**Monday, 2 November**

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| Time |  | | | | | | |
| 9.00 | **Registration** | | | | | | |
| 9:30 | **Opening of the Conference, Chairs – Vasily Fomin, Alexandr Shipluk** | | | | | | |
|  | **Technical break** | | | | | | |
| 10.00 | Section 1, Chair – Valery Zapryagaev | Section 2, Chair – Viktor Kozlov | | Section 3, Chair – Alexandr Shevyrin | | Section 4 Chair – Alexey Medvedev | |
| ID 65 Alexandr Nesterov (ITAM), S.V. Poplavski, V.M. Boiko. Investigation of influence of scale factor on the features of pneumatic atomizers | ID 139 Valeriya Kaprilevskaya (ITAM), A.M. Pavlenko, V.V. Kozlov. Investigation of the flow over fliying wing surface with three-dimensional roughness placed on the leading edge | | ID 167 Sergey Akinin (ITAM), A.V. Starov. Computational-experimental study of hydrogen ignition with distributed injection from pylons into a supersonic flow | | ID 244 Inna Kolinko (ITAM), N.V. Denisova. Development of the "polar map" method in nuclear cardiology | |
| ID 66 Anna Pevzner (ITAM), A.V. Lokotko, N.V. Yakovleva. Application of databases for acquisition, storage, and processing of results of aerodynamic experiments | ID 163 Dinar Zaripov (IT SB RAS), V.A. Ivashchenko, R.I. Mullyadzhanov. A possible mechanism of near-wall reverse flow formation in zero-pressure-gradient turbulent boundary layer | | ID 44 Taliana Мilitsina (ITAM), I.R. Valiullin. Numerical and experimental study of a supersonic flow around a cylinder with gas-permeable porous inserts at an angle of attack | | ID 245 Mikhail Gurko (ITAM), A.N. Konovalov, S.M. Prigarin. Study of gamma radiation transfer through collimator in nuclear medicine applications | |
| ID 121 Maxim Danilov (NSUACE), P.P. Bardaev, M.G. Orlov. Computational algorithm of the optical method for measuring strain fields on the surface of structures made of structurally heterogeneous materials with cracks | ID 175 Anton Bykov (ITAM), A.M. Pavlenko, B.Ya Zanin. An experimental study of the processes of laminar-turbulent transition on the model of a trapezoidal flying wing | | ID 233 Vladimir Zudov (ITAM), P.K.Tretyakov. Influence of engine flowpath options on the minimum flight number | | ID 290 Natalia Denisova (ITAM), H. Kertész2, T. Beyer. Local statistical regularization method for solving image reconstruction problems in emission tomography with Poisson data | |
| ID 195 Alexey Savitskii (IT SB RAS). PLIF investigation of turbulent mixing in a model GT-combustor | ID 49 Lukeriya Trubitsyna (ITAM), V.I. Zapryagaev, I.N. Kavun. Structure of a supersonic separated flow over a compression corner with side walls | | ID 266 Andrey Shmakov (ITAM), A.M. Shevchenko. Interaction of a pair of vortex wakes at Mach 3 | | ID 126 Irina Schweigert (ITAM), S. Vagapov, Dm. Zakrevsky, P. Gugin, E. Milakhina, E. Golubitskaya, O. Troitskaya, O. Koval. Enhancement of impact of atmospheric plasma jet on cancer cells with external electrode | |
