zi-shan Zhang (Tianjin Navigation Instrument Research Institute, Tianjin, China), Yuan Yuan (Laboratory of Science and Technology on Marine Navigation and Control of China State Shipbuilding Corporation, Tianjin, China) System-Level Calibration Method for Rotary Accelerometer Gravity Gradiometer	PLENARY PAPER
10.	M.Yu.Belyaev, P.A. Borovikhin, A.M. Esakov, D. Yu. Karavaev, I.V. Rasskazov (S.P. Korolev Rocket and Space Corporation Energia, Korolev, Russia) New Methods of Steering Scientific Instruments to Point Them towards Survey Targets in the Uragan Experiment onboard the ISS	PLENARY PAPER
11.	M.A. Belousov, A. I. Krivosheev (PNPPK, Perm, Russia) Compensation of Excess Intensity Noise of a Light Source in a Fiber-Optic Gyroscope	POSTER PAPER
12.	Jing Zhong Zheng, M.S. Selezneva, K.A.Neusypin, Rui Yang Zhou (Bauman Moscow State Technical University, Russia) Adaptive Super-Twisting Sliding Mode Attitude Control for Moving Mass-Actuated Unmanned Aerial Vehicles	POSTER PAPER
13.	V.N. Kovregin, G.M. Kovregina (St. Petersburg State University of Aerospace Instrumentation, Russia) Method for Adaptive-Robust All-Angle Observation of an Air Object with an Extended Range of Relative Speeds in a Radar with Quasi-Continuous Chirp Radiation	POSTER PAPER
14.	V.N. Kovregin, G.M. Kovregina (St. Petersburg State University of Aerospace Instrumentation, Russia) Method for Observing a Hovering Object against the Background of the Earth in Radars with Quasi-Continuous Chirp Radiation	POSTER PAPER
15.	I.S. Zaitceva, B.R. Andrievsky (Institute for Problems in Mechanical Engineering of RAS, St. Petersburg State University, St. Petersburg, Russia) Application of Nonlinear Correction Approach to Prevent String Instability in Course Control of Unmanned Aerial Vehicles	POSTER PAPER
16.	V.I. Baburov, N.V. Vasilyeva (Navigator JSC, St.Petersburg, Russia), N.V. Ivantsevich (Navigator JSC, D.F. Ustinov Baltic State Technical University Voenmeh, St. Petersburg, Russia) Analysis of the Positioning Accuracy Using Two Satellite Navigation Systems under the Conditions of User Rolls	POSTER PAPER
17.	Libin Zeng, Yao Pan, Xingyuan Tang, Yunfeng Tao, Jianping Liu, Hui Luo (National University of Defense Technology, Changsha, China) Investigation on Influence of Geometric Error and Structure on Vibrational Characteristics of Hemispherical Resonator	POSTER PAPER
18.	D.M. Malyutin (<i>Tula State University, Tula, Russia</i>), Y.N. Adyakin , V.A. Orlov , A.P. Shvedov (<i>NPO Strela, Tula, Russia</i>) Dynamics of the Channel of a Controlled Indicator Gyrostabilizer for Measuring the Angular Velocity of an Observed Object's Line of Sight	POSTER PAPER

19	D.M. Malyutin (Tula State University, Tula, Russia), Y.N. Adyakin, V.A. Orlov, A.P. Shvedov, V.A. Borisov, A.V. Ladonkin (NPO Strela, Tula, Russia) Payload Positioning System	POSTER PAPER
20	B. Klimkovich (OKB TSP, Minsk, Belarus) Calibration of SINS by Specific Force Differences	POSTER PAPER
21	M.A. Basarab (Bauman Moscow State Technical University, NUK IU, Moscow, Russia), A. Giani, P. Combette (University of Montpellier, Institut d'Electronique et des Systèmes (IES), Montpellier, France), B.S. Lunin (Lomonosov Moscow State University, Russia) Thermal Accelerometer Analytical Simulation and Design Based on the Generalized Spherical Model	POSTER PAPER
22	M.E. Rulev, V.M. Achildiev (Scientific Production Company GEOPHIZIKA-NV, Moscow, Mytischi Branch of Bauman Moscow State Technical University, Mytischi, Russia), Yu.K. Gruzevich (Scientific Production Company GEOPHIZIKA-NV, Bauman Moscow State Technical University, Moscow, Russia), N.A. Bedro (Scientific Production Company GEOPHIZIKA-NV, Moscow, Russia) Development of an Error Model for an Electroseismocardiography System	POSTER PAPER
