

Russian Academy of Sciences

Agenda

15th International Workshop on Magneto-Plasma Aerodynamics

April 19-21, 2016

Organized by

Joint Institute for High Temperatures of Russian Academy of Sciences
Moscow, Russia

Sponsored by

Russian Academy of Sciences
Russian Foundation for Basic Research

April 19 (Tuesday)

Opening

Session 1. MAGNETOPLASMA AERODYNAMICS

Session 2. PLASMA AERODYNAMICS IN SUBSONIC FLOW

Session 3. PLASMA AERODYNAMICS IN SUPERSONIC FLOW

Session 4. PA STABILITY & ACOUSTIC

Session 5. APPLICATION PROBLEMS-1

April 20 (Wednesday)

Session 6. ELECTRICAL DISCHARGE IN GAS - 1

Session 7. ELECTRICAL DISCHARGE IN GAS - 2

Session 8. APPLICATION PROBLEMS - 2

Session 9. ELECTRICAL DISCHARGE IN LIQUID - 1

Session 10. SHOCK WAVES

Session 11. ELECTRICAL DISCHARGE IN LIQUID - 2

Session 12. PLASMA CHEMISTRY

April 21 (Thursday)

Session 13. APPLICATION PROBLEMS - 3

Session 14. RELATED PROBLEMS - 1

Session 15. COMBUSTION

Session 16. RELATED PROBLEMS - 2

POSTER SESSION 17

Round Table

Closing

April 19 (Tuesday)

09:00-10:00	REGISTRATION
09:30-9:40	OPENING, Valentin Bityurin
9:40-11:00	SESSION 1. MAGNETOPLASMA AERODYNAMICS Chairman Eduard Son
9:40-10:00	1.1 Dynamics and Heat Release Effects in Magnetoplasma Aerodynamics, V.A. Bityurin (JIHT RAS, Moscow, Russia)
10:00-10:20	1.2 Study of Transient Plasma Impact on Corner Separation in M=4.5 Airflow, B. Hedlund ¹ , A. Houpt ¹ , S. Gordeyev ¹ , and S. Leonov ^{1,2} (¹ University of Notre Dame, USA, ² JIHT RAS, Moscow, Russia)
10:20-10:40	1.3 On a Problem of the Spontaneous Reconnection in the Magnetosphere Geomagnetic Tail, E.V. Gubanov, A.P. Likhachev*, and S.A. Medin (JIHT RAS, Moscow, Russia)
10:40-11:00	1.4 Dynamic Stall Control by NS Plasma Actuators, Andrey Starikovskiy, Richard Miles (Princeton University, Princeton, USA)
11:00-11:30	COFFEE BREAK
11:30-13:10	SESSION 2. PLASMA AERODYNAMICS IN SUBSONIC FLOW Chairman Svetlana Starikovskaya
11:30-11:50	2.1 Dielectric Barrier Discharge Microscale Vortex Generators, I.A. Moralev, V.A. Bityurin, V.N. Sherbakova, A.A. Firsov (JIHT RAS, Moscow, Russia)
11:50-12:10	2.2 Parametrical Numerical Simulation of DBD-Actuator Influence on Duct Flow, D.E. Pudovikov, P.A. Semenev, P.D. Toktaliev (CIAM, Moscow, Russia)
12:10-12:30	2.3 Influence of the Electrical Parameters of the Actuator on Thrust of Synthetic Jet Produced by a Dielectric Barrier Discharge, V.M. Bocharnikov ^{1,2} , V.V. Volodin ¹ , V.V. Golub ¹ (¹ JIHT RAS, Moscow, ² MIPT, Dolgoprudny, Russia)
12:30-12:50	2.4 Flow Around Circular Cylinder Induced by Arc Discharge Rotating in Magnetic Field, D.S. Munhoz ¹ , V.A. Bityurin ¹ , I.P. Zavershinsky ³ , A.I. Klimov ¹ , N.E. Molevich ^{2,3} , I.A. Moralev ¹ , L.A. Polyakov ¹ , D.P. Porfirev ^{2,3} , S.S. Sugak ³ (¹ JIHT RAS, Moscow, ² LPI RAS, ³ SSAU, Samara, Russia)
12:50-13:10	2.5 Soliton Gas-Plasma Vortex Structures in Swirl Argon Flow in the Presence of HF Discharge, A.O. Gorbunova ^{1,3} , I.P. Zavershinskii ¹ , A.I. Klimov ² , N.E. Molevich ^{1,3} , S.S. Sugak ¹ , (¹ SSAU, Samara, JIHT RAS, Moscow, ³ LPI RAS, Samara, Russia)
13:10-14:00	LUNCH