| ID 156 Vitaly Khudozhitkov (NSU), V.V. Kalyada. Registration of protoned argon and helium in a clusterized gas flow of argon-hydrogen and helium-hydrogen mixtures | ID 133 Lyudmila Kurbatskaya (ICM MG SB RAS). Eddy mixing, gravity waves and the intermittent turbulence in atmospheric flows under stronger stratification | | ID 232 Mikhail Akimov (ITAM), A.D. Budovskiy, A.D. Obuhovskiy, P.A. Polivanov. Experimental and numerical investigation of the aerodynamic drag crisis of thick teardrop aerofoil with rounded trailing edge | | ID 204 Dmitry Tropin (ITAM), I.A. Bedarev. Detonation wave suppression in hydrogen-air mixture by inert gas plugs | |
| ID 131 Dmitry Sharaborin (IT SB RAS). Optical diagnostics in a flame using Raman and Rayleigh scattering techniques with structured laser illumination | ID 246 Vitaliy Zinovyev (ITAM), D.S. Mironov, V.A. Lebiga and A.Yu. Pak. Experimental investigation of influence of localized inhomogeneity of mean flow on the structure of fluctuations in the wake behind a bluff body | | ID 240 Ivan Kazanin (ITAM), V.N. Zinovyev, A.S. Vereshchagin, A.V. Alyanov, D.S. Mironov, A.Yu. Pak, V.M. Fomin. Interaction of a shock wave with selectively sorbing granulated media | | ID 206 Sergey Lavruk (ITAM), D.A. Tropin. Critical conditions of heterogeneous detonation propagation during interaction with water cloud droplets | |
|  | ID 98 Ivan Kabardin (IT SB RAS), M.Kh. Pravdina, V.I. Polyakova, M.R. Gordienko, N.I. Yavorsky. LDA investigation of hydraulic instability in the ranque-hilsch vortextube | | ID 237D.S. Mironov (ITAM), V.N. Zinovyev, V.А. Lebiga, А.Yu. Pak, J.J. Miau, M.-C. Tsai, Y.-H. Lai. Features of 2d and 3d flow over circular cylinder with different surfaces | | ID 276 Sergey Lavruk (ITAM), S.A. Valger. Numerical simulation of gas emission transport near the automotive at different configurations of roadside territories | |
|  | ID 99 Ivan Kabardin (IT SB RAS), N.I. Yavorsky, M.R. Gordienko, A.K. Kabardin, D.P. Ezendeeva, S.V. Kakaulin. The applicability limits comparison of K-W turbulence model and Reynolds stress transfer model in the problem of intensification of mass transfer under flow control | | ID 132 Marat Goldfeld (ITAM). Heat modes of the supersonic combustion chamber at high entrants Mach numbers | | ID 207 Dmitry Tropin (ITAM). Detonation wave suppression in hydrogen based gas mixtures by clouds of inert particles | |
|  | ID 24 Svetlana Valger (NSUACE), N. N. Fedorova. Study of coherent structures effect on mixing characteristics of jets injection into supersonic crossflow | | ID 277 Sergey Lavruk (ITAM), I.A. Bedarev. Numerical investigation of shock wave reflection on a wedge in a heterogeneous flow | | ID 292 V.P. Chekhov (ITAM), Yu.M. Prikhodko. Comparison of noise characteristics of blade and disk fans | |
|  | ID 248 Alexey Pak (ITAM), V.A. Lebiga, V.N. Zinovyev, D.S. Mironov. Investigation of Couette flow in a semicircular channel with irregularities of walls | |  | | ID 130 Vasilii Markin (ITAM), P.A. Polivanov. Study of quadcopter propellers at low Reynolds numbers | |
|  | ID 222 Mikhail Katasonov (ITAM), I.A. Sadovskiy. Experimental investigation of disturbances generated by impulse deflection of the membrane in the swept wing boundary layer under the moderate free - stream turbulence level | |  | |  | |
|  | ID 228 Sergey Morozov (ITAM), A.N. Shiplyuk. Stability of the boundary layer in the Mach-6 contoured nozzle with local surface heating | |  | |  | |
| 12:30 | **LUNCH** | | | | | | |