23	P.N. Nikolaev, A.S. Espinoza Valles, M.S. Shcherbakov (Samara National Research University, Russia). Calibration of Onboard Magnetometers of the SamSat-ION Nanosatellite	POSTER PAPER
24	N.N. Vasilyuk (Electrooptika, Moscow, Russia) Accumulation of Motion-Blurred Stars Images Obtained by a Strapdown Astroinertial Navigation System under Daytime Conditions	POSTER PAPER
25	E.V. Barinova, N.A. Elisov, A.V. Kramlikh, I.A. Lomaka (Samara National Research University, Russia) Angular Motion Control of a Low-Orbit Nanosatellite Using Aerodynamic Surfaces	POSTER PAPER
26	E.V. Barinova, I.V. Belokonov, I.A. Timbai (Samara National Research University, Russia) On Predicting the Decrease in Altitude of a Cubesat Nanosatellite with Consideration for its Motion Relative to the Mass Center	POSTER PAPER
27	L. Lovitskiy, I. Kopylov, Ye. Kharin, V. Kopelovich, A. Yakushev, E. Stepanova (Gromov Flight Research Institute, Zhukovsky, Russia) Evaluation of Enhanced Ground Proximity Warning System Through Flight Trials	POSTER PAPER
28	Y.Bai, W. Hong, Y.C. Wu, B. Huang, Y.L. Zhao (No.16 Institute The 9th Academy China Aerospace Science and Technology Corporation, Xi'an; China) Influence of Digital Temperature Control Circuit on Starting Time	PLENARY PAPER

29	A.V. Chernodarov, A.P. Patrikeev ("NaukaSoft" Research & Production Association, Ltd., Moscow, Russia), N.P. Starostin (Ramenskoye Design Company, Ramenskoye, Moscow Region, Russia) Investigation of the Emergency Mode of the SINS-500NS Strapdown Inertial-Satellite Navigation System Based on Flight Data	POSTER PAPER
30	A.V. Chernodarov ("NaukaSoft" Research & Production Association, Ltd., Moscow, Russia), V.N. Kovregin, G.M. Kovregina (St. Petersburg State University of Aerospace Instrumentation, St. Petersburg, Russia) Inertial-Satellite Micronavigation System for Radar with Synthetic Aperture and Doppler Channel for Measuring Trajectory Velocity	POSTER PAPER
31	V.F.Zhuravlev, S.E. Perelyaev (Ishlinsky Institute for Problems in Mechanics of RAS, Moscow, Russia) The Van der Pol Spatial Oscillator. Technical Applications in Modern Gyroscopy	PLENARY PAPER
32	A.A. Maslov, D.A. Maslov, I.V. Merkuryev, V.V. Podalkov (Moscow Power Engineering Institute, Moscow, Russia) The effect of the Reference Voltage on the Drift of a Wave Solid-State Gyroscope with Flat Electrodes	POSTER PAPER
33	G.M. Dovgobrod, D.S. Bakhtin, K.A. Dvornikov (CSRI Kyrs, Moscow, Russia) Hybrid Ship Motion Control Algorithm, Eliminating Saturation of the Control Loop	POSTER PAPER
34	S.E. Perelyaev (Ishlinsky Institute for Problems in Mechanics RAS, Moscow, Russia), A.A. Skripkin (SSTU named after Gagarin Yu. A., Saratov, Russia) To the Design Version of the Spatial Integrating Solid-State Wave Gyroscope	POSTER PAPER
35	Kuznetsov A. G., Molchanov A. V., Fomichev A. V. (Moscow Institute of Electromechanics and Automatics, Russia), Zheleznov V. M., Kozlov A. V. (Moscow State University, Russia) On Guaranteeing Tolerances for Strapdown INS Instrumental Errors	POSTER PAPER
36	F. L. Cernousko (Ishlinsky Institute for Problems in Mechanics of the Russian Academy of Sciences, Moscow, Russia) Algorithms of Body Reorientation by Means of Internal Auxiliary Masses	POSTER PAPER
38	Z.R. Zang, W. Hong, X.D. Hu, H.R. Yang, M.Z. Zhang, S.T. Ji, Z.J. Pan (No.16 Institute The 9th Academy China Aerospace Science and Technology Corporation, Xi'an; China) Research on Dead Zone Suppression of Fiber Optic Gyroscope Based on Cross-Coupling Intensity Calibration	POSTER PAPER