14:00-15:40	SESSION 3. PLASMA AERODYNAMICS IN SUPERSONIC FLOW Chairman Alexey Bocharov
14:00-14:20	3.1 Interaction of Blunt Bodies with Gas Bubbles Localized in Supersonic Upstream Flow , P. Georgievskiy, V. Levin, O. Sutyurin (<i>Institute of Mechanics, MSU, Moscow, Russia</i>)
14:20-14:40	3.2 Study of the Drag Force of the Blunt Body in Supersonic Flow with Local Energy Deposition , A.G. Karpenko, V.A. Lashkov, I.C. Mashek and R.S. Khoronzhuk (<i>SPBU, St Petersburg, Russia</i>)
14:40-15:00	3.3 The Influence of the Energy Sources on the Flow Around Aircraft Models , A.E. Lutsky, Ya.V. Khankhasaeva (<i>Keldysh Institute of Applied Mathematics RAS, Moscow, Russia</i>)
15:00-15:20	3.4 Control of Unsteady Triple Configurations in Problems of High Speed Flows of Gaseous Media past AD Bodies with External Energy Deposition , O.A. Azarova ¹ , L.G. Gvozdeva ² (<i>¹CC FRC "Computer Sciences and Control" RAS, ²JIHT RAS, Moscow, Russia</i>)
15:20-15:40	3.5 Energy Input Influence on the Flow in Ramjet Inlet , V.E. Borisov, A.E. Lutsky (<i>Keldysh Institute of Applied Mathematics, Moscow, Russia</i>)
15:40-16:10	COFFEE BREAK