| Time | Section 1, Chair – Vadim Lebiga | | Section 2, Chair – Viktor Kozlov, Mikhail Katasonov | | Section 3, Chair – Alexey Kudryavtsev | | Section 4 Chair – Sergey Klinkov |
| 13:30 | (Invited paper) ID 238 Irina Znamenskaya (MSU), I.A. Doroshchenko, D.I. Tatarenkova, N.N. Sysoev Big data problem in hydrodynamic flow visualization | | (Invited paper) ID 104 Vladimir Kornilov (ITAM), I.N. Kavun, A.N. Popkov. Technology of combined turbulent flow control on an airfoil by distributed air blowing / suction | | (Invited paper) ID 218 Sergey Isaev (SPb SUCA), V. Lebiga, A. Sudakov, D. Nikushchenko, J.-J. Miau, Y.-H. Lai, V. Zinovyev. Structures control with the use of the trottling effect, vortex cells and surface generators – inclined oval-trench dimples | | (Invited paper) ID 39 Dmitry Smirnov (SibNIA), A.N. Ser'yoznov, V. L. Chemezov, A.A. Urbakh, S.V. Sheyfer. Analysis for the past decade of trends change in forecasts of development on scientific researches in the field of aeronautical technologies for the of 2020-2050 years. |
| 14:00 | ID 160 Anton Gorbushin (TsAGI). The effect of the weight of the model and the metric part of the balance when measuring unsteady loads by strain-gauge balance | | ID 22 Alexandr Kuryachii (TsAGI), S.A. Baranov, S.L. Chernyshev, A.Ph. Kiselev, D.S. Sboev, S.N. Tolkachev. Three-dimensional boundary layer stability control by near-surface dielectric barrier discharge | | ID 59 Fedor Maksimov (IMech MSU), S.V. Guvernyuk. Unsteady phenomena and hysteresis at supersonic flow of body systems | | ID 134 Alexander Wagner (GAC), V. Wartemann, C. Dittert. Concluding the development of CC-sic AS ultrasonically absorptive thermal protection material for hypersonic transition suppression – part 1 |
| 14:20 | ID 2 Chung Kung-Ming (NCKU Taiwan), J.C. Huang, K.C. Chang, P.H. Chung. Surface pressure measurement for biconvex-corner flow using pressure sensitive paint | | ID 216 Nikolai Semenov (MIPT), A.V. Novikov, I.O. Pogorelov. Modelling of suction for supersonic laminar flow control | | ID 118 Tatiana Konstantinovskaya (KIAM RAS), V.E. Borisov, A.A. Davydov, A.E. Lutsky. Numerical simulation of two streamwise supersonic vortices interaction | | ID 137 Wartemann Viola (GAC), Wagner A., Dittert C. Concluding the development of CC-SiC as ultrasonically absorptive thermal protection material for hypersonic transition suppression – part 2 |
| 14.40 | ID 162 Iliay Saushin (IPEAT FRC RAS, Kazan), A.E. Goltsman. Estimation of the liquid film thickness by the Beer–Lambert–Bouguer law | | ID 221 Mikhail Katasonov (ITAM), V.V. Kozlov, G.R. Grek, V.I. Kornilov, I.A. Sadovskiy. Control of the laminar boundary layer disturbances by distributed suction trough a perforated surface | | ID 143 Ivan Rusyak (Kalashnikov ISTU), V.A. Tenenev, S.A. Korolev. Numerical research of resistance of environment to accelerated motion of bodies with various forms in channel of constant section | | ID 164 Wang Qiu (IM CAS, China ). Modeling of two stage gas gun driven by gaseous detonation |