39	K.V. Dunaevskaya, V.B. Kostousov (N.N. Krasovskii Institute of Mathematics and Mechanics of the Ural Branch of the Russian Academy of Sciences, Yekaterinburg, Russia) Method for Calculating the Current Accuracy Characteristic of the Search Correlation-Extremal Algorithm	POSTER PAPER

40	I. V. Belokonov M. S. Shcherbakov (Samara University, Samara, Russia) Choice of Conditions for Ensuring Long-Term Passive Inspection in the Close Vicinity of a Spacecraft Motion in a Highly Elliptical Orbit	POSTER PAPER
41	D.V. Akulin, M.V. Mentiukov, S.A. Nozdrin (Special Technology Center, St. Petersburg, Russia) Nadir Finding System with Infrared Temperature Sensors for Cubesat Satellites	PLENARY PAPER
42	J. Yi, M.S. Selezneva, K.A. Neusypin, J. Zheng (Bauman Moscow State Technical University, Moscow, Russia) Application of the Self-Organization Algorithm with the Trend Redundancy in Navigation and Mapping of the Vehicle	POSTER PAPER
43	V.M. Kotlov, S.E. Perelyaev (State Research Institute of Aviation Systems, Moscow, Russia) Derivation of the Equations of Motion Dynamics of Ring Wave Solid-State and Pendulum Gyroscopes by the Method of Holonomic Mechanics	POSTER PAPER
44	A.V. Frolov, P.A. Shapovalov, Yu.V. Mikhaylov (JSC «CNIIAG», Moscow, Russia) Development of a Technique for Design and Optimization of the Bearing Structure of a Strapdown Inertial Navigation System	POSTER PAPER
45	M.Yu. Tkhorenko, E.V. Karshakov, I.A. Papusha (V.A. Trapeznikov Institute of Control Sciences of RAS,, Moscow, Russia) Inertial Navigation Aiding by the Means of Magnetic Measurements	POSTER PAPER
46	V.I. Baburov (Navigator JSC, St. Petersburg, Russia), N.V. Ivantsevich (Navigator JSC, D.F. Ustinov Baltic State Technical University Voenmeh, St. Petersburg, Russia), V.V. Khudoshin (Navigator JSC, St. Petersburg, Russia) Operation of an Aircraft Collision Avoidance System in Relative Navigation	POSTER PAPER
47	X. D. Hu, W. Hong, Z. R. Zang, Z. J. Pan, X. Yang, K. X. Liang, X. L. Jia, M. Z. Zhang (No. 16 Institute The 9th Academy China Aerospace Science and Technology Corporation, Xi'an; China) Theoretical Analysis and a New Optical Scheme for RIN Subtraction	PLENARY PAPER
48	Shurygin A. V. (Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia) Mathematical Models And Algorithms of the Onboard Multiposition Integrated Inertial-Satellite Motion Detection System	POSTER PAPER
49	Yu.Yu. Broslavets, A.A. Fomichev, E.A. Polukeev, V.G. Semenov, D.S. Redichkina, A.S. Nazarova (Moscow Institute of Physics and Technology, JSC Lasex, Dolgoprudny, Russia) Factors Affecting the Accuracy of a Solid-State Laser Gyroscope with Mode-Locking	POSTER PAPER

50	D.B.Pazychev (Integral Ltd, Moscow, Russia), R.N.Sadekov (Cognitive Technologies, Moscow, Russia), K.S.Bakulev (NITU «MISIS», Moscow, Russia) Low-Cost Navigation System for UAV	Combine with paper No. 51 and accept the combined paper as
51	D.B.Pazychev (Integral Ltd, Moscow, Russia), R.N.Sadekov (Cognitive Technologies, Moscow, Russia), K.S.Bakulev (NITU «MISIS», Moscow, Russia) Correction Algorithm for Low-Cost Navigation System of UAV	PLENARY PAPER
52	V. Smirnov, A.Prokhorov, N.Babukhin (<i>Tula State University Russia</i>) An Algorithm for Orientation and Navigation of a Moving Object Based on Image Processing from Several Optical Sensors	POSTER PAPER