16:10-17:50	SESSION 4 PA STABILITY & ACOUSTIC Chairman Pavel Georgievsky	SESSION 5. APPLICATION PROBLEMS-1 Chairman Andrey Khandurin
16:10-16:30	4.1 Development of the Instability Waves Diagnostics Technique in Free Subsonic Turbulent Jet with Respect in the Context of Jet Noise Control , G.A. Faranosov ^{1,2} , V.F. Kopiev ^{1,2} , S.A. Chernyshev ¹ (¹ TsAGI, Zhoukovsky, Russia, ² LPI RAS, Moscow, Russia)	5.1 Investigation of Stationary and Pulsating Flows of Ionizing Gas in the Channel of the Plasma Accelerator , A.N. Kozlov ^{1,2} , V.S. Konovalov ¹ (¹ Keldysh IAM RAS, ² MSU, Mechanical and mathematical faculty, Moscow, Russia)
16:30-16:50	4.2 Acoustic Spectrum of a Cylindrical Vortex in a Viscous Heat-Conducting Gas , T.A. Petrova, F.V. Shugaev (MSU, Faculty of Physics, Moscow, Russia)	5.2 Optimization of TsAGI MHD Accelerator Operation Mode for TPS Experimental Tests , V.A. Bityurin, P.P. Ivanov (JIHT RAS, Moscow, Russia)
16:50-17:10	4.3 Nonlinear Dynamics of Laminar-Turbulent Transition in the Generalized 3D Kolmogorov Problem for the Incompressible Viscous Fluid at Symmetric Solution Subset , N.M. Evstigneev (FRC IC RAS, Moscow, Russia)	5.3 Solution to a Conjugate Heat Transfer Problem on the Surface of Hypersonic Vehicle of Arbitrary Shape , A.N. Bocharov ¹ , V.A. Bityurin ¹ , N.N. Golovin ² , N.M. Evstigneev ¹ , V.P. Petrovskiy ¹ , O.I. Ryabkov ¹ , I.O. Teplyakov ¹ , A.A. Shustov ² (¹ JIHT RAS, ² Open Joint Stock Company "Corporation Moscow Institute of Heat Technology", Moscow, Russia)
17:10-17:30	4.4 Mitigation of Flow-Induced Sound for Circular Cylinder by HF DBD Plasma Actuator , M.Yu. Zaitsev ¹ , P.N. Kazansky ² , V.I.A. Kopiev ¹ , I.A. Moralev ² (¹ TsAGI, Moscow Region, ² JIHT RAS, Moscow, Russia)	5.4 Numerical Simulation of Discharge with Hollow Cathode Heated in a Stream of Xenon for Stationary Plasma Thruster , E.V. Demidov, S.I. Eliseev, A.A. Kudryavtsev (SPBU, Saint-Petersburg, Russia)
17:30-17:50	4.5 On the Influence of the Component Composition on Gas Dynamics of the Pulsed Plasma Jet , A.S. Pashchina (JIHT RAS, Moscow, Russia)	5.5 Experimental and Theoretical Study of MHD Interaction at Flat Plate in Supersonic Flow , V.A. Bityurin ¹ , A.N. Bocharov ¹ , S.S. Bychkov ¹ , D.S. Baranov ¹ , V.A. Grushin ¹ , E.V. Kusmartseva ¹ , N.V. Tretyakova ¹ , N.G. Zhurkin ² , A.S. Boushmin ² , A.V. Khandyrin ² (¹ JIHT RAS, Moscow, ² TsAGI, Moscow Region, Russia)
11:00-18:00	POSTER SESSION 17	

April 20 (Wednesday)

09:15-10:00	REGISTRATION
09:30-11:10	SESSION 6. ELECTRICAL DISCHARGE IN GAS - 1 Chairman George Naidis
09:30-09:50	6.1 Studying the Reason of Streamer Stopping in the Surface Dielectric Barrier Discharge , S.I. Sergeev, V.R.Soloviev (<i>MIPT, Dolgoprudny Moscow Region, Russia</i>)
09:50-10:10	6.2 Development of the Surface Dielectric Barrier Discharge Driven by Negative Voltage Pulse , V.R. Soloviev, V.M. Krivtsov (<i>MIPT, Dolgoprudny, Moscow Region, Russia</i>)
10:10-10:30	6.3 Fluid and Hybrid Modelling of Nanosecond Surface Discharges: Effect of Polarity and Secondary Electrons Emission , N.Yu. Babaeva, D.V. Tereshonok and G.V. Naidis (<i>JIHT RAS, Moscow, Russia</i>)
10:30-10:50	6.4 High-voltage Nanosecond Surface Dielectric Barrier Discharges at High Pressures: Physics and Applications , Y. Zhu ¹ , N.A. Popov ² , S.A. Shcherbanev ¹ , S.A. Stepanyan ¹ , S.M. Starikovskaia ¹ (<i>LPP Ecole Polytechnique, Palaiseau, Paris, France, Skobeltsyn Institute of Nuclear Physics, MSU, Moscow, Russia</i>)
10:50-11:10	6.5 The Model of the Formation and Self-organization of the Constricted Channels in Surface DBD , <u>I.A. Moralev</u> , A.Yu. Boytsov, I.V. Selivonin, V.A. Bityurin (<i>JIHT RAS, Moscow, Russia</i>)
11:10-11:40	COFFEE BREAK