| 15.00 | ID 32 Maxim Danilov (NSUACE), P.P. Bardaev. Multi-objective optimization of the geometry of the elastic element of a wind tunnel balance | | ID 178 Stepan Tolkachev (TsAGI), S.A. Baranov, A.Ph. Kiselev, D.S. Sboev. Investigation of a sectioned boundary layer suction system in case of failure of one of its sections in application to the three-dimensional boundary layer laminarization on the swept wing | | ID 148 Valery Molochnikov (IPEAT FRC RAS, Kazan), A.B. Mazo, E.I. Kalinin, M.A. Klyuev, A.A. Paereliy. Vortical structure of flow behind a near-wall cylinder at moderate Reynolds numbers | | ID 283Katerina Beklemysheva (MIPT), I.B. Petrov. Numerical simulation of low-speed impact on aircraft composite materials |
| 15:20 |  | | ID 291 Andrey Boiko (ITAM), K.V. Demianko, A.V. Ivanov, S.V. Kirilovsiy, D.A. Mischenko, Y.M. Nechepurenko, T.V. Poplavskaya. On the development of methods of the laminar-turbulent transition prediction | | ID 190 Fedor Maksimov (MSU), N.A. Ostapenko, M.A. Zubin. Vortex structures around the diamond wing in supersonic flow. | | ID 80 Konstantin Arefyev (CIAM), L.S. Yanovskiy. Patterns of combustion of dispersed boron-containing particles in a high enthalpy air flow |
| 15:40 | **Technical break** | | | | | | |
| Time | Section 1, Chair – Andrey Sidorenko | | Section 2, Chair – Andrey Boiko | | Section 3, Chair – Georgy Shoev  Краткие сообщения | | Section 4 Chair – Vladimir Kosarev |
| 16:00 | ID 5 Lyudmila Stepanova (SibNIA), A.N. Ser’eznov, V.V. Chernova. Defects detection of the composition caisson of the aircraft wing by the acoustic emission method during static and shock load | | ID 286 Yury Kachanov (ITAM), V.I. Borodulin, A.V. Ivanov Analysis of distributed excitation and suppression of cross-flow instability waves in three-dimensional boundary layers | | ID 27 Daniil Kaufman (SPbU), A.N. Ryabinin. Oscillation of a cylinder with a coaxially fixed disk at the front end in the air flow  ID 119 Iliay Alekseev (SPbU), E.V. Kustova. Numerical simulation of shock waves in viscous multi-temperature carbon dioxide flows  ID 145 Ivan Ilyukhin (TsAGI), I.V. Egorov, V.Ya. Neiland. Investigation of shock wave boundary layer interaction over the moving flat plate ID 196 Yury Dobrov (SPbU), V.A. Lashkov, I.Ch. Mashek, R.S. Khoronzhuk. Surface heat fluxes on plate after local energy supply into supersonic gas flow  ID 256 Elizaveta Kolesnik (SPbPU), E.M. Smirnov. Dual Numerical Solutions for a Supersonic Laminar Flow Past a Plate and a Blunt-Fin Body Junction,  ID 103 Alexey Savelev (SPbU), E.V. Kustova. Rate coefficients of chemical reactions involving vibrationally excited carbon dioxide molecules  ID 108 Mariya Mekhonoshina (SPbU), E.V. Kustova. Calculation of vibrational relaxation times in carbon dioxide using forced harmonic oscillator mode | | ID 4 Mark Petrov (SibNIA). Interdisciplinary approach to solving problems on the flow and fracture of materials |
| 16.20 | ID 10 Andrey Mazutskiy (SibNIA), A.R. Zagidulin, A.V. Vorobyov, V.F. Samuilov, M.M. Druzhinin. Physical bases of modeling the elasticity of the airframe when reproducing the phenomenon of shimmy wheels on a test stand with mobile support | | ID 289 Yury Grigoryev (ICT SB RAS), I.V. Ershov. Estimation of the zone of laminar-turbulent transition in a supersonic boundary layer of a vibrationally excited gas on a plate | | ID 6 Sergey Kabanov (SibNIA), A.N. Ser’eznov, L.N. Stepanova, I.S. Ramazanov. Acoustic emission control of welding seams of the bench longevity testing unit of the heavy plane landing gear |