53	L. Vodicheva, Yu. Parysheva, Ya. Savel'eva (Academician N.A. Semikhatov Scientific and Production Association of Automatics, Yekaterinburg, Russia) Comparative Analysis of Algorithms for Initial Alignment of a Strapdown INS with the Help of a Gimballed INS	POSTER PAPER
54	O.S. Balabaev, A.V. Prohortsov (<i>Tula State University, Russia</i>) Method for Determining the Navigation Parameters of an Automatic Mining Machine	POSTER PAPER
55	Yu.Yu. Broslavets, A.A. Fomichev, E.A. Polukeev, V.G. Semenov, D.S. Redichkina, A.S. Nazarova (Moscow Institute of Physics and Technology JSC Lasex, Dolgoprudny, Russia) Coupling of Counterpropagating Waves through Scattering by Elements of a Nonplanar Symmetric Resonator of a Four-Frequency Zeeman Laser Gyroscope	POSTER PAPER
56	Yu.Yu. Broslavets, A.A. Fomichev, E.A. Polukeev, V.G. Semenov, D.S. Redichkina, A.S. Nazarova (Moscow Institute of Physics and Technology, JSC Lasex, Dolgoprudny, Russia) Noise Suppression during Mode-Locking in a Laser Gyroscope Based on a Semiconductor Optical Amplifier with a Long Fiber Cavity	POSTER PAPER
57	S.E. Perelyaev (Institute of Problems of Mechanics named after A.Y. Ishlinsky RAS, Moscow, Russia), A.V. Alehin (JSC "Inertial Technologies of Technocomplex", Ramenskoye, Russia) Influence of Non-Identity of SWG Information Channels on the Working Amplitude of Oscillations in the Whole-Angle Mode	POSTER PAPER
58	S.B Berkovich, N.I. Kotov, A.V. Sholohov, R.R. Bikmaev (Institute of Engineering Physics, Serpukhov, Russia) Place Recognition Using a Siamese Neural Network in the Problem of Simultaneous Localization and Mapping with Sparse Sensing	PLENARY PAPER
59	Guangyi Shi (School of Software and Microelectronics, Peking University, Automation and Computer Aided Engineering, Chinese University of Hong Kong, China) Inertial Sensors Development and Applications	POSTER PAPER

60	V. B. Pudlovskiy (Russian Metrological Institute of Technical Physics and Radio Engineering VNIIFTRI), Mendeleevo, Moscow Power Engineering Institute, Moscow, Russia), A.P. Malyshev, S.A. Serov, S.V. Chernyh (Moscow Power Engineering Institute, Russia), A.A. Frolov (Russian Metrological Institute of Technical Physics and Radio Engineering VNIIFTRI), Mendeleevo, Russia) Synchronization of Time Scales of Local Navigation Systems and GNSS for "Seamless" Navigation in the City	POSTER PAPER
61	V.V. Lyubimov, I. Bakry (Samara National Research University, Russia) Synthesis of Two-Channel Control to Stabilize the Rotation of a Small Asymmetric Spacecraft in the Martian Atmosphere	POSTER PAPER
62	Y.V. Bolotin, A.V.Bragin (Moscow Lomonosov State University, Russia) Novel Aiding Algorithm for Autonomous Pedestrian Navigation	PLENARY PAPER
63	Yu.V. Yasyukevich (Institute of Solar-Terrestrial Physics SB RAS, Irkutsk, Russia), V.V. Demyanov (Institute of Solar-Terrestrial Physics SB RAS, Irkutsk State Transport University, Irkutsk, Russia) Space Weather Impact on the Global Navigation Satellite Systems Operation: Current State	POSTER PAPER
64	V. M. Nikiforov, A. A. Gusev, K. A. Andreev (Academician Pilyugin Scientific-Production Center of Automatics and Instrument-Making, Moscow, Russia) Approximate Solutions of Dynamic Problems for Devices of Automatic Control Systems Using Matrix Description and Matrix Operators	POSTER PAPER
66	M. O. Uss (ETMC Exponenta, Moscow, Russia) Concept of Developing a Digital Twin of a Ground-Based Navigation System	POSTER PAPER
67	A.E. Morozov, M.A. Belousov, D.Yu. Zobachev (PJSC PNPPK, Perm, Russia) Investigation of Time Delay Between Inertial Sensors of a High Precision Navigation System	POSTER PAPER