11:40-13:00	SESSION 7. ELECTRICAL DISCHARGE IN GAS - 2 Chairman Victor Soloviev	SESSION 8. APPLICATION PROBLEMS - 2 Chairman Stanislav Medin
11:40-12:00	7.1 Research of the Influence of Barrier Material and Distance Between Electrodes on the Emission Spectrum of the Surface Discharge , A.V Lazukin ¹ , D.I Kavyrshin ² , S.A Krivov ¹ and S.D Fedorovich ¹ (¹ MPEI, ² JIHT RAS, Moscow, Russia)	8.1 Study of MHD Actuator Effects on Gasdynamics Characteristics of Airfoil in Subsonic Airflow , V. Ivchin ¹ , Yu. Esaulov ¹ , I. Borisov ¹ , M. Myasnikov ¹ , V. Bityurin ² , A. Bocharov ² , I. Moralev ² , P. Kazansky ² (¹ Moscow Helicopter Plant Mil ML, ² JIHT RAS, Moscow, Russia)
12:00-12:20	7.2 Action of Airflow on Dynamics of Discharge Flame in Negative Corona Discharge , A.A. Petrov ^{1,2} , N.V. Pestovskii ^{1,2} , S.Yu. Savinov ^{1,2} (¹ LPI RAS, Moscow, ² MIPT, Dolgoprudny, Moscow region, Russia)	8.2 The Use of High-Frequency Plasma Torches for the Synthesis of Nanostructured Materials and Coatings , <u>A.V. Krasilnikov</u> , G.N. Zalogin (<i>TsNIIMash, Korolev, Moscow region, Russia</i>)
12:20-12:40	7.3 Discharge position control by magnetic field in supersonic flow , Firsov A.A. ¹ , Yarrantsev D.A. ¹ , Leonov S.B. ^{1,2} (¹ JIHT RAS, Moscow, Russia, ² University of Notre Dame, Indiana, USA)	8.3 Al-H₂ MHD Generator Creating an Emergency Power , V.A. Bityurin, P.P. Ivanov, V.I. Miroshnichenko (<i>JIHT RAS, Moscow, Russia</i>)
12:40-13.00	7.4 Testing of spark based plasma actuator for buffet control , Firsov A.A. ¹ , Isaenkov Yu. I. ¹ , Shurupov M. A. ¹ , Leonov S.B. ^{1,3} , Soudakov V.G. ² (¹ JIHT, Moscow, ² TsAGI, Zhukovsky, Russia, ³ University of Notre Dame, Indiana, USA)	8.4 Direct Microbiological Transformation of Chemical Energy to Electrical , A.V. Mitin ^{1,2,3} (¹ MSU, Chemical Department, ² JIHT RAS, Moscow, ³ MIPT, Dolgoprudny, Moscow region, Russia)
13:00-14:00	LUNCH	