| 16:40 | ID 63 Alexandr Kuznetsov (SibNIA), A.N. Seryeznov, A.V. Lukyanov, A.A. Bragin. Measuring deformation, temperature, vibration and acoustic emission signals of aircraft structures using fiber optical sensors | | ID 88 Boris Smorodsky (ITAM), V.I. Lysenko, Y.G. Yermolaev, A.D. Kosinov. An experimental study of effect of heavy gas injection into boundary layer on perforated model surface at Mach number 2 on its stability to controlled disturbances | | ID 16 Vladimir Nikolaev (SibNIA), S.A. Gusev. Theoretical studies of the cockpit systems thermophysical parameters using stochastic differential equations |
| 17:00 | ID 205 Dmitry Bountin (ITAM), Yu. Gromyko, P. Polivanov, A. Maslov. Application of the laser knife method for visualization of structures in a hypersonic boundary layer | | ID 189 Vladimir Zametaev (TsAGI), I.I. Lipatov. Thin turbulent boundary and free shear layers | | ID 236 Irina Znamenskaya (MSU), E.Yu. Koroteeva, T. A. Kuli-zade, D.I. Tatarenkova. Dielectric ledge influence on a gas dynamic induced by plasma actuator |
| 17:20 | ID 127 Alexandr Yaskin (NSU), A.E. Zarvin, V.V. Kalyada, K.A. Dubrovin, V.E. Khudozhitkov. Registration of liquid flow through the capillary into vacuum | | ID 38 Kirill Demyanko (INM RAS), A.V. Boiko, V.G. Chernoray. On the temporal stability of fluid flow in an elliptic pipe with compliant wall | | ID 231 Vyacheslav Volchenko (FIC Nimbus), A.N. Ser’yoznov, Hybrid and electric propulsion system of aircrafts |
| 17:40 | ID 86 Iliay Popov (JIHT RAS), I.A. Moralev, M.V. Ustinov. Structure of the wavepacket induced in a boundary layer by a localized microdischarges group in plasma actuator | | ID 7 Anаtoly Ryabinin (SPbU). Bifurcations of transonic flow in the channels of various shapes | |  |

**Tuesday, 3 November**

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| Time |  | | | | | | |
| 9.00 | Section 1, Chair – Viktor Boiko | Section 2, Chair – Viktor Kozlov | | Section 3, Chair – Andrey Boiko | | Section 4 Chair – Natalia Fedorova | |
| ID 279 Irina Samsonova (ITAM), V.M. Boiko, S.V. Poplavski, A.A. Pivovarov. Induction time of liquid drop breakup in accelerating flow | ID 187 Leonid Afanasev (ITAM), A.D. Kosinov, A.A. Yatskikh, V.L. Kocharin, N.V. Semionov, Yu.G. Yermolaev. Measurement of the correlation of disturbances from a weak shock wave and pulsations of the boundary layer of a flat plate with a blunted leading edge at Mach 2. | | ID 168 Alexey Starov (ITAM), M.I. Yaroslavtsev. The tests of a hypersonic module with external flow at M = 4 in hot-shot wind tunnel | | ID 219 Olga Vankova (ITAM). Comparison of turbulence/chemistry interaction models in the problem of ignition a parallel hydrogen jet in a supersonic air flow | |
| ID 262 Alexandr Zaitsev (ITAM), K.V. Rymarenko, M.T. Nukhaev. Using the needle valve as a gas flow meter. Numerical, analytical and experimental study | ID 182 Vasily Kocharin (ITAM), A.A. Yatskikh, D.S. Prishchepova, A.V. Panina, Yu.G. Yermolaev, A.D. Kosinov, N.V. Semionov, L.V. Afanasev. Experimental study of the impact of n-wave on heat transfer in a boundary layer of a flat plate at the Mach number 2 | | ID 157 Elizaveta Dauengauer (IT SB RAS), M.Y. Hrebtov, R.I. Mullyadzhanov. Numerical simulations of the cavitating flow around a hydrofoil at high Reynolds number | | ID 77 Andrey Semyonov (NSUEM). Numerical model of a liquid capillary diode in a non-stationary liquid flow.. | |