68	S. G. Shtek, M. A. Zheglov, V. V. Belyakov, O. G. Andreasyan, S. O. Vasetsky, P. S. Kuznetsov (State Research Institute of Instrument Engineering, Moscow, Russia) Development of Sensitive Element of Micro-opto-electromechanical Accelerometer	POSTER PAPER
69	V.F. Ivanov (St. Petersburg Branch of JSC NIIAS, St. Petersburg, Russia) High-Precision Positioning System of the Electric Multiple Unit Train of Fourth Automation Grade	PLENARY PAPER
70	O.S.Amosov, S.G.Amosova (V.A.Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia) Fractional Kalman Type Filters for Estimating the State, Parameters, and Order of Fractional Dynamical System in Problems of Navigation Information Processing	POSTER PAPER

71	A.S. Lysenko, V.I. Kulakova, D.V. Pershin (Special Technology Center, St. Petersburg, Russia) Attitude Determination and Control Algorithms to Support Optical Payload of an Earth Observation Nanosatellite	POSTER PAPER
72	V. Ya. Raspopov, S. V. Egorov (<i>Tula State University, Russia</i>) Theory and Practice of Developing a Wave Solid-State Gyroscope with a Metal Resonator	POSTER PAPER
73	M.V. Chirkin, A.E. Serebryakov, J.R. Ivanenko (Ryazan State Radio Engineering University, Russia), A.V. Molchanov (Moscow Institute of Electromechanics and Automatics, Russia), V.Yu. Mishin (Ryazan State Radio Engineering University, Russia) Suppression of Laser Gyroscope Stochastic Error without Dither Noising	POSTER PAPER
74	S.V. Smirnov, A.I. Karachkov, Yu.G. Egorov, M.N. Silchuk, G.Yu. Kiryachenko, G.S. Taranenko (Central Research Institute of Automation and Hydraulics, Moscow, Russia) Review and Comparative Analysis of Algorithms For Compensation of Methodological Errors from Non-Commutative Phenomena	POSTER PAPER
75	V.V. Matveev, A.V. Kalikanov, M.G. Pogorelov, V.V. Lihoshurst, M.N. Kirsanov, D.S. Streltsov (<i>Tula State University, Russia</i>) Implementation of the Free Wave Mode in Coriolis Vibrating Gyroscopes with Low-Q Resonators	Combine with paper No. 76 and accept the combined paper as
<mark>76</mark>	V.V. Matveev, A.V. Kalikanov, M.G. Pogorelov, V.V. Lihoshurst, M.N. Kirsanov, D.S. Streltsov (Tula State University, Russia)	POSTER PAPER
77	D. M. Kalikhman, E. A. Deputatova (Branch of Academician Pilyugin Center – Production Association Korpus, Saratov, Russia), S.V. Pchelintseva, V.O. Gorbachev (Yuri Gagarin State Technical University of Saratov, Russia) All Purpose Precision Test Bench with Inertial Sensing Elements and Aerostatic Suspension for Angular Rate Meters	POSTER PAPER
78	L.A. Martynova (Concern CSRI Elektropribor, JSC, St. Petersburg, Russia), K.V. Lantsov, V.V. Lantsov, A.V. Koryakin (State Research Institute of Applied Problems, St. Petersburg, Russia) Direction Finding Method for a Small-Sized Robotic Complex by a Mobile Observer in Difficult Terrain Conditions	POSTER PAPER
79	D.M. Kalikhman, L.Ya. Kalikhman, V.A. Turkin (Branch of Academician Pilyugin Center – Production Association Korpus, Saratov, Russia) Universal Methodology for Monitoring of IMU Parameters in SINS with Non-Orthogonal Orientation of the Measurement Axes	POSTER PAPER
80	A.V. Krysko, I.V. Papkova, T.Yu. Yaroshenko, V.A. Krysko (Lavrentyev Institute of Hydrodynamics, Novosibirsk, Yuri Gagarin State Technical University, Saratov, Russia) A New Mathematical Model Taking into Account the Strong Nonlinearity of Chaotic Vibrations, Functionally Graded Structural Elements of MEMS/NEMS under the Action of Mechanical, Hydrothermal Loading and Corrosion Wear	POSTER PAPER

81	V. S.Vyazmin, A.A.Golovan (Lomonosov Moscow State University, Moscow, Russia) Scalar and Vector Strapdown Gravimetry on Aircraft and UAV: Methodology of Surveying and Data Processing	PLENARY PAPER