14:00-15:40	SESSION 9 ELECTRICAL DISCHARGE IN LIQUID - 1 Chairman Nikolay Popov	SESSION 10. SHOCK WAVES Chairman Victor Golub
14:00-14:20	9.1 Modeling of Discharges in Hydrocarbon Liquids , G.V. Naidis (JIHT RAS, Moscow, Russia)	10.1 Shock Wave Interaction with the Glow Discharge , S.V. Bobashev ^{1,2} , I.V. Basargin ¹ , A.S. Baryshnikov ¹ , N.A. Monahov ¹ , P.A. Popov ^{1,2} , V.A. Sakharov ¹ , M.V. Chistyakova ¹ (¹ Ioffe Insitute, ² Peter the Great S-Petersburg Polytechnic University, Saint-Petersburg, Russia)
14:20-14:40	9.2 Streamer Evolution in Deformed Bubbles with High Aspect Ratio: Shape and Volume Effect , N.Yu. Babaeva, D.V. Tereshonok, G.V. Naidis and B.M. Smirnov (JIHT RAS, Moscow, Russia)	10.2 Plasma and Shock-Wave Processes at the Localization of Pulse Discharge , I. Doroshchenko, I. Ivanov, I. Znamenskaya (MSU, Faculty of Physics, Moscow, Russia)
14:40-15:00	9.3 Propagation of Surface Streamers on Small and Deep Water , Yu. Akishev ^{1,2} , V. Karalnik ¹ , A. Petryakov ¹ , N. Trushkin ¹ (¹ SC SRC RF TRINITI, , Troitsk, Moscow Region, ² MEPhI, Moscow, Russia)	10.3 Dynamics of Shock Waves in Stratified Layers. Whitham Method. Other Approaches , A.N. Bogdanov (MSU, Moscow, Russia)
15:00-15:20	9.4 Discharge in Water in the Pin-Flat Electric Path. Role of Electrodes Polarity , A.M. Anpilov, E.M. Barkhudarov, I.A Kossyi (GPI RAS, Moscow, Russia)	10.4 Review of Experimental Data on Conductivity Reduction Before the Shock Wave in Discharge , A.S. Baryshnikov (Ioffe Institute, St.Petersburg, Russia) Distortion of Bow Shock Wave and Flow Behind It in Poliatomic Gases , A.S. Baryshnikov (Ioffe Institute, St.Petersburg, Russia)
15:20-15:40	9.5 Electric Discharge System Based on the Pulsed High-Voltage Ring Discharge in Water. Measurements of UV Emission , (A.M. Anpilov ¹ , E.M. Barkhudarov ¹ , Yu.N. Kozlov ^{2,3} , I.A. Kossyi ¹ , I.V. Moryakov ¹ , M.I Taktakishvili ¹ , S.M. Temchin ¹ (¹ GPI RAS, ² ICP RAS, ³ PRUE, Moscow, Russia)	10.5 Special Futures of Shock Wave Passage Through the Region of Weakly Current Gasdischarge , A.V. Erofeev, T.A. Lapushkina, S.A. Poniaev (Ioffe Institute, St.Petersburg, Russia)
15:40-16:10	COFFEE BREAK	

16:10-17:50	SESSION 11. ELECTRICAL DISCHARGE IN LIQUID - 2 Chairman Ivan Moralev	SESSION 12. PLASMA CHEMISTRY Chairman Elena Filimonova
16:10-16:30	11.1 Dielectric Fluid in Inhomogeneous Pulsed Electric Fields, Mikhail N. Shneider (<i>Princeton University, Princeton, USA</i>)	12.1 The Inhibition of Plasma-Stimulated Ignition in Hydrogen-Oxygen Mixtures, N.L. Aleksandrov, S.O. Belov, S.V. Kindysheva, and I.N. Kosarev (<i>MIPT, Moscow Region, Russia</i>) A.Yu. Starikovskiy (<i>Princeton University, Princeton, USA</i>)
16:30-16:50	11.2 Prebreakdown Phenomena in Dielectric Liquid in the Strong Inhomogeneous Pulsed Electric Field, D.V. Tereshonok (<i>JIHT RAS, Moscow, Russia</i>)	12.2 Plasma Decay After High Voltage Nanosecond Discharge in Gaseous Hydrocarbons, E. Anokhin, M. Popov, *A. Starikovskiy, N. Aleksandrov (<i>MIPT, Dolgoprudny, Russia, *Princeton University, Princeton, USA</i>)
16:50-17:10	11.3 On the Theoretical Modeling of Pre-Breakdown Transformer Oil Discharges at the Unconfirmed Transformer Cooling, M.S. Apfel'baum (<i>JIHT RAS, Moscow, Russia</i>)	12.3 New Aspects in the Foundations of Radiation Transport Theory, A.V. Galaktionov (<i>JIHT RAS, Moscow, Russia</i>)
17:10-17:30	11.4 Electrical Breakdown of Transformer Oil with Air and Sulfur Hexafluoride Bubbles, M.Kh. Gadzhiev, A.S. Tyuftyaev, P.L. Akimov, M.A. Sargsyan (<i>JIHT RAS, Moscow, Russia</i>)	12.4 Diffusion of Thermal Radiation in a Media with Spatially Varying Refractive Index, A.V. Galaktionov (<i>JIHT RAS, Moscow, Russia</i>)
17:30-17:50	11.5 Prebreakdown Stages of a Pulsed Discharge in the Saline Solutions¹, I.A. Shemyakin, Y.D. Korolev, V.S. Kasyanov, V.A. Nekhoroshev, A.V. Bolotov (<i>National Research Tomsk State University, Institute of High Current Electronics, Tomsk, Russia</i>)	12.5 Theoretical and Experimental Study of the Operation of the Device For Ignition and Combustion Stabilization Dispersed Liquid Hydrocarbon Fuels, K.I. Belaysov ¹ , V.A. Bityurin ² , V.Yu. Velikodnyi ^{1, 2} , V.A. Dyrenkov ² , Yu.K. Levin ¹ , V.V. Popov ¹ (¹ IAM RAS, ² JIHT RAS, Moscow, Russia) The Study of the Processes of Non-Stationary Combustion of Kerosene with Additives of Aluminum Powder, V.A. Bityurin ¹ , V.Yu. Velikodnyi ^{1, 2} , V.A. Dyrenkov ¹ , V.V. Popov ² (¹ JIHT RAS, ² IAM RAS, Moscow, Russia)
11:00-18:00	POSTER SESSION 17	
18:00- 19:30	RECEPTION	