| ID 270 Alexandr Zaitsev (ITAM), G.V. Ermolaev, V.I. Yakovlev. Simulation of conditions for formation of high-velocity microsjet flow by pulse laser radiation | ID 198 Alexey Yatskikh (ITAM), A.D. Kosinov, N.V. Semionov, Yu.G. Ermolaev, V.L. Kocharin, L.V. Afanasev. Investigation of laminar-turbulent transition of supersonic boundary layer by scanning constant temperature hot-wire anemometer at Mach 2-4 | | ID 8 Pavel Ianko (IT SB RAS), A.Yu. Kravtsova. Experimental investigation of the fluid flow structure in t type micromixers for varied inlet flowrates ratio | | ID 124 Valentin Temerbekov (ITAM), I.A. Bedarev. Calculation of a detonation wave interaction with a rigid permeable barrier in a hydrogen-air mixture | |
| ID 271 Konstantin Rymarenko (MTF), A.V. Zaitsev, S.А. Titov, M.T. Nukhaev. Virtual multiphase flowmeter for oil production based on a Venturi pipe | ID 239 Sofia Shipul (ITAM), N.V. Semionov, A.D. Kosinov, V.L. Kocharin, A.A. Yatskikh. An effect of unit Reynolds number on the laminar-turbulent transition on 3D swept wing with χ = 72° at M = 2. | | ID 117 Kseniya Borovik (FEFU). On modeling axisymmetric gas flows under heterogeneous combustion in porous media | | ID 144 Nataliya Belousova (ICKC SB RAS), O.G. Glotov, A.V. Guskov. Experimental study of the motion laws of burning titanium particles | |
| ID 272 Marat Nukhaev (SFU), A.V. Zaitsev, K.V. Rymarenko, G. Aytkaliev. Creation and registration of thermal marks for horizontal wells monitoring | ID 250 Alexandra Panina (ITAM), A.A. Yatskikh, A.D. Kosinov, Yu.G. Yermolaev, N.V. Semionov. On the artificial wave packet development in a spanwise modulated boundary layer on the swept wing at Mach 2.5 | | ID 223 Alexey Melnikov (ITAM), V.A. Kislovskiy. Ersonic flow with heat exchange in a long channel with pseudoshock formation | | ID 241 Ivan Kazanin (ITAM), V.N. Zinovyev, A.S. Vereshchagin, A.Yu. Pak, V.M. Fomin. Resource tests of a composite sorbent based on hollow microspheric particles | |
| ID 273 Grigory Ermolaev (ITAM), А.V. Zaitsev. Analysis of experimental data on the burning time of boron particles in a flat burner | ID 263 Alexey Yatskikh (ITAM), A.V. Panina, Yu.G. Ermolaev, V.L. Kocharin, N.V. Semionov, A.D. Kosinov  Experimental investigation of natural disturbances of a supersonic boundary layer on a swept-wing model with periodic roughness at Mach 2.5 | | ID 230 Nikolai Kozyulin (IT SB RAS), M.Y. Hrebtov, R. I. Mullyadzhanov. Simulation of a cavitating flow around a hydrofoil with spanwise jet. | | ID 208 Sergey Laruk (ITAM), T.A. Khmel. Influence of mixture composition on critical conditions of detonation propagation in channels with expansion | |
|  | ID 284 Vasily Kocharin (ITAM), A.A. Yatskikh, N.V. Semionov, S.N.Tagaev, A.D. Kosinov, Yu.G. Yermolaev. Experimental study of the laminar-turbulent transition in the boundary layer of the wing with a sweep angle of the leading edge of 72 degrees at Mach 4 | | ID 9 Valentin Kislovskiy (ITAM), A.Y. Melnikov, D.A. Gubanov. Experimental the aerodynamic noise study of a flowing jet at various channel end configurations | | ID 129 Pavel Polivanov (ITAM), А.А. Sidorenko. Aerodynamic characteristics of a quadcopter with a damaged propeller | |