82	S.S. Smirnov, S.D. Petrov (St. Petersburg State University, Russia), I.V. Chekunov (Bauman Moscow State Technical University, Russia), D.A. Trofimov (St. Petersburg State University, Russia) Local Radio Navigation System with Range Code	POSTER PAPER
83	S.I. Nazarov, A.O.Sinelnikov, N. V. Tikhmenev, A.A. Ushanov (GosNIIPJSC, Moscow, Russia) Interaction of a Laser Gyroscope Vibration Drive with an External Mechanical Disturbance	POSTER PAPER
84	A.A. Galyaev, A. S. Samokhin, M.A. Samokhina (V.A. Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia) A Study of the Evasive Detection Functional of a Moving Object in the Discrete Formulation	POSTER PAPER
86	A. S. Samokhin, M.A.Samokhina (V.A.Trapeznikov Institute of Control Sciences of RAS, Moscow, Russia) On Constructing the Trajectory of the Spacecraft Flight to Phobos with a Perturbation Maneuver near The Moon Based on the Solution of a Combination of Four Lambert Problems	POSTER PAPER
87	Papkova I.V., Yakovleva T.V., Krysko A.V., Krysko V.A. (Yuri Gagarin State Technical University of Saratov, Russia) A New Shear Mathematical Model of Oscillations of Lamellar Porous Functionally Gradient Accelerometers with an Attached Mass in a Temperature Field	POSTER PAPER
88	A.L. Tolstoy, S.D. Petrov, P.V. Movsesyan (St. Petersburg State University, Russia), I.V. Chekunov (Bauman Moscow State Technical University, Russia), D.A. Trofimov (St. Petersburg State University, Russia) Resolution of Integer Phase Ambiguity in the Absolute Coordinate Determinations from Satellite Radio Navigation Measurements	POSTER PAPER
89	Bolshakova A. V., Boronakhin A. M., Bokhman E. D., Larionov D. Yu., Podgornaya L. N., Tkachenko A. N., Shalymov R. V. (St. Petersburg Electrotechnical University LETI, Russia) Using Wavelet Transform to Analyze Railway Car Dynamics within Inertial Sensor Data	POSTER PAPER
90	I.D. Kostin, A.M. Popov, J.V. Fadeeva (D.F. Ustinov Military Technical University Voenmeh, St. Petersburg, Russia) The Algorithm of Integral Control of The Group of Small Satellites	POSTER PAPER
91	D.G. Kostrygin, A.M. Popov, A.A. Shevchik (D.F. Ustinov Military Technical University Voenmeh, St. Petersburg, Russia) Adaptive Control Algorithm for a UAV with Variable Mass	POSTER PAPER
92	L.G. LI, Z.J. Pan, Y.H.Wang, H.G. Chen, P. Zhang, P. Li, S.T. Ji, B. Ren (No.16 Institute The 9th Academy China Aerospace Science and Technology Corporation, Xi'an; China) Effect of Different Adhesives for the Fiber Coil with Skeleton on FOG Scale Factor Temperature Sensitivity	POSTER PAPER

93	K.B. Amelin, A.R. Bestugin, I.A. Kirshina, A.A. Rogova, O.I. Sauta, P.A. Semenov (St. Petersburg State University of Aerospace Instrumentation, Russia) Characteristics of the Satellite System for Landing an Aircraft on a Mobile Platform When Stabilizing the Glide Path Using Microelectromechanical Sensors	POSTER PAPER
94	C. Xu, C. Q. Hu, Q. Z. Li (Beijing Institute of Aerospace Control Devices, Beijing, China) Analysis of Navigation and Positioning Technology for Autonomous Recovery of Unmanned Surface Vehicles	POSTER PAPER
95	A.S. Gizzatov (<i>JSC NIIAS, St.Petersburg, Russia</i>) Fixing the Coordinates of a Rolling Stock to the Track Digital Model	POSTER PAPER
96	Iu.V. Ivshina, D. IU. Zobachev, T. A. Ulianovskaia (Perm National Research Polytechnic University, Perm Scientific-Industrial Instrument Making Company, Russia) Research of Influence of Motion Simulator Geometric Errors on Navigation System Calibration	POSTER PAPER