April 21 (Thursday)

09:15-10:00	REGISTRATION	
09:30-11:10	SESSION 13. APPLICATION PROBLEMS-3 Chairman Alexandr Firsov	SESSION 14. RELATED PROBLEMS - 1 Chairman Valery Zatelepin
09:30-09:50	<p>13.1 Plasma Parameters of Sliding Along the Electrodes Discharge in a Supersonic Gas Flow, V.M. Shibkov, L.V. Shibkova, P.V. Kopyl, A.A. Logunov, R.A. Morozov, O.S. Surkont, N.M. Kokoulin (Faculty of Physics, MSU, Moscow, Russia)</p>	<p>14.1 High-Energetic Nano-Cluster Plasmoid and Its Soft X-radiation, <u>A. Klimov</u>, N. Belov, A. Chistolinov, A. Efimov, N. Evstigneev, O. Ryabkov, A. Soloviev, B. Tolkunov (JIHT RAS, Moscow, Russia)</p>
09:50-10:10	<p>13.2 Numerical Simulation of Dynamics of Concentric Dusty-Plasma Structures, O.V. Kravchenko, V.I. Pustovoit (<i>Bauman MSTU, Scientific and Technological Center of Unique Instrumentation of RAS, Moscow, Russia</i>)</p>	<p>14.2 Nanoparticles-Soot Mixture in the Radiation or/and Acoustic fields in an Inert Gas, M.N. Shneider (Princeton University, Princeton, NJ, USA)</p>
10:10-10:30	<p>13.3 Microwave Discharge in a Gas Flow, V.M. Lelevkin (<i>Kyrgyz-Russian Slavic University, Bishkek, Kyrgyzstan</i>)</p>	<p>14.3 On DD and Proton - Boron Nuclear Burning in the Potential Well of Virtual Cathode at Nanosecond Vacuum Discharge. Recent Experiments and PIC Simulations, Yu. K. Kurilenkov (JIHT RAS, Moscow, Russia)</p>
10:30-10:50	<p>13.4 Parameters of Electron-Beam Air Plasma at Moderate Pressure, N.V. Ardelyan, V.L. Bychkov, K.V. Kosmachevskii, D.S. Maximov (<i>MSU, Moscow, Russia</i>)</p>	<p>14.4 Optical and X-Radiation Spectra of Heterogeneous Plasmoid, <u>A.I. Klimov</u>, N.D. Belov, A.V. Efimov, B.N. Tolkunov,^{1,2} N.M. Evstigneev, A.V. Soloviev ² (¹JIHT RAS, ²Limited Liability Company "New Inflow". Moscow, Russia) число авторов</p>
10:50-11:20	COFFEE BREAK	