|  | ID 122 Anastasiya Kutepova (ITAM), P.A. Polivanov, A.A. Sidorenko. The effect of the transition on development of the separated flow in transonic flow | | ID 48 Kirill Dubrovin (NSU), A.E.Zarvin, V.V.Kalyada, A.S.Yaskin. Diagnostic of cluster jet in supersonic flow of rarefied condensing gas | | ID 154 Pavel Mokrushnikov (NSUACE), E.V. Lezhnev, V.Ya. Rudyak. In silico modeling gas molecules transfer through the biomembrane by kinks-solitons | |
|  | ID 278 Alexandr Semenov (ITAM), S.A. Gaponov, A.A. Yatskih. Numerical simulation of a boundary layer with sublimation coating at Mach number 2 | | ID 25 Nadezhda Skibina (TSU, Tomsk), V.V. Matskevich, V.V. Faraponov. Research of the gas flow in a channel with sudden expansion under conditions of supersonic flow around axisymmetric model | |  | |
|  | ID 257 Vladimir Ryzhenkov (IT SB RAS), R.I. Mullyadzhanov. Vortex breakdown scenario in the annular swirling jet | | ID 26 Nadezhda Skibina (TSU, Tomsk), N.V. Savkina, V.V. Faraponov. Mathematical simulation of operating fluid unsteady flow in a pulsed aerodynamic wind tunnel: testing and correction of the calculation methodology | |  | |
|  | ID 269 Egor Palkin (IT SB RAS), Mullyadzhanov R., Hadžiabdić M., Hanjalić K. Active heat transfer and flow control over a cylinder by rotary oscillations | | ID 50 Andrey Pivovarov (ITAM), V.I. Zapryagaev, I.N. Kavun. Pulsations parameters in the mixing layer of high-speed subsonic jet | |  | |
|  |  | | ID 280 Anton Shevchenko (ITAM), S.N. Yakovenko. Numerical models of flow control in jets | |  | |
| 10.40 | **Technical break** | | | | | | |
| Time | Section 1, Chair – Sergey Poplavski | | Section 2, Chair – Mikhail Katasonov | | Section 4/1 Chair – Marat Ktalkherman | | Section 4 Chair – Elena Golovneva |
| 11:00 | ID 106 Nikolai Korobeishchikov (NSU), M.A. Roenko, V.I. Nikolaev. Diagnostics of gas cluster beams by cross-section intensity measurements: restrictions and assumptions | | ID 146 Victor Terekhov (IT SB RAS). Subsonic separated flows under complicated conditions. Experiment and numerical simulation | | ID 138 Alexey Medvedev (ITAM), P.S. Gafurova. Air flow and precipitation of medicine aerosol droplets in the human bronchial tree | | ID 274 Natalia Fedorova (ITAM), M.A. Goldfeld Transient modes of hydrogen ignition and flame stabilization in high-speed flows |
| 11:20 | ID 53 Sergey Poplavski (ITAM), A.Yu Nesterov, V.M. Boiko. Method for the gas velocity restoring from droplet velocity in gas-liquid jets | | ID 185 Oleg Vishnyakov (ITAM), P.A. Polivanov. Evolution of artificial disturbances in laminar boundary layer separation area for M=1.45 | | ID 197 Alexandr Chupakhin (LIH SB RAS), M.Yu. Mamatyukov, A.K. Khe, D.V. Parshin. Energy of a hydroelastic system: modeling and applications in hemodynamics | | ID 202 Tatiana Khmel (ITAM), S.I. Tolkacheva. Numerical study of marginal modes of heterogeneous detonation in non-uniform mixtures |
