



**Federal State Budgetary Institution of Science
Blagonravov Mechanical Engineering Research Institute of the Russian Academy of
Science**

Interdepartmental Scientific Council on Tribology

Association of Engineers-Tribologists of Russia

with the information support of scientific journals

*"Friction and wear", " Journal of machinery manufacture and reliability",
"Assembling in Mechanical Engineering and Instrument-Making" and "Lubricants"*

XII International Scientific Conference

“TRIBOLOGY FOR MECHANICAL ENGINEERING”

dedicated to the 80th anniversary of IMASH RAS

SCIENTIFIC PROGRAM

November 19-21, 2018

Conference Chairman

- *Ganiev R.F.*, academician of RAS, Scientific Director of IMASH RAS, Russia

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- *Lyubinin I.A.*, RN-Lubricants LLC, Moscow, Russia
- *Makarenko E.D.*, Innovative mechanical engineering publishers, Moscow, Russia
- *Myshkin N.T.*, academician of NAS of Belarus, MPRI NAS B, Gomel, Belarus
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- *Popov V.L.*, D.Sc., TU Berlin, Berlin, Germany
- *Psakhie S.G.*, corresponding member of RAS, ISPMS SB RAS, Tomsk, Russia
- *Savin L.A.*, D.Sc., OSU, Orel, Russia
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- *Prozhega M.V.*, Ph.D.
- *Saberov H.F.* Ph.D.
- *Samusenko V.D.*, Ph.D.
- *Silova T.M.*
- *Smirnov N.N.*
- *Khasyanova D.U.*, Ph.D.
- *Tsukanov I.Yu.*, Ph.D.

REGISTRATION

Registration of the Conference participants will be held on November 19, 2018 from 8:30 to 10:00 a.m. in Moscow at the address: IMASH RAS, Bardina st., 4, building 2, floor 2, lobby of the Conference Hall.

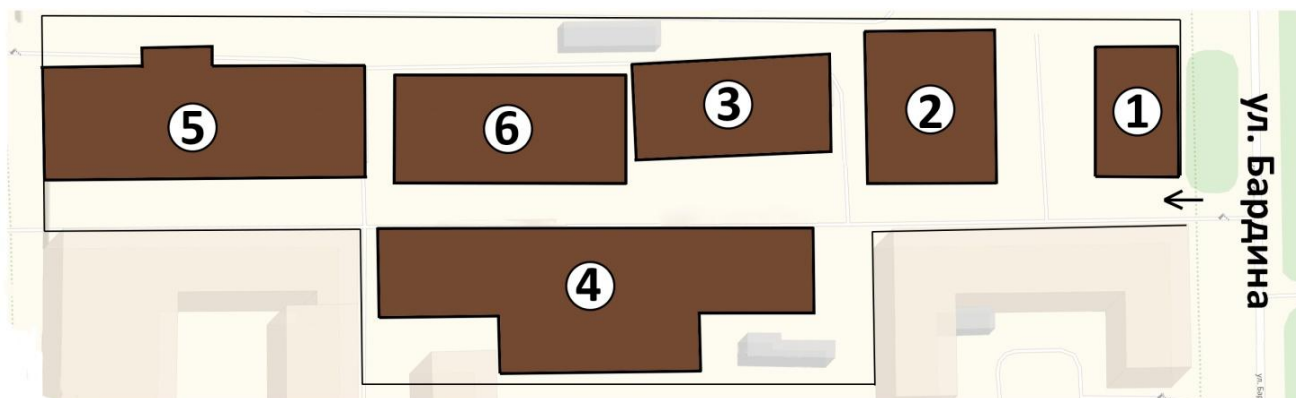
TIME LIMIT OF PRESENTATIONS

Duration of presentations: plenary - 20 minutes, session - 10 minutes. Illustrative material for plenary and session presentations should be presented in pdf or pptx format on a flash disk. At the end of each meeting, a discussion of the submitted presentations is scheduled.

The following technical sessions will work at the Conference:

No.	Title	Working language	Building, floor, room no.
1	The fundamental problems of tribology	English	Building 5, floor 2, room 2-22
2	Lubrication and lubricants	Russian	Building 4, floor 3, room 320
3	Tribological materials science	Russian	Building 4, floor 1, room 109
4	Friction units	Russian	Building 4, floor 1, room 112
5	Nanotribology	Russian	Building 2, floor 2, conference room
6	Metal working	Russian	Building 4, floor 3, room 320

PLAN OF THE IMASH RAS



SCHEDULE OF THE CONFERENCE

<u>11/19/2018</u>				
Registration of participants				From 08:30 to 10:00
Conference opening				10:00
Plenary session				From 10:30 to 17:30
<u>11/20/2018</u>				
Technical sessions				From 09:00 to 18:00
Fundamental problems of tribology	Lubrication and Lubricants	Tribological materials science	Friction units	
<u>11/21/2018</u>				
Technical sessions				From 09:00 to 12:30
Fundamental problems of tribology	Lubrication and Lubricants	Tribological materials science	Friction units	
Plenary session				From 13:30 to 15:30
Round Table Meeting				From 15:30 to 16:30
Final session				From 16:30 to 17:00
Conference closing				17:00

<i>November 19, 2018</i>	<i>Bardina St., 4, Building 2, Floor 2, Conference Hall</i>
OPENING OF THE CONFERENCE – 10⁰⁰	
DIVISION OF TRIBOLOGY - ONE OF THE LEADING DEPARTMENTS OF IMASH RAS <i>Ganiev R.F., academician of RAS, Scientific Director of IMASH RAS</i>	

PLENARY SESSION

Language – **Russian, English**

<i>19 November</i>	<i>10³⁰ – 13⁰⁰</i>	<i>Conference hall</i>
<i>Moderators: Glazunov V.A., Goryacheva I.G. Scientific secretary: Tsukanov I.Yu.</i>		
1.	TRIBOLOGICAL QUESTIONS IN MECHANISMS OF PARALLEL STRUCTURES OF ROBOTICS SYSTEMS Glazunov V.A. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)	Russia
2.	TRIBOLOGICAL SCHOOLS OF THE MECHANICAL ENGINEERING RESEARCH INSTITUTE OF THE RAS Buyanovsky I.A. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)	Russia
3.	PROBLEMS IN ANALYSIS OF FRICTION MECHANISMS Myshkin N.K., V.A. Belyi metal-polymer research institute of NAS of Belarus	Belarus
General photo of the conference participants		
Coffee break 11²⁰-11³⁵		
4.	MODELING AND EXPERIMENTAL STUDY OF ELASTOMERS FRICTION Goryacheva I.G. Ishlinsky Institute for Problems in Mechanics RAS	Russia
5.	60 YEARS OF RABINOWICZ CRITERION OF ADHESIVE WEAR: HISTORY AND RECENT ADVANCEMENTS IN SIMULATION OF ADHESIVE WEAR Popov V.L. Technische Universität Berlin	Germany
6.	ACTUAL TRIBOLOGY PROBLEMS ON THE RAILWAY TRANSPORT Zakharov S.M. JSC VNIIZhT (Railway Research Institute)	Russia
7.	EFFECT OF HERTZIAN CONTACT PRESSURE ON TRIBOLOGICAL BEHAVIOUR OF MILD CARBON STEEL Güleşen Mustafa Dumlupınar University	Turkey
Discussion		

Lunch (13⁰⁰-14⁰⁰)