97	Petrukhin V.A., Lelkov K.S., Chernomorsky A.I. (Moscow Aviation Institute, Russia) Local Navigation of a Wheeled Mobile Robot as a Carrier of Equipment for Aircraft Defects Monitoring at the Parking Lot	POSTER PAPER
98	A. Golovan (Lomonosov Moscow State University, Russia), D. Smolyanov (Lomonosov Moscow State University, JSC Cognitive, Moscow, Russia) On the Navigation Problem of Unmanned Wheeled Agricultural Machinery Using MEMS-Based INS, GNSS and Odometry	POSTER PAPER
99	A.V. Astafiev, A.S. Astafiev, O.S. Astafieva (Vladimir State University, Russia) Indoor Positioning of a Person without Wearable Sensors, Based on Wi-Fi Channel State Information	POSTER PAPER
100	N. Vavilova, A. Golovan, A. Kozlov, I. Papusha (Lomonosov Moscow State University, Russia), V. Pavlinov, A. Kulikova, M. Shafeyev, A. Efimochkin, T. Rashkina (Ulyanovsk Instrument Manufacturing Design Bureau, Russia) Attitude and Heading Reference System Based on Microelectromechanical Sensors: Development and Testing Results	POSTER PAPER
101	P.A.Filatov (Moscow Institute of Physics and Technology, Russia); P.V. Larionov (JSC LASEX, Moscow, Russia) Q-Flex Accelerometer Error Correction Method Based on Support Vector Machine	POSTER PAPER
102	A.V. Nebylov, Vladimir A. Nebylov (St.Petersburg State University of Aerospace Instrumentation, Russia) Development of Construction Concepts for Heavy Flarecraft and WIG Vehicles	POSTER PAPER

103	O.V.Minina, A.V. Prokhortsov, V.A. Smirnov (Tula State University, Russia) Methods of Data Fusion in Integrated Navigation Systems Based on Signals from a Limited Number of Navigation Satellites	POSTER PAPER
106	S.E. Perelyaev (Ishlinsky Institute for Problem in Mechanics of RAS, Moscow, Russia), A.V. Chernodarov, A.P. Patrikeev (NaukaSoft Research & Production Association, Ltd., Moscow, Russia) Correlation Signal Processing and Structural-Parametric Identification of a Dynamic Error Model of a Wave Solid-State Gyro	POSTER PAPER
107	M.A. Barulina, D.V. Kondratov (Institute for Precision Mechanics and Control of RAS, Yuri Gagarin State Technical University of Saratov, Saratov, Russia), E.V. Pankratova, S.A. Galkina (Institute for Precision Mechanics and Control of RAS, Saratov, Russia) Conditions for the Chaotic Oscillations of Size-Dependent Planar Components of MEMS/NEMS Sensors	POSTER PAPER
108	A. N. Alexeev, E.S.Zemlyanyy, K.A. Chekanov (JSC Ramenskoye Design Company, Ramenskoye, Russia) Solution of a Positional Problem for Automatic Landing of an Unmanned Aerial Vehicle on a Runway Using Computer Vision	POSTER PAPER
109	Gao Shixuan, Liu Fumin, Xu Jie, Gao Naikun, Rui Xue (Beijing Institute of Aerospace Control Device, Beijing, China) Research on the Anti-Interference Closed-Loop Control System for Micro Silicon Resonant Accelerometer	POSTER PAPER
110	Jiayang Sun, Haoyu Gu, Bin Zhou, Qi Wei (Tsinghua University, Beijing, China) An Improved Least Mean Square Demodulator Based on Adaptive Moment Estimation Algorithm for LFM MEMS Gyroscope	POSTER PAPER
111	Yingwei Zhao, Jiaxing Zheng, Shiqiao Qin, Xingshu Wang (National University of Defense Technology, Changsha, China) LDV/INS Integrated Navigation Aided by Map Matching	PLENARY PAPER
112	Li Xiangyuan, Qin Shiqiao, Wang Xingshu, Tan Wenfeng, Zheng Jiaxing, Zhao Yingwei (National University of Defense Technology, Changsha, China) Multi Inertial Navigation System Fusion Method Considering Ship Deformation	PLENARY PAPER
113	V.I. Shiryaev, A.A. Bragina, V.P. Shcherbakov (South Ural State University, Chelyabinsk, Russia) Control of a Dynamical System by the Method of Lyapunov Functions under Uncertainty	POSTER PAPER