| 11:40 | ID 33 Anаtoly Lokotko (ITAM) The impact of blowing of the balance elements on the accuracy of determining the aerodynamic | | ID 158 Alexey Dyachenko (IT SB RAS), V.I. Terekhov, V.L. Zhdanov, K.A. Sharov, Ya.J. Smulsky. Effect of square tabs on flow dynamics and heat transfer in the separated region behind the backward-facing step | | ID 243 N. Denisova (ITAM), P. Ruzankin, Y. Lim. Statistical approach to inverse problems in emission tomography with Poisson data. | | ID 183 Semen Borisov (ITAM), A.N. Kudryavtsev, A.A. Shershnev. Numerical simulation of hydrocarbon detonations on GPU clusters using different chemical mechanisms |
| 12.00 | ID 36 Andrey Tupikin (ITAM). Laboratory stand for studying the working of burners with electric combustion control | | ID 64 Boris Zanin (ITAM), A.V. Dovgal, A.M. Sorokin. Perturbed laminar flow separating From an axisymmetric body | | ID 264 Valery Pickalov (ITAM) Filtration and back projection algorithm for the parabolic tomography problem | | ID 125 Irina Schweigert (ITAM), P. Bokhan, Dm. Zakrevsky. Controlling the breakdown delay time in pulse high-voltage discharge with capillary discharge. Numerical. Simulations and experiment |
| 12:30 | **LUNCH** | | | | | | |
| Time | Section 1, Chair – Vadim Lebiga | | Section 2, Chair – Andrey Boiko | | Section 3, Chair – Andrey Sidorenko | | Section 4 Chair – Tatiana Khmel |
| 13:30 | (Invited paper) ID 152 Sergey Drozdov (TsAGI), A.Yu. Kireev, A.S. Rtishcheva, S.V. Chernov, V.L. Yumashev. Numerical simulation of the real air flow and heat exchange in the hypersonic wind tunnels | | (Invited paper) ID 193 Vitaly Soudakov (TsAGI), G.G. Gadzhimagomedov, S.A. Glazkov, A.R. Gorbushin, V.E. Mosharov, D.S. Sboev. Experimental investigations of laminar-turbulent transition on large-scale transonic airfoil | | (Invited paper) ID 193 Evgeny Bondar (ITAM), A.V. Kashkovsky, A.A. Shershnev, G.V. Shoev, A.N. Kudryavtsev, D.V. Khotyanovsky, P.V. Vashchenkov, A.A. Shevyrin, A.N. Molchanova, S.P. Borisov, A.S. Litvintsev. Numerical modeling of high-speed thermally and chemically nonequilibrium flows on hybrid supercomputers | | (Invited paper) ID 136 Nail Musakaev (TB ITAM, IUT), S.L. Borodin. Numerical research of the hot steam-water mixture injection process into an oil-saturated reservoir |
| 14:00 | ID 186 Evgeny Streltsov (TsAGI), A.I. Ivanov. Numerical and experimental methodology for wall interference reduction in transonic wind tunnels with controlled boundary layer on solid walls | | ID 211 Pavel Chuvakhov (TsAGI), A.V. Fedorov, A.O. Obraz, I.M. Ilyukhin. Disturbance evolution over an unswept wing in a Mach 3 flow | | ID 40 Kamil Khayrullin (TsAGI), A.M. Gaifullin. Flow around an airfoil formed by a moving surface | | ID 141 Amir Gubaidullin (TB ITAM), N.G. Musakaev, O.Yu. Boldyreva, S.L. Borodin. Waves and heat-mass exchange in hydrate saturated porous systems |
| 14:20 | ID 123 Fan Xiao-hua (HAI CARDC), Sun Qi-zhi, Xu Xiao-bin, Ling Gang, Zhao Jian, Tang Zhig-gong. Investigation on non-uniformity of the settling chamber flow field in conventional hypersonic wind tunnel | | ID 212 Iliay Pogorelov (TsAGI), P.V. Chuvakhov, A.V. Fedorov. Numerical simulation of boundary layer receptivity to solid particulates near a blunt leading edge | | ID 171 Zhang Wei (CARDC), Nie Xutao,Gao Xinyu, Chenjian Wanhua. Conceptual design and numerical studies of active flow control airfoil