11:20-13:20	SESSION 15. COMBUSTION Chairman: Michael Ivanov	11:20-13:20	SESSION 16. RELATED PROBLEMS - 2 Chairman: Anatoly Klimov
11:20-11:50	15.1 Conceptual Design of Systems of Plasma Assisted Combustion (Invited) , M.A. Deminsky (<i>NRC "Kurchatov Institute". Moscow, Russia</i>)	11:20-11:40	16.1 Investigation of Nickel-hydrogen System at the Calorimeter , D.S. Baranov, V.N Zatelepin (<i>JIHT RAS, Laboratory "INLIS", Moscow, Russia</i>)
11:50-12:10	15.2 Formation of Combustion Wave in a Hydrocarbon-Air Mixture in Near -Electrode Layer of Surface Dielectric Barrier Discharge , V.A. Bityurin, A.N. Bocharov, E.A. Filimonova (<i>JIHT RAS, Moscow, Russia</i>)	11:40-12:00	16.2 Abnormal Daily Distributions Events, Received on the Telescope "Doch-4A" at Erzions Search in Cosmic Ray , Yu.N. Bazhutov ^{1,3} , A.I.Gerasimova ^{2,3} , V.P. Koretsky ³ , P.V. Zakharov ³ , V.P. Martemianov ⁴ , T.Yu. Prokofieva ⁴ , V.G. Tarasenkov ⁴ (¹ IZMIRAN, ² RSACU, Moscow region; ³ SRC EPP "Erzion", ⁴ NRC "Kurchatov Institute", Moscow, Russia)
12:10-12:30	15.3 Influence of Quantum Corrections on Plasma Induced Combustion of Hydrogen , I.V. Kochetov, A.P. Napartovich, Yu.V. Petrushevich, A.N. Starostin, M.D.Taran (<i>SRC RF Troitsk Institute for Innovation and Fusion Research, Troitsk, Moscow Region, Russia</i>)	12:00-12:20	16.3 Experimental Results on the Demonstration Installation with Plasma Eelectrolysis , Yu.N. Bazhutov ^{1,3} , A.I. Gerasimova ^{2,3} , P.V. Zakharov ³ , V.P. Koretsky ³ , G.S. Lyapin ³ (¹ IZMIRAN, Troitsk, ² RSACU, Moscow region; ³ SRC EPP "Erzion", Moscow, Russia)
12:30-12:50	15.4 Plasma-Stimulated Supersonic Combustion of Propane-Air Fuel in Aerodynamic Channels of Different Configurations , V.M. Shibkov, L.V. Shibkova, A.A. Logunov, R.A. Morozov, N.M. Kokoulin (Faculty of Physics, MSU, Moscow, Russia)	12:20-12:40	16.4 Energy of Long-Lived Luminescent Created with a Help of the Capillary Discharge , V.L. Bychkov, V.A. Chernikov, A.S. Osokin, D.N. Vaulin (<i>MRTI RAS, MSU, Moscow, Russia</i>)
12:50-13.10	15.5 Ethylene and Kerosene Ignition and Flame Stabilization by Means of Surface Electrode Discharge in Supersonic Airflow , D.A. Yarantsev ¹ , S.B. Leonov ¹ , A.A. Firsov ¹ K.V. Savelkin ¹ , A.N. Nikolaev, O.V. Voloshenko (¹ JIHT RAS, Moscow, TsAGI, Zhukovskiy Russia)	12:40-13.00	16.5 Data of Supervision and Theoretical Consideration of Interactions of a Fireball with Various Substances , A.V. Chistolinov (<i>LLC «Energomashavtomatika», Moscow, Russia</i>)
13:10-13:20		13:00-13:20	16.6 Integrals and Exact Solutions of Low Temperature Plasma Aerodynamic Equations with Experimental Examples of Physics and Astrophysics Processes , M.Ja. Ivanov, V.K. Mamaev (<i>CIAM, Moscow, Russia</i>)
13:20-15:00	ROUND TABLE Chairman: Valentin Bityurin		
10:00-12:00	POSTER SESSION 17		
15:00	CLOSING		