114	A.A. Fedotov, S.Yu. Perepelkina (Academician N.A. Semikhatov Scientific and Production Association of Automatics, Yekaterinburg, Russia) Improving the Performance of Strapdown Inertial Navigation Systems Using Typical Angular Motions	POSTER PAPER

115	Ya. A. Zubarev (POLYUS Research Institute JSC, Moscow, Russia), A.O. Sinelnikov (GosNIIP JSC, RUDN University, Moscow, Russia), D.A. Tereshchenko (POLYUS Research Institute JSC, Bauman Moscow State Technical University, Moscow, Russia) Accelerated Testing of Ring Laser Gyroscopes Persistence	POSTER PAPER
116	V.A. Pogorelov, E.G. Chub (Don State Technical University, Rostov-on-Don, Russia) Autonomous Estimation of the Stochastic State Vector of Unaided Gyrostabilized Platform	POSTER PAPER
117	V.I. Shiryaev, D.O. Prokhorova (South Ural State University (National Research University), Chelyabinsk, Russia) Combined Use of Kalman Filter and Minimax Filter	POSTER PAPER
118	A.N. Shevchenko (JSC CSRI Elektropribor, St. Petersburg, Russia) Investigation of the Effect of Magnetic Field Inhomogeneity on the Nuclear Magnetic Gyroscope Self-Oscillating Operating Mode	POSTER PAPER
119	A.V. Sokolov, O.A. Stepanov, A.V. Motorin, A.A. Krasnov (Concern CSRI Elektropribor, JSC; ITMO University, St. Petersburg, Russia) Comparison of Wiener and Kalman Filters in Processing the Results of Marine Gravimetric Survey	PLENARY PAPER
120	S.V. Kravchuk, A.B. Petrov, M.A. Shatskiy, I.V. Solovyev (Moscow Experimental Design Bureau MOKB Mars—Branch of Dukhov Russian National Research Institute of Automation, Moscow, Russia) Computer-Aided Design of Integrated Navigation Systems Operational Software	POSTER PAPER
121	O.A. Stepanov, V.A. Vasil'ev, A.M. Isaev (Concern CSRI Elektropribor, JSC; ITMO University; Electrotechnical University LETI, St. Petersburg, Russia) Map-aided navigation taking into account information about the object trajectory	PLENARY PAPER
122	Dongkai Dai, Jiaxing Zheng, Yuanman Ni, Xingshu Wang, Shiqiao Qin (National University of Defense Technology, Changsha, China) Improving Deflections of the Vertical Measurement by Using Rotational INS/GNSS Integration	PLENARY PAPER
123	Yuanman Ni, Dongkai Dai, Wenfeng Tan, Xingshu Wang, Shiqiao Qin (National University of Defense Technology, Changsha, China) Installation Error Calibration Method of Stellar/Inertial Integrated Navigation System for Star Tracker with Narrow Field of View	POSTER PAPER
124	Zhonghong Liang, Honggang Guo, Zhikun Liao, Lin Wang (National University of Defense Technology, Changsha, China) A Novel Calibration Method Between Dual Marine Rotational Inertial Navigation Systems Based on State Constraint Kalman Filter	PLENARY PAPER

125	Z. N. Wei, Y. W. Sun, G. X. Yi, B. Q. Xi, C. H. Wang (Space Control and Inertial Technology Research Center, Harbin Institute of Technology (HIT), Harbin, China) Standing Wave Vector Control Error Analysis and Its Suppression Method for Rate Integrating Hemispherical Resonator Gyro	POSTER PAPER
126	Xiaoge Ning (Shanghai Jiao Tong University (SJTU, Shanghai, Beijing Aerospace Times Optical-electronic Co. Ltd, Beijing, China), Jixun Huang (Beijing Institute of Aerospace Control Devices, Beijing, China), Jianxun Li (Shanghai Jiao Tong University (SJTU), Shanghai, China) Analysis of Kalman Filtering Initial Value Setting Influence in SINS Initial Alignment and Its Application to Large Misalignment Angle Alignment	POSTER PAPER
128	D.G. Gryazin, T.V. Paderina (Concern CSRI Elektropribor, JSC, St. Petersburg, Russia) Experience of Magnetic Compass Correction System Development	POSTER PAPER