<i>19 November</i>		<i>14⁰⁰ – 17³⁰</i>	<i>Conference hall</i>
<i>Moderators: Myshkin N.K., Buyanovsky I. A. Scientific secretary: Samusenko V.D.</i>			
8.	THE EFFECT OF ADDITIVES REFRACTORY METAL DICHALCOGENIDES ON THE TRIBOLOGICAL CHARACTERISTICS OF GREASES. Lyubinin I.A. RN-Lubricants LLC		Russia
9.	WEAR-CONTACT PROBLEM OF PRESSING OF BRAKE SHOE WITH FRICTION LINING INTO DRUM SURFACE Mirsalimov V.M., Azerbaijan Technical University		Azerbaijan
10.	ANTIFRICTION ABILITY AND ANTIFRICTION PROPERTIES OF HEAT-RESISTANT THERMOPLASTS Krasnov A.P. A.N.Nesmeyanov Institute of Organoelement Compounds of RAS		Russia
11.	STUDY OF STATIC AND BOUNDARY FRICTION OF VARIOUS TRIBOLOGICAL INTERFACES Pondichery Kartik Shanmughan Anton Paar GmbH		Austria
Coffee break 15⁴⁰ -15⁵⁵			
INFORMATION ON THE PUBLICATION OF THE EXPANDED ARTICLES IN THE SEPARATE ISSUE OF THE LUBRICANTS JOURNAL <i>Prozhega M.V, Organizing Committee</i>			
12.	TRIBOLOGY AND MATERIALS FOR SPACE ENGINERY Bronovets M.A. Ishlinsky Institute for Problems in Mechanics RAS		Russia
13.	SOLID PARTICLE EROSION OF GF/EP COATING FILLED WITH H-BN NANOPARTICLES Bagci Mehmet Konya Technical University		Turkey
14.	SOME PRINCIPLES OF BUILDING TRIBOSYSTEM MOLECULAR MODELS WITH LUBRICATION LAYER Godlevskiy V.A. Ivanovo State University		Russia
15.	ENVIRONMENTAL PROBLEMS OF TRIBOLOGY IN THE CONTEXT OF THE CARBON CYCLE Evdokimov A. Yu. Moscow State Linguistic University		Russia
16.	SOME PROSPERCTS OF THE HYDRODYNAMIC LUBRICATION THEORY Savin L.A. Orel State University named after I.S. Turgenev		Russia
Discussion			

FUNDAMENTAL PROBLEMS OF TRIBOLOGY

Language – **English**

<i>20 November</i>	<i>9⁰⁰-13⁰⁰</i>	<i>Building 5, Floor 2, room 2-22</i>
<p><i>Moderators: Albagachiev A.Yu., Popov V.L.</i> <i>Scientific secretary: Kulakov O.I.</i></p>		
1.	<p>STUDY AND SIMULATION OF SURFACE ROLLING CONTACT FATIGUE RAIL DAMAGES Zakharov S.M. JSC VNIIZhT (Railway Research Institute)</p>	
2.	<p>WEAR-RESISTANCE STUDY OF THE CARBUL TECHNOLOGY MANUFACTURED ALLOYED HYBRID POWDER MATERIALS Prozhega M.V. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)</p>	
3.	<p>INVESTIGATION OF EFFECTS OF PARTICLE THINNERS AND MODIFIERS ON ABRASION RESISTANCE OF SAND AND CHILLED CASTINGS OF A319 ALUMINUM ALLOYS Çolak Murat Bayburt University</p>	
4.	<p>INFLUENCE OF SURFACES ADHESION ON CONTACT CHARACTERISTICS DURING INDENTATION OF VISCOELASTIC BODIES WITH UNLOADING Lyubicheva A.N. Ishlinsky Institute for Problems in Mechanics RAS</p>	
5.	<p>INVESTIGATION OF THERMAL BARRIER COATINGS BOND AND TOP COAT HIGH TEMPERATURE SOLID PARTICLE EROSION RESISTANCE Demirci Musa KTO Karatay University</p>	
6.	<p>MODELLING OF FRICTION OF MULTILEVEL WAVY SURFACE ON A VISCOELASTIC FOUNDATION Makhovskaya Yu. Yu. Ishlinsky Institute for Problems in Mechanics RAS</p>	
Coffee break 10⁴⁵-11⁰⁰		
7.	<p>THE INVESTIGATION OF WEAR BEHAVIOR OF AL 7075/GRAPHITE COMPOSITES Güleşen Mustafa Dumlupinar University</p>	
8.	<p>FAST CONTACT SIMULATION OF SYSTEMS WITH FRICTIONAL CONTACTS Willert E. Technische Universität Berlin</p>	
9.	<p>ANALYSIS OF FRICTIONAL HEATING OF COATED BODIES Torskaya E.V. Ishlinsky Institute for Problems in Mechanics RAS</p>	
10.	<p>TRIBOLOGY OF CARBON BASED POLYMERIC NANOCOMPOSITES Upadhyay Ram Krishna Indian institute of technology</p>	
11.	<p>MATHEMATICAL MODEL OF THE PROCESS OF THE ENERGY DISSIPATION UNDER QUASYELASTIC ROLLING Savenko V.I. A.N. Frumkin Institute of Physical Chemistry and Electrochemistry of RAS</p>	

12.	THE INVESTIGATION OF TRIBOLOGICAL PROPERTIES OF GRAPHENE OXIDE FILLED PA6 POLYMER COMPOSITES Yetgin Salih Hakan Dumlupinar University
13.	KINETICS OF WEARING MODIFIED PRINCIPAL COATINGS BASED ON COPPER Sachek B.Ya. Ishlinsky Institute for Problems in Mechanics RAS

Lunch (13⁰⁰-14⁰⁰)

<i>20 November</i>	<i>14⁰⁰-18⁰⁰</i>	<i>Building 5, floor 2, room 2-22</i>
<i>Moderators: Torskaya E.V., Zakharov S.M. Scientific secretary: Tsukanov I.Yu.</i>		
14.	HIGH TRIBOLOGICAL PERFORMANCE OF SPHERICAL PARTICLES OF TUNGSTEN DISULFIDE WATER BASED DISPERSION.MWF APPLICATION Diloyan G. Nanotech Industrial Solutions	
15.	MODELING OF SLIDING CONTACT OF INDENTER AND VISCO-ELASTIC COATING Torskaya E.V. Ishlinsky Institute for Problems in Mechanics RAS	
16.	THE NUMERICAL STUDY OF COUPLING BETWEEN ECCENTRICITY AND TILTING OF THE PARTIAL ARC ANNULAR-THRUST AEROSTATIC POROUS JOURNAL BEARING Khan P. Melentiev Energy Systems Research Institute of SB RAS	
17.	THE INVESTIGATION OF TRIBOLOGICAL PROPERTIES OF MULTI WALLED CARBON NANOTUBE (MWCNT) FILLED PP POLYMER COMPOSITES Yetgin Salih Hakan Dumlupinar University	
18.	INFLUENCE OF SURFACE TECHNOLOGICAL PROCESSING ON THE RUNNING-IN PROCESS OF ANTIFRICTION ALLOYS Tsukanov I.Yu. Ishlinsky Institute for Problems in Mechanics RAS	
19.	INVESTIGATION OF THE EFFECTS OF CASTING METHOD ON ALTITUDE COOLING PLATE ON ABRASION CHARACTERISTICS OF A357 ALUMINUM ALLOY WITH TAGUCHI METHOD Yilmaz Hamid Bayburt University	
Coffee break 15⁴⁰-15⁵⁵		
20.	WEAR RESISTANCE OF DECORATIVE COATINGS OBTAINED ON 2024 ALUMINIUM ALLOY BY PLASMA ELECTROLYTIC OXIDATION Vorozhtsova V.V. National University of Science and Technology MISIS	
21.	EXPERIMENTAL INVESTIGATION OF AN ELASTIC CONTACT BETWEEN A LAYERED CYLINDRICAL HOLLOW ROLLER AND FLAT PLATE Solanki Mitulkumar Thakorbhai Sardar Vallabhbhai National Institute of Technology	
22.	MODEL WEAR OF THE MECHANICAL SEAL Izmerov M.A. Bryansk State Technical University	

23.	SIMULATION BY MOLECULAR DYNAMICS OF THE PROCESSES OF EVOLUTION OF CRACKS AND PORES IN THE SURFACE AREA OF THE COATED STEEL IN SLIDING LUBRICATION WITH THE RESOURCE Malenko P.I. Tula State University
24.	INFLUENCE OF TURBULENT REGIME AND NON-NEWTONIAN LUBRICATION BEHAVIOR ON THE PERFORMANCE OF FINITE HYDRODYNAMIC JOURNAL BEARING Soni Sandeep Sardar Vallabhbhai National Institute of Technology
25.	MODELING AND FORECASTING OF THE PROCESS OF WEAR OF THE CUTTER TEETH ON THE THERMOKINETIC APPROACH BASIS Evdokimov D.V. Samara University
26.	REGULARITY OF ENTROPY'S CHANGE OF INFORMING SECONDARY ACTION TRIBOTECHNICAL SYSTEM Ivashyshin G. S. Pskov State University
Discussion	

LUBRICATION AND LUBRICANTS

Language – **Russian**

<i>20 November</i>	<i>9⁰⁰–13⁰⁰</i>	<i>Building 4, floor 3, room 320</i>
<i>Moderators: Ermakov C.F., Parenago O.P. Scientific secretary: Smirnov N.N.</i>		
1.	QUALITY CONTROL OF FUELS AND LUBRICANTS IN RUSSIA Abramov A.N. Technopark «SFCC UAI»	
2.	TRIBOLOGICAL INDICATORS OF COATINGS Albagachiev A.Yu. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)	
3.	ARCTIC MOTOR OILS, OBTAINED BY USING THE FRACTION OF THE LOW POUR-POINT BASE Antonov S.A. Joint Research and Development Center RN-TsIR, Ltd.	
4.	REMODIFIERS OF LUBRICANTS FOR THE HEAVY MODES OF BOUNDARY FRICTION Berdichevsky E.G. Yaroslavl-the-Wise Novgorod State University	
5.	INFLUENCE OF THE COMPOSITION OF THE COTS CONTAINING PHTHALOCYANINE DERIVATIVES, ON THE PROCESS OF FRACTIONING Berezina E.V. Ivanovo State University	

6.	USING THE PRINCIPLES OF IRREVERSIBLE PROCESSES THERMODYNAMICS OF FOR THE BASIC PRINCIPLES FORMATION OF THE LUBRICATING PROPERTIES PREDICTION Boikov D.V. PJSC "Autodiesel"
7.	FEATURES OF THE BEHAVIOR OF FUNCTIONAL ADDITIVES AT THE INTERFACE "METAL-OIL» Boikov D.V. PJSC "Autodiesel"
8.	INVESTIGATION OF RHEOLOGICAL PROPERTIES OF GREASES CONTAINING IN ITS COMPOSITION ANTI-FRICTION ADDITIVES Glyadyaev D. Yu. 25th State Research Institute of Chemmotology the Russian Federation Ministry of Defense
9.	RESEARCH OF ANTIWEAR AND ANTIFRICTION PROPERTIES OF FUELS CONTAINING COMMERCIAL AND EXPERIMENTAL ANTIWEAR ADDITIVES Goryunova A.K. 25th State Research Institute of Chemmotology the Russian Federation Ministry of Defense
Coffee break 10⁴⁵-11⁰⁰	
10.	ANTIFRICTION GREASES Grishin N.N. 25th State Research Institute of Chemmotology the Russian Federation Ministry of Defense
11.	INVESTIGATION OF FRICTION REGIMES OF ELASTIC ROUGH SURFACES FROM THE POSITION OF ELASTOHYDRODYNAMIC THEORY OF LUBRICANT Danilov V.D., Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)
12.	FEATURES OF MODELLING BY THE HYDRODYNAMIC MODE ON AMSLER TYPE FRICTION MACHINE Darovskoy G.V., Rostov State Transport University
13.	INPUT IN OIL ELECTRIC CHARGES AND TRIBOACTIVE Dunaev A.V. Federal Scientific Agroengineering Center VIM
14.	DIELECTRIC PROPERTIES OF PLASTIC LITHIUM LUBRICANTS WITH LIQUID CRYSTALLINE ADDITIVES Elnikova L.V., Institute for Theoretical and Experimental Physics named by A.I. Alikhanov of National Research Centre "Kurchatov Institute"
15.	THE EFFECT OF LUBRICATING COMPOSITIONS ON THE WEAR Emaev I.I. UFA STATE AVIATION TECHNICAL UNIVERSITY (USATU)
16.	INFLUENCE OF STRUCTURE OF DISPERSE PHASE OF GREASES ON THEIR MECHANICAL STABILITY Zhornik V.I. The Joint Institute of Mechanical Engineering of the NAS of Belarus
17.	RESULTS OF THE DEVELOPMENT AND APPLICATION OF CONSERVATION AND POLYFUNCTIONAL OILS «ROSOJL» Kazakov A.M. Technopark «SFCC UAI»

18.	МЕТОД ИССЛЕДОВАНИЯ РЕОЛОГИЧЕСКОЙ СИСТЕМЫ "ДЕФОРМИРУЕМЫЙ МЕТАЛЛ-СМАЗОЧНАЯ СРЕДА" Kanaev A.A. A.N. Frumkin Institute of Physical chemistry and Electrochemistry RAS
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Lunch (13⁰⁰-14⁰⁰)

<i>20 November</i>	<i>14⁰⁰-18⁰⁰</i>	<i>Building 4, floor 3, room 320</i>
<i>Moderators: Lashkhi V.L., Lyubibin I.A. Scientific secretary: Smirnov N.N.</i>		
19.	EVALUATION OF CORROSIVE ACTIVITY AND OXIDATIVE STABILITY OF VEGETABLE OILS Kavaliova I.N. V.A. Belyi Metal-Polymer Research Institute of NAS of Belarus	
20.	THE ASSESSMENT OF THE IMPACT OF LUBRICANT QUALITY ON A WORM-GEAR LIFE Kuleshova E.M. Bauman Moscow State Technical University	
21.	UREATE GREASES SPECIAL PURPOSE Lyadov A.S. A.V.Topchiev Institute of Petrochemical Synthesis, RAS	
22.	INVESTIGATION OF TRIBOLOGICAL PROPERTIES OF TiN-Pb SYSTEM SOLID LUBRICANT COATINGS WITH VARIOUS MORPHOLOGY Lyakhovetskiy M.A. Moscow Aviation Institute (National Research University)	
23.	RESEARCH OF TRIBOLOGICAL EFFICIENCY OF COMPOSITIONS OF ASHLESS DITHIOPHOSPHATES AND DITHIOCARBAMATES IN THE ENVIRONMENT OF HYDROCARBONIC OIL Matveev P.V. 25th State Research Institute of Chemmotology the Russian Federation Ministry of Defense	
24.	RESEARCH OF THE PROPERTIES OF LUBRICANTS WITH ADDITIVES P-N-PROPYLOXYBENZOIC ACID — P-N-PROPYLOXY-P'-CYANOBIHENYL IN CASE OF BOUNDARY FRICTION Novikov V.V. Ivanovo State University	
25.	THE PREPARATION AND TRIBOLOGICAL CHARACTERISTICS OF NICKEL OXIDE AS A METALLOPLAKING ADDITIVE TO LUBRICANTS Ostapenko D.A. Don State Technical University	
26.	JET FUEL LUBRICITY EVALUATION Oreshenkov A.V. 25th State Research Institute of Chemmotology the Russian Federation Ministry of Defense	
27.	PECULIARITIES OF THE INFLUENCE OF ASTRALENES ADDITIVES TO LUBRICATING MATERIALS ON THE EFFICIENCY AND QUALITY INDICES OF THE DETAILS OF FRICTION PAIR OF MACHINES Petrov V.M. Saint-Petersburg State University of Architecture and Civil Engineering	
Coffee break 15⁴⁵-16⁰⁰		

28.	COMPARISON OF TRIBOLOGICAL CHARACTERISTICS OF MAO-COATINGS FORMED ON ALLOYS D16 AND V95 DURING THE TESTS IN ENVIRONMENTAL LUBRICANTS Poches N.S. Gubkin Russian State University Of Oil and Gas
29.	ANTIFRICTIONAL PROPERTIES OF THE DLC COATING WITH AlTiN INTERMEDIATE LAYER IN MODEL LUBRICANTS Samusenko V.D. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)
30.	APPROACHES TO DEVELOPMENT OF NEW CONSTRUCTIVE LUBRICANT MATERIALS AND ANTIFRICTION COATINGS FOR MOVABLE AIRCRAFTS Titov V.V. Public Company "Sukhoi"
31.	RELAXATION OF DESTRUCTION OF LUBRICATING LAYER ON SURFACES RUBBING BODIES DURING SLIDING FRICTION Feizova V.A. Rostov State Transport University
32.	DIAGRAMS OF CONDITION FRICTION MOMENT - COMPOSITION FOR SOME LIQUID LUBRICATION SYSTEMS WITH FRICTION WITH SLIPPER Feizova V.A. Directorate for the repair of rolling stock of JSC Russian Railways is the Russian Federation
33.	THE RESULTS OF EXPERIENCE AND THE COMPARATIVE EVALUATION OF THE EFFICIENCY OF LUBRICANT MATERIAL "ROSOIL-MGP" IN THE TECHNOLOGY OF HOT STEEL MANUFACTURE Kharchenko M.V. Nosov Magnitogorsk State Technical University
34.	ASSESSMENT OF TRIBOTECHNICAL INDICATORS OF INTERFACES TO SOLID LUBRICATING COVERINGS OF VARIOUS STRUCTURES Khopin P.N. Moscow Aviation Institute (National Research University)
35.	TECHNOLOGICAL WATER-SOLUBLE LUBRICANTS CONTAINING A FRACTAL STRUCTURE, WITH THE ADDITION OF NANOCCLUSERS OF NON-FERROUS METALS IN THE PROCESSES OF DRAWING SHEET STEELS Shulga G.I. Platov South-Russian State Polytechnic University (NPI)
36.	INVESTIGATION OF GEOMODIFICATORS FRICTION MECHANISMS ON THE BASIS OF SERPENTINITIES Shcherbakov Yu.I. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)
Discussion	

TRIBOLOGICAL MATERIALS SCIENCE

Language – **Russian**

20 November	9⁰⁰–13⁰⁰	Building 4, floor 1, room 109
<p><i>Moderators: Kuksenova L.I., Shuster L.Sh,</i> <i>Scientific secretary: Misnik P.S.</i></p>		
1.	<p>METHODS FOR STRUCTURE STATE APPRECIATION SURFACE LAYERS AFTER NITRIDING OF STEELS FOR SLIDING FRICTION COUPLS Alekseeva V.S. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)</p>	
2.	<p>STRUCTURE CHANGES OF SURFACE LAYER OF STEEL COUNTERBODY IN DRY SLIDING ELECTRIC CONTACT WITH HIGH CONTACT CURRENT DENSITY Aleutdinova M.I. Institute of Strength Physics and Materials Science Siberian Branch of Russian Academy of Sciences</p>	
3.	<p>TRIBOLOGICAL PROPERTIES OF ZIRCONIA CERAMICS Alisin V.V. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)</p>	
4.	<p>WEAR RESISTANCE OF COATINGS OBTAINED BY GASDYNAMIC SPUTTERING Arkipov V. E. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)</p>	
5.	<p>ALLOY BASED ON NICKEL DEPOSITED FROM CHLORIDE-CITRATE ELECTROLYTE Balakai V.I. Platov South-Russian State Polytechnic University (NPI)</p>	
6.	<p>THE DEPENDENCE OF WEAR RESISTANCE OF COMPOSITE COATINGS BASED ON AN ALLOY OF NICKEL-COBALT FROM ELECTROLYSIS Balakai V.I. Platov South-Russian State Polytechnic University (NPI)</p>	
7.	<p>EVALUATION OF WEAR RESISTANCE OF COATINGS DEPOSITED WITH THE LASER BEAM Biryukov V.P. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)</p>	
8.	<p>OBTAINING COMPOSITE COATINGS BY LASER CLADDING Biryukov V.P. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)</p>	
9.	<p>SYNTHESIS AND ABRASIVE PROPERTIES DIAMOND-CONTAINING MATERIAL WITH CERAMIC MATRIX Bolotov A.N Tver state technical university</p>	
10.	<p>THE LASER TREATMENT INFLUENCE ON THE BEHAVIOR OF TRIBOCONTACT OF THE BUSHING-CONE SYSTEM Vavilin S.A. Samara State Technical University (Samara Polytech)</p>	
Coffee break 10⁴⁵–11⁰⁰		

11.	INCREASE OF WEAR RESISTANCE OF DETAILS OF CUP-TYPE WITH THE FLANGE IN THE GROUND PART BY DIRECT EXTRUSION WITH COUNTERPUNCH Vorontsov A.L. Bauman Moscow State Technical University
12.	INCREASE OF DURABILITY OF HOLLOW DETAILS WITH THE INTERNAL LEDGE BY MEANS OF INTERNAL RADIAL EXTRUSION OF TRUMPET BLANK Vorontsov A.L. Bauman Moscow State Technical University
13.	MOLECULAR ENGINEERING IN TRIBOLOGY Guydar S.M. Russian State Agrarian University – Moscow Timiryazev Agricultural Academy
14.	ADVANCED LINES OF RESEARCHES AND APPLICATIONS OF PLASMA TECHNOLOGIES IN ENGINEERING Glinskiy M.A. AO Alfa Laval Potok
15.	CARDO POLYMERS AS HEAT AND THERMAL RESISTANT ANTIFRICTION MATERIALS AND BINDERS Goroshkov M.V. A.N.Nesmeyanov Institute of Organoelement Compounds of RAS
16.	STUDY OF THE WEAR OF CHROMIUM-ALUMINUM ALLOYS UNDER FRICTION CONDITIONS WITH IMPACT ON THE ABRASIVE SURFACE Grydunov S.S. Bryansk State Technical University
17.	LATERAL THINKING ABOUT WEAR RESISTANCE OF CARBON FILMS Ilyasov V.V. Don State Technical University
18.	ION-PLASMA IMPLANTING, AS THE TECHNOLOGY OF CREATION OF INTERMETALLICS Smirnov G.V. University of Technology
19.	RESTORE WORN SURFACES OF PARTS OF FRICTION UNITS OF TECHNOLOGICAL EQUIPMENT OF POLYMER COMPOSITE MATERIALS Korneev A.A. A.N. Kosygin Russian State University
20.	SURFACE FAILURE OF THE ELASTOMER OBLIQUE IMPACT OF ABRASIVE PARTICLES Kopchenkov V.G. North-Caucasus Federal University
21.	ABRASIVE RESISTANCE OF PRECIPITATION HARDENING ALLOYS ON NICKEL-CHROME AND COPPER-BERYLLIC BASES Kukareko V.A. Joint Institute of Mechanical Engineering of the NAS of Belarus

Lunch (13⁰⁰-14⁰⁰)

20 November	14⁰⁰-18⁰⁰	Building 4, floor 1, room 109
<i>Moderators: Alisin V.V. Krasnov A.P. Scientific secretary: Misnik P.S.</i>		
22.	RAMAN SPECTROSCOPY EVALUATION OF DIAMOND-LIKE CARBON COATINGS Kulakov O.I. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)	
23.	THE TECHNIQUE OF THIN ZNO FILMS SYNTHESIS BY ALD METHOD Kulakov O.I. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)	
24.	ВЛИЯНИЕ НА УСТАЛОСТНУЮ ПРОЧНОСТЬ ЭКСПЛУАТАЦИОННОГО НАГРУЖЕНИЯ МАТЕРИАЛА ЛИТЫХ ДЕТАЛЕЙ ЖЕЛЕЗНОДОРОЖНЫХ КОНСТРУКЦИЙ Lebedinskiy S.G. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)	
25.	SYNTHESIS OF NANOCOMPOSITE COATINGS WITH USE OF THE SYMMETRIC STRUCTURES HAVING THE POLAR STRUCTURE Levchenko V.A. Lomonosov Moscow State University	
26.	FRICTION COMPOSITE MATERIALS BASED ON SYNTHETIC AND ARTIFICIAL FIBERS Leshok A.V. SSI "Powder Metallurgy Institute"	
27.	SINTERED POWDER FRICTION MATERIAL BASED ON COPPER AND FILLED WITH FULLEREN-LIKE GLASSY CARBON Leshok A.V. SSI "Powder Metallurgy Institute"	
28.	HIGH TEMPERATURE SYNTHESIS OF METAL-CERAMIC SELF-LUBRICATING COMPOSITES Lukyanov A. I. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAS)	
29.	TRIBOCHEMISTRY OF EPILAMS Malkin A.I. A.N. Frumkin Institute of Physical chemistry and Electrochemistry RAS	
30.	DEVELOPMENT OF TECHNOLOGICAL METHODS FOR INCREASE OF OPERATIONAL PROPERTIES OF COMPOSITES BASED ON PTFE AND CARBON FIBERS Markova M.A. Institute of Oil and Gas Problems of the Siberian Branch of RAS	
31.	PARAMETRIC AND SPECTRAL EVALUATION OF ROUGHNESS OF THE ELASTOMERS SURFACE EXPOSED TO THE WEAR TESTS Morozov A.V. Ishlinsky Institute for Problems in Mechanics RAS	
Coffee break 15⁴⁵-16⁰⁰		

32.	EVALUATION OF WEAR RESISTANCE OF COPPER AT SLIDING AGAINST TIC BASED COATINGS UNDER LOAD Mukanov S.K. Scientific-educational Center of Self-distributing High-temperature Synthesis MISIS-ISMAN
33.	SUPER LOW FRICTION OF DOPED COMPOSITION Nozhenkov M.V. Joint Stock Company "Moscow Radiotechnical Institute of RAS"
34.	ABRASIVE WEAR RESISTANCE OF TOOL STEEL AFTER LASER HARDENING AND SHORT-TIME TEMPERING Ratkevich G.V. Tver state technical university
35.	TRIBOTECHNICAL PROPERTIES OF HIGHLY FILLED METAL-CERAMIC MATERIALS Sevostyanov N.V. Federal State Unitary Enterprise All-Russian Scientific research Institute of Aviation Materials
36.	MODERN METHODS OF INCREASING WEAR RESISTANCE MACHINES APPLIED IN THE PROCESSES OF FORMATION Serbin V.M. North-Caucasus Federal University
37.	WEAR-RESISTANCE DETERMINATION OF STEEL SAMPLES WITH MINERAL COATINGS IN DRILLING MUD SLIDE Skazochkin A.V. Kaluga Branch of the Russian Presidential Academy of National Economy and Public Administration
38.	A STUDY OF THE IMPACT OF CORUNDUM MICROSPHERES ON TRIBOLOGICAL PROPERTIES OF POLYTETRAFLUOROETHYLENE Fedorov A.L. Institute of Oil and Gas Problems of the Siberian Branch of RAS
39.	TRIBOLOGICAL CHARACTERISTICS OF CERAMIC-METALLIC COMPOSITE MATERIALS WITH WEAR-RESISTANT COATINGS Chertovskikh S.V. Ufa State Aviation Technical University
40.	ADHESION PARAMETERS OF FRICTION OF LARGE-CERTAIN AND ULTRAFINE-GRAINED TITANIUM ALLOY GRADE4 WITH COATINGS IN CONTACT WITH FAST STEEL R6M5 Chertovskikh S.V. Ufa State Aviation Technical University
41.	MODEL OF THE INFLUENCE OF THE SURFACE INCLUSIONS OF THE SOFT PHASE ON THE FRICTION OF ALUMINUM ALLOYS Shpenev A.G. Ishlinsky Institute for Problems in Mechanics RAS
42.	INVESTIGATION OF PROPERTIES AND STUCTURE CHANGES OF OF ALUMINUM ALLOYS AFTER TRIBOLOGICAL TESTS Shcherbakova O.O. Ishlinsky Institute for Problems in Mechanics RAS
Discussion	

FRICTION UNITS

Language – **Russian**

20 November	9⁰⁰–13⁰⁰	Building 4, floor 1, room 112
<p><i>Moderators: Gustov Yu.I., Pamfilov E.A.</i> <i>Scientific secretary: Khasyanova D.U.</i></p>		
1.	<p>COMPARATIVE INFORMATION ABOUT THE INTENSITY OF WEAR OF THE MATERIALS OF FRICTION UNITS IN ABRASIVE AND NONABRASIVE MEDIA Avilkin Yu.M.</p>	
2.	<p>OPTIMAL DESIGN OF «HUB-PLUNGER» FRICTION PAIR WITH MINIMAL WEAR Akhundova P.E. Azerbaijan State University of Economics</p>	
3.	<p>ABOUT PERFORMANCE CRITERIA OF ROLLER-SCREW MECHANISMS Blinov D.S. Bauman Moscow State Technical University</p>	
4.	<p>THERMODYNAMIC CONDITIONS FOR SECURING WEAR RESISTANCE OF HEAT-LOADED FRICTION PAIR "TOOL-DETAIL» Bokov A.I. Don State Technical University</p>	
5.	<p>ASSESSING WOOD-CUTTING TOOLS WEAR Buglaev A.M. Bryansk State Technical University</p>	
6.	<p>TO THE QUESTION OF INFLUENCE OF THE FACTOR OF FRICTION ON EFFICIENCY OF DRILLING OF HORIZONTAL WELLS OF BIG LONGEST Buyanovskiy I.N "Aquatic - drill pipes" Ltd.</p>	
7.	<p>NUANCES IN TRIBOLOGY Voinov K.N. ITMO UNIVERSITY</p>	
8.	<p>DEFORMATION-TOPOGRAPHIC METHOD OF RESEARCH OF TRIBOTECHNICAL INDICATORS OF CONSTRUCTION EQUIPMENT Gustov Yu. I. Moscow State University of Civil Engineering</p>	
9.	<p>ACCELERATING THE COMMERCIALIZATION OF INNOVATION IN THE FIELD OF TRIBOLOGY AND TRIBOTECHNIQUE Zainetdinov R.I. Russian Academy of Railways (RAPS)</p>	
10.	<p>ABOUT THE USE OF LRE TURBOPUMPS SEGMENT SEALS Ivanov A.V. NPO Energomash</p>	
Coffee break 10⁴⁵–11⁰⁰		
11.	<p>EXPERIMENTAL STUDY OF DYNAMIC CHARACTERISTICS OF THE TRIBOLOGICAL INTERACTIONS OF THE MATERIALS OF FRICTION PAIRS Ismailov G. M. Tomsk State Pedagogical University</p>	
12.	<p>STAND FOR RESEARCH OF MATERIAL PROPERTIES AT HIGH TEMPERATURES IN THE CONDITIONS OF FAST HEATING RATES Kolomiytsev I.A., JSC «Kompozit»</p>	

13.	ABOUT DESTRUCTION OF SHOCK-LOADED BEARINGS Korneev S.V. The Siberian State Automobile and Highway University
14.	MINING MACHINES ELEMENTS LONGEVITY ESTIMATION IN CASE OF ABRASIVE WEAR Kritskij D.Y. JSC "SUEK-Krasnoyarsk"
15.	IMPROVEMENT OF TRIBOLOGICAL CALCULATIONS WITH USE OF MEASUREMENTS OF PARAMETERS OF THE SURFACE ON MODERN PROFILOMETERS Kurapov P.A. Joint-Stock Company "MMPP "SALUT"
16.	EXPERIMENTAL IDENTIFICATION OF THE MECHANICAL LOSSES OF THE BEARINGS WITH THE USE OF ADDITIONAL INERTIA Levanova T. S., Mari State University
17.	CIP METHOD OF DETERMINING THE MECHANICAL LOSSES IN FRICTION MOTOR Levanova T. S., Mari State University
18.	INVESTIGATION OF TRIBOLOGICAL PROPERTIES OF TiN-Pb SYSTEM SOLID LUBRICANT COATINGS WITH VARIOUS MORPHOLOGY Lyakhovetskiy M.A. Moscow Aviation Institute
19.	TRIBODIAGNOSTIKA MOTOR CARS ONBOARD CONTROL METHODS Matveevsky V.R. JSC «MMK»
20.	THE RESEARCH OF THE TRIBOTECHNICAL PROPERTIES OF MATERIALS AND COATINGS FOR METAL CUTTING TOOL Migranov M.SH. Ufa State Aviation Technical University
21.	ESTIMATION OF THE INSTABILITY OF THE FRICTION COEFFICIENT OF ROLLED FRICTION-POLYMERIC MATERIALS AT LOW PRESSURES Nosko A.L. Bauman MSTU

Lunch (13⁰⁰-14⁰⁰)

<i>20 November</i>	<i>14⁰⁰-18⁰⁰</i>	<i>Building 4, floor 1, room 112</i>
<i>Moderators: Shapovalov V.V., Nosko A.L. Scientific secretary: Khasyanova D.U.</i>		
22.	THE WEARLESS OPERATION TECHNOLOGY - 15 YEARS APPLICATION RESULTS Novikov V.I. JSC "Venchur-N"	
23.	SCIENCE - THE MAIN PRODUCTIVE FORCE OF THE RUSSIAN ECONOMY - DREAMS OR REALITY Novikov V.I. JSC "Venchur-N"	

24.	INVESTIGATION OF FRICTION INTERACTION OF FRICTION PAIR OF A PIEZOELECTRIC ACTUATORS Padgurskas J. Alexandras Stulginskis University
25.	THE TEST METHODOLOGY IS COMPLEX TRIBOSYSTEM Pamfilov E. A. Bryansk State Technical University
26.	THE EFFECT OF WEAR ON THE ACCUMULATION OF FATIGUE DAMAGE AND INCREASE THE PROBABILITY OF FAILURE OF MECHANICAL SYSTEMS. Petrova I.M. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
27.	FORCE TIGHTENING ESTIMATION OF AVIATION BOLTED JUNCTION Puchkov V.N. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
28.	APPLICATION OF ACOUSTIC EMISSION FOR FINDING AND INVESTIGATING THE TRANSIENT REGIMES OF FRICTION AND WEAR Rastegaev I.A. Togliatti State University
29.	STUDY OF MICROSTRUCTURE AND MICROHARDNESS OF A BIMETAL FLUID-FILM BEARING Rodichev A.Y. Orel State University
30.	THE IMPACT OF TRIBOSYSTEM CHARACTERISTICS ON ECO-ECONOMIC Romanova A.T. Moscow State University of Railway Engineering (MIIT)
31.	EFFECT OF TESTING SCHEME ON WEAR INTENSITY OF ALUMINIUM ALLOY UNDER DRY FRICTION Skorentsev A.L. Institute of Strength Physics and Materials Science of Siberian Branch of Russian Academy of Sciences (ISPMS SB RAS)
Coffee break 15⁴⁵-16⁰⁰	
32.	THE INFLUENCE OF FREQUENCY OF ROTATION WEAR THE PUMPING STAGES OF ESP Smirnov N.I. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
33.	TRIBOTECHNICAL SYSTEMS RELIABILITY CONTROL ON THE DEVELOPMENT STAGE. Sutyagin O.V. Research and innovation center for operational reliability of mechanical systems
34.	DESIGN AND CALCULATION OF FOIL GAS DYNAMIC BEARINGS WITH CENTRAL FOIL FIXATION Sytin A.V. Orel State University
35.	CONDITION MONITORING AND TRIBODIAGNOSTICS OF FRICTION DETAILS OF MAIN REDUCTORS OF MEDIUM AND HEAVY HELICOPTERS Shabalinskaya L.A. Central Institute of Aviation Motors

36.	IMPROVING METAL PLATING WITH THE AIM OF IMPROVING TRACTION CHARACTERISTICS OF LOCOMOTIVES Shapovalov V.V., Rostov State Transport University
37.	THE STUDY OF THE REGULARITIES OF WEAR OF CHAIN SAW MACHINES FORESTRY EQUIPMENT Sheveleva E. V. Bryansk State University of Engineering and Technology
38.	COMPREHENSIVE PERFORMANCE ASSESSMENT AND SYNTHESIS OF CONCEPTS OF THE ADAPTIVE FRICTION CLUTCH WITH AUXILIARY POWER CIRCUIT Shishkarev M. P. Don State Technical University
39.	ANALYSIS OF THE ACCURACY OF TRIGGERING THE ADAPTIVE FRICTION CLUTCHES WITH DIFFERENT FRICTION PAIRS Shishkarev M. P. Don State Technical University
40.	THE ROLE OF HEAT SINK IN THE TEMPERATURE DISTRIBUTION ALONG THE STEEL SHELL-SAMPLE UNDER ELECTRIC CURRENT IN THE CONDITIONS OF DRY SLIPPING AGAINST STEEL E Fadin V.V. Institute of Strength Physics and Materials Science of Siberian Branch of Russian Academy of Sciences (ISPMS SB RAS)
41.	TRIBOANALYSIS AND SYNTHESIS OF MACHINE AS TRIBOSUPERSYSTEM Fedorov S.V. Kaliningrad State Technical University
42.	EXPERIMENTAL DETERMINATION OF DEPENDENCES OF COEFFICIENTS OF FRICTION ON ROTATION FREQUENCY OF THE SHAFT, IN THE DESIGN LIKE "RADIAL BALL-BEARING IN THE RADIAL BALL-BEARING" Chkhetiani P.D. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
Discussion	

FUNDAMENTAL PROBLEMS OF TRIBOLOGY

Language – **Russian**

<i>21 November</i>	<i>9⁰⁰-12³⁰</i>	<i>Building 5, floor 2, room 2-22</i>
<i>Moderators: Akhverdiev K.S., Gaidar S.M.</i>		
<i>Scientific secretary: Kulakov O.I.</i>		
1.	CALCULATED MODELS OF THE HYDRODYNAMIC VISCOELASTIC LUBRICANT WHICH IS FORMED WHEN MELTING THE SURFACE OF THE BEARING PLUG COVERED WITH THE METAL LOW- MELTING COVERING Akhverdiev K.S. Rostov State Transport University	
2.	A NUMERICAL IMPLEMENTAION OF THE UZAWA ALGORITHM FOR THREE-DINENSIONAL CONTACT PROBLEMS WITH FRICTION Bobylev A. A. Lomonosov Moscow State University	
3.	ON THE MECHANISM OF ACTION OF COHESION FORCES IN TRIBOSYSTEMS Borodai A.V. Platov South-Russian State Polytechnic University (NPI)	

4.	ON THE NATURE OF FRICTION BOND Borodai A.V. Platov South-Russian State Polytechnic University (NPI)
5.	DEVELOPMENT OF COMPUTATIONAL MODELS OF HYDRODYNAMIC LUBRICANT FORMED DURING THE MELTING OF THE THRUST BEARING, IN THE PRESENCE OF FORCED COMPRESSIBLE LUBRICANT Vasilenko V. V. Rostov State Transport University
6.	DEVELOPMENT AND ANALYSIS OF THE MODEL DIAGRAM OF INSTRUMENTAL INDENTATION IN THE TRIBOTECHNICAL TOPOCOMPOSITE Voronin N.A. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
7.	MATHEMATICAL MODELING OF FLUID DYNAMICS IN A THIN LAYERS WITH FLUIDS OF COMPLEX RHEOLOGY Kornaev A.V. Orel State University
Coffee brake 10^{30}–10^{45}	
8.	SIMULATION OF THE CONTACT PROBLEM OF THE PNEUMATIC TIRE WITH THE ACCOUNT OF THE PROTECTOR FORM IN THE ABAQUS SOFTWARE COMPLEX Korolev P.V. Ivanovo State Power University
9.	CONTACT CHARACTERISTICS FOR ELASTIC PLASTIC LOADING AND FOLLOWING UNLOADING OF THE JOINTS OF ROUGH SURFACES Ogar P.M. Bratsk State University
10.	THE ROLE OF CONTACT CHARACTERISTICS IN ENSURING THE TIGHTNESS OF METAL-POLYMER JOINTS Ogar P.M. Bratsk State University
11.	THE ESTIMATED MODEL ELASTODEFORMED THRUST BEARING BASED ON THE DEPENDENCE OF ELECTRICAL CONDUCTIVITY OF THE LUBRICANT VISCOSITY AND PERMEABILITY OF THE POROUS LAYER FROM THE PRESSURE Opatskih A.N. Rostov State Transport University
12.	RESEARCH OF MAGNETIC INDUCTION EFFECTS AT TECHNOLOGICAL MANAGEMENT OF WEAR RESISTANCE OF STALYA Pyrikov P. Bryansk State Technical University
13.	FINITE ELEMENT MODELING OF ELASTIC HYDRODYNAMIC PROBLEMS FOR CYLINDRICAL JOURNAL BEARINGS Rybkin N.N. LLC “Medical computer systems”
14.	CONTACT PROBLEMS FOR ELASTIC LAYER Usov P. P. National Research University of Electronic Technology
15.	INDENTATION OF SPHERICAL INDENTER INTO VISCOELASTIC HALF-SPACE Yakovenko A. A. Moscow Institute of Physics and Technology (State University)
Discussion	

NANOTRIBOLOGY

Language - **Russian**

<i>21 November</i>	<i>9⁰⁰-12³⁰</i>	<i>Conference hall</i>
<p><i>Moderators: Stolyarov V.V., Zadoshenko E.D.</i> <i>Scientific secretary: Samusenko V.D.</i></p>		
1.	<p>BASED LUBRICANT DISPERSION OF NANOPARTICLES OF ALUMINOSILICATES FOR HIGH-SPEED RAIL TRANSPORT Alisin V.V. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)</p>	
2.	<p>TRIBOLOGICAL PROPERTIES OF PLASTIC LUBRICANTS WITH NANOSTRUCTURAL ADDITIVES Berezina E.V. Ivanovo State University</p>	
3.	<p>TRIBOLOGICAL OPPORTUNITIES OF FRICTION PAIR BRASS-STEEL IN AQUEOUS SOLUTIONS OF ORGANIC ACIDS Drogan E.G. Don State Technical University</p>	
4.	<p>TRIBOTECHNICAL PROPERTIES OF GREASE WITH NANOMODIFIERS OF FRICTION Zadoshenko E.G. Don State Technical University</p>	
5.	<p>ON NANOROUGHNESS PARAMETERS AND SOME CORRELATIONS Izmailov V.V. ФГБОУ ВО Тверской государственный технический университет</p>	
6.	<p>THE RESEARCH OF STRUCTURAL-PHASE CHANGES OF NANOSTRUCTURAL COMPOUND COATINGS Migranov M.SH. UFA STATE AVIATION TECHNICAL UNIVERSITY (USATU)</p>	
7.	<p>TRIBOLOGICAL OPPORTUNITIES OF GOLD NANOCCLUSERS IN THE LUBRICANTS COMPOSITION Kuzharov A.A. Don State Technical University</p>	
Coffee break 10³⁰-10⁴⁵		
8.	<p>TRIBOLOGICAL PROPERTIES OF METAL SULPHIDES NANOPARTICLES Parenago O.P. A.V.Topchiev Institute of Petrochemical Synthesis, RAS (TIPS RAS)</p>	
9.	<p>LASER SURFACE TEXTURING TO IMPROVE TRIBOLOGICAL PROPERTIES OF DIAMOND-LIKE NANOCOMPOSITE FILMS Pimenov S.M. Prokhorov General Physics Institute of the Russian Academy of Sciences, Moscow, Russia</p>	
10.	<p>A STUDY OF THE TRIBOLOGICAL AND STRENGTH PROPERTIES OF NEW NANOSTRUCTURED CERAMICS ON THE BASIS OF BADDELEYITE IN MICRO - AND NANOSCALE Pirozhkova T. S., Tambov State University</p>	
11.	<p>FEATURES OF TRIBOLOGICAL PROPERTIES IN NANOSTRUCTURE MATERIALS Stolyarov V.V. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)</p>	

12.	TRIBOCONTACT EVOLUTION REGULARITIES. NANO-STRUCTURAL MODEL FOR FRICTION CONTACT Fedorov S.V. Kaliningrad State Technical University
13.	PROPERTIES OF MATERIAL AND SUB-ROUGHNESS FRICTION SURFACE Shalygin M.G. Bryansk State Technical University
14.	INFLUENCE OF CARBON NANOPARTICLES OF VARIOUS NATURE ON RHEOLOGICAL PROPERTIES OF PLASTIC LUBRICANTS Shilov M.A. Ivanovo State Power University
15.	MODERN APPROACHES TO NANOMECHANICAL AND RHEOLOGICAL TESTS: EXPERIENCE OF KLA-TENCOR AND TA INSTRUMENTS Neudachina V.S., INTERTECH Corporation Moscow representative office
Discussion	

METAL WORKING

Language – Russian

<i>21 November</i>	<i>9⁰⁰-12³⁰</i>	<i>Building 4, floor 3, room 320</i>
<i>Moderators: Godlevskiy V.A., Berdichevskiy E.G, Scientific secretary: Khasyanova D.U.</i>		
1.	CALCULATION-EXPERIMENTAL METHOD FOR SELECTING OPTIMAL REGIME WHILE TURNING Aliev M.M. Don State Technical University	
2.	STUDY OF THE INFLUENCE OF THE FRICTION FORCE TO LIMIT THE DEGREE OF DEFORMATION AND STRAIN DRAWN BLANKS FROM ALLOY AI-31 Botkin A.V. Technopark «SFCC UAI»	
3.	OPERATIONAL RUN - FINAL STAGE OF BURNISHING THE SURFACE LAYERS OF PARTS OF MECHANICAL SYSTEMS Golubev A.P. Technological University	
4.	CONTROL OF THE ROLLING PROCESS ON A MULTI-STAND ROLLING MILL Malafeev S.I. LLC United Energy Company	
5.	TO THE QUESTION OF ASSESSING THE RELATIVE WEAR OF TOOL CUTTING MATERIALS BASED ON THE CHARACTERISTICS OF THE STRUCTURE Moiseev D.V. Don State Technical University	
6.	CALCULATION OF THE KINETICS OF THE FILMS FORMATION FOR LUBRICATION WHEN CUTTING STEEL IN A CONTROLLED ATMOSPHERE Novikov V. V. Ivanovo State University	
7.	INFLUENCE OF TSM ON TEMPERATURE WHEN THE TOOL IS BROUGHTED BY ELBOR CIRCLES OF DIFFERENT GRAIN Panayoti V.A. Russian Technological University MIREA	

Coffee break 10³⁰–10⁴⁵	
8.	RESEARCH AND INDUSTRIAL TESTS OF LUBRICANTS FOR DRAWING COPPER AND ALUMINUM WIRE Puzyrkov D.F. Technopark «SFCC UAI»
9.	THEORETICAL ESTIMATION OF THE CONTRIBUTION OF OXIDATIVE REACTIONS IN THE WEAR OF THE CUTTING SYSTEM Ryzhkin A.A. Don State Technical University
10.	DETERMINATION OF COOLING EMULSION FOR METAL WORKING PROCESSES Tyulenev D.G. Technopark «SFCC UAI»
11.	INCREASE OF PRODUCTION EFFICIENCY OF CUP-TYPE DETAILS WITH THE CONIC GROUND PART BY MEANS OF COMBINED EXTRUSION Tyalina D.A. Bauman MSTU
12.	THE FEATURES OF THE FRICTION PROCESS IN THE BREAKING PROCESS OF DETAILS FROM NITINOL Khasyanova D.U. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
13.	TRIBOLOGICAL CHARACTERISTIC OF PERSPECTIVE COOLANT-CUTTING FLUID FOR METAL CUTTING Chkhetiani P.D. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
14.	ON THE RELATION OF STRUCTURAL AND TRIBOLOGICAL CHARACTERISTICS OF HIGH SPEED STEELS IN CONDITIONS OF FRICTION WITHOUT LUBRICANT Shuchev C.G. Don State Technical University
Discussion	

TRIBOLOGICAL MATERIAL SCIENCE

Language – **Russian**

<i>21 November</i>	<i>9⁰⁰–12³⁰</i>	<i>Building 4, floor 1, room 109</i>
<i>Moderators: Lobova T.A., Biryukov V.P. Scientific secretary: Misnik P.S.</i>		
1.	INFLUENCE OF TYPE OF CERAMIC PARTICLES ON FRICTION PROPERTIES OF GAS DYNAMIC COATING ON AMg6/C60 BASIS Aborkin A.V. Vladimir State University	
2.	EXPERIENCE OF USING A WEAR-RESISTANT ORGANOPLASTIC OXAPHENE IN HEAVY OPERATION CONDITIONS Buyaev D.I. LLC “OVITEC”	

3.	DEVELOPMENT AND INVESTIGATION OF MECHANICAL AND TRIBOLOGICAL PROPERTIES OF COMPOSITES ON THE BASIS OF THERMAL-RESISTANT POLYMERS AND DIFFERENTIAL FILLERS Danilov V.D. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
4.	DEVELOPMENT OF TECHNOLOGICAL RECOMMENDATIONS TO IMPROVE THE WEAR RESISTANCE OF THE PLUNGER AXIAL PLUNGER PUMPS OF ION-PLASMA COATING Komadina A. S. GUBKIN RUSSIAN STATE UNIVERSITY OF OIL AND GAS
5.	DETERMINATION OF ADHESION STRENGTH OF THIN COATINGS BY THE INSTRUMENTED INDENTATION TEST Kravchuk K.S. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
6.	THE EFFECT OF SECONDARY STRUCTURES ON WEAR RESISTANCE OF STEEL COUNTERBODY OPERATING WITH EXPERIMENTAL ALUMINUM ALLOYS FOR SLIDE BEARINGS. Kuznetsova E.V. MOSCOW STATE UNIVERSITY OF TECHNOLOGY "STANKIN"
7.	THE EFFECT OF MICROSTRESSES AND THE GRAIN SIZE OF THE BASE SURFACE ON THE FORMATION OF THE STRUCTURE AND THE TRIBOLOGICAL PROPERTIES OF THE COATINGS OF MOLYBDENUM DISELENIDE (MoSe ₂) Lobova T.A. National University of Science and Technology MISIS
Coffee break 10³⁰–10⁴⁵	
8.	FRICITION OF CROSS-LINKED PHENOL FORMALDEHYDE POLYMER Panova M.O. A.N.Nesmeyanov Institute of Organoelement Compounds of Russian Academy of Sciences (INEOS RAS)
9.	MECHANISMS OF OBTAINING SECONDARY STRUCTURES ON FRICTION SURFACE OF EXPERIMENTAL ALUMINUM ALLOYS FOR MONOMETALLIC SLIDE BEARINGS Podrabinnik P.A. MOSCOW STATE UNIVERSITY OF TECHNOLOGY "STANKIN"
10.	THE EFFECT OF TEMPERATURE ON COEFFICIENT OF FRICTION OF CARBON-CARBON MATERIAL AT SLIDING ON STEEL Roshchin M. N. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
11.	ВЛИЯНИЕ СТЕПЕНИ ЛАЗЕРНОГО ДИСКРЕТНОГО УПРОЧНЕНИЯ СТАЛЕЙ И СПЛАВОВ НА ИЗНОСОСТОЙКОСТЬ ПОВЕРХНОСТИ Tarasova T.V. MOSCOW STATE UNIVERSITY OF TECHNOLOGY "STANKIN"
12.	WEAR RESISTANCE OF MATERIALS MANUFACTURED BY ADDITIVE PRODUCTION METHODS Tarasova T.V. MOSCOW STATE UNIVERSITY OF TECHNOLOGY "STANKIN"

13.	DIAMOND-LIKE COATING FOR FUEL DETAIL PARTS HARDENING AND RENOVATION Topolyansky P.A. Plasmacentre Ltd
14.	REINFORCING OF THREADED SURFACES OF THE DENTAL IMPLANTS AND ABUTMENT SCREWS Topolyansky P.A. Plasmacentre Ltd
Discussion	

FRICTION UNITS

Language – **Russian**

<i>21 November</i>	<i>9⁰⁰–12³⁰</i>	<i>Building 4, floor 1, room 112</i>
<i>Moderators: Sholom V.Yu., Luzhnov Yu.M. Scientific secretary: Tsukanov I.Yu.</i>		
1.	THERMODYNAMIC AND KINETIC ASPECTS OF PHYSICAL-CHEMICAL PROCESSES IN THE FRICTION CONTACT ZONE Boiko M.V. ROSTOV STATE TRANSPORT UNIVERSITY	
2.	THE WORK OF THE FRICTION FORCES ON THE ENDS OF THE ROLLERS OF THE BEARIN Egorov I.M. Peter the Great St. Petersburg Polytechnic University	
3.	THE INFLUENCE OF THE INDEX OF COMPATIBILITY OF THE FRICTION SURFACES FOR WEAR IN HIP ARTHROPLASTY Amaev I. I. UFA STATE AVIATION TECHNICAL UNIVERSITY (USATU)	
4.	TECHNIQUES OF CALCULATED ASSESSMENT OF SERVICEABILITY TRIBOUZLOV ON THE SYSTEM OF CRITERIA OF INTERACTION AND DAMAGE OF SURFACES Zernin M.V. Bryansk State Technical University	
5.	PROBLEMS OF REMOVING THE ICE COATING ON RAILWAYS IN CONDITIONS OF ARCTIC AND CONTINENTAL SHELF Keropyan A.M. National University of Science and Technology MISIS	
6.	ANALYSIS OF THE RESISTANCE MOMENT IN OSCILLATIONS IN THE ELECTROMECHANICAL SYSTEM Kopeykin A.I. Vladimir State University	
7.	THE PROBLEM OF HEAVY WEAR OF WHEELS AND RAILS, THE REAL AND EFFECTIVE POSSIBILITIES OF THEIR SOLUTIONS Luzhnov Y.M. JSC VNIIZhT (Railway Research Institute)	
Coffee break 10³⁰–10⁴⁵		
8.	TRIBODIAGNOSTICS AND VIBRODIAGNOSTICS OF FARM MACHINERY FLEET Ovchinnikova M.S. Federal scientific agroengineering center VIM	

9.	THE ACCOUNT OF FRICTION FORCES IN KINEMATIC PAIRS OF MECHANISMS WHEN EVALUATING THEIR PERFORMANCE Pravotorova E.A. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
10.	INFLUENCE OF ALLOYING ELEMENTS AND CONTACT TEMPERATURES ON A RANGE OF WORKING LOADINGS OF PAIRS FRICTION POLYMER Sedakova E.B. Institute for Problems in Mechanical Engineering of the Russian Academy of Sciences (IPME RAS)
11.	IMPROVING THE EFFICIENCY OF LOCOMOTIVES BY CREATING AND IMPROVING METHODS OF METALLOCLADDING Kharlamov P. V. Rostov State Transport University
12.	THE STUDY OF THE CONTROL UNIT FOR AUTOMATIC BALANCING SYSTEMS WITH PULSED SOURCES OF ENERGY Shatalov L.N. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)
13.	ABOUT ONE POSSIBILITY TO CONTROL FRICTION IN FRICTION PAIR Sharts A.A. Moscow State University of Technology "STANKIN"
14.	FATIGUE TESTS OF STEEL ROPES PROVOCHNYH Sholom V. Yu. Technopark «SFCC UAI»
Discussion	

PLENARY SESSION

Language – **Russian**

<i>21 November</i>	<i>13³⁰-15³⁰</i>	<i>Conference hall</i>
<i>Moderators: Grigoriev A.Ya., Fedorov S.V. Scientific secretary: Samusenko V.D.</i>		
1.	NEW CALCULUS-EXPERIMENTAL METHOD OF COMPUTATION OF THE ELASTIC MODULE OF COATING OF THE TOPOCOMPOSITE BY USING MODEL DIAGRAM OF INDENTATION Voronin N.A. Mechanical Engineering Research Institute of the Russian Academy of Sciences (IMASH RAN)	
2.	STRUCTURE AND MECHANICAL PROPERTIES OF THE BOUNDARY LAYERS OF VEGETABLE OILS Grigoriev A.Ya. V.A. BELYI METAL-POLYMER RESEARCH INSTITUTE OF NATIONAL ACADEMY OF SCIENCES OF BELARUS B	
3.	TRIBOLOGICAL PROPERTIES OF ENVIRONMENTALLY FRIENDLY LUBRICANTS BASED ON VEGETABLE OILS Ermakov S.F. V.A. BELYI METAL-POLYMER RESEARCH INSTITUTE OF NATIONAL ACADEMY OF SCIENCES OF BELARUS	

4.	THE STUDYING OF INFLUENCE OF SOME ORGANIC COMPOUNDS ON THE PROCESS OF ANTI-FRICTION FILM FORMATION IN A PRESENCE OF BIODEGRADABLE LUBRICANTS Kolesnikov I.V. Rostov State Transport University
5.	LUBRICANTS IN MECHANICAL ENGINEERING, MODERNITY AND TREND Tsvetkov O.N. A.V.Topchiev Institute of Petrochemical Synthesis, RAS (TIPS RAS)
6.	A COMPREHENSIVE INDEX OF ENVIRONMENTAL UNITS OF THE TRANSPORT - TECHNOLOGICAL COMPLEX Shulga G.I. Platov South-Russian State Polytechnic University (NPI)

ROUND TABLE MEETING

Language – **Russian**

<i>21 November</i>	<i>15³⁰-16³⁰</i>	<i>Conference hall</i>
<i>Moderators: Ermakov S.F. Scientific secretary: Samusenko V.D.</i>		
ECOLOGICAL PROBLEMS OF TRIBOLOGY		

FINAL SESSION

<i>21 November</i>	<i>16³⁰-17⁰⁰</i>	<i>Conference hall</i>
<i>Moderators: Glazunov V.A. Goryacheva I.G. Scientific secretary: Tsukanov I.Yu.</i>		
GENERAL DISCUSSION CONCLUSION OF THE CONFERENCE CONFERENCE CLOSING		