POSTER SESSION 17

17.1 Multiconnected Plane Implosion as the generalization the one problem by Pierre Huguenot (overview), V.A. Belokogne (*The National Committee of Theoretical and Applied Mechanics, Academia Cosmonautica, IO RAS, Moscow, Russia*)

17.2 On the Influence of the Condensed Particles on the Emitting-Absorbing Properties of the Pulsed Plasma Jet, A.S. Pashchina, A.V. Efimov, V.F. Chinnov, G.E. Valyano (*JIHT RAS, Moscow, Russia*)

17.3 Features of Interaction of High-Power Microwave Radiation with a Pulsed Plasma Jet, V.G. Brovkin, A.S. Pashchina, N.M. Ryazansky (*JIHT RAS, Moscow, Russia*)

17.4 The Energy Efficiency of the Generation of Hypersonic Plasma Jets in Dense Gases, T. Banokina ¹. B. Göksel ², V. Lashkov ¹, I. Mashek ¹, A. Smirnov ¹ (*¹SPBU, Saint-Petersburg, Russia, ² Electrofluidsystems, Berlin, Germany*)

17.5 Determination of Transverse Profiles of Temperature and Pressure at the Initial Non-Isobaric Section of the Pulsed Supersonic Plasma Jet, A.S. Pashchina, A.V. Efimov, V.F. Chinnov, A.G. Ageev (*JIHT RAS, Moscow, Russia*)

17.6 On Hydrodynamic Interpretation of Force Laws of Electrodynamics, V.L. Bychkov, F.S. Zaitsev (*MSU, Moscow, Russia*)

17.7 Wing Tip Vortex Position Control by a Single Pulse of MHD Actuator, I.A. Moralev, P.N. Kazansky, V.A. Bityurin (*JIHT RAS, Moscow, Russia*), Zaitsev M.Yu., Kopiev V.I.A. (*TsAGI, Moscow Region, Russia*)

17.8 Measuring the Surface Charge in the DBD by the Method of Capacitive Probes, I. Selivonin*, I. Moralev** (**MIPT, **JIHT RAS, Moscow, Russia*)

17.9 Study of the Breakdown Voltage in SDBD as a Function of Dielectric Parameters, I. Selivonin*, I. Moralev** (**MIPT, **JIHT RAS, Moscow, Russia*)

17.10 A study of geometrical characteristics of the spark discharge, Dolgov E.V.^{1,2}, Firsov A.A.¹, Shurupov M.A.¹ (*¹JIHT, ²BMSTU, Moscow, Russia*)

17.11 Research Piezo Jet Created by the MHD Actuator, P.N. Kazansky, V.A. Bityurin, I.A. Moralev, A.A. Firsov, A.V. Efimov (*JIHT RAS, Moscow, Russia*)

17.12 Temperature Measurement of the Arc Discharge with a Michelson Interferometer, R.E. Karmatsky, P.N. Kazansky, I.A. Moralev (*JIHT RAS, Moscow, Russia*)

17.13 Studying of the Pre-Breakdown Stage of a Gas Discharge in the Diode with a Pin Cathode Using Laser Probing, E.V. Parkevich^{1,2}, A.V. Agafonov¹, A.R. Mingaleev¹, I.N. Tilikin¹, V.M. Romanova¹, T.A. Shelkovenko, S.A. Pikus¹ (*¹LPI RAS, Moscow, ²MIPT, Dolgoprudnyy, Moscow Region, Russia*)

17.14 Diagnostic of Plasma of Electrodynamical Dispersed Systems Yu.I. Anisimov, N.A. Agishev, K.E. Metelskiy, I.Ch. Mashek (*SPBU, Phys faculty, Saint-Petersburg, Russia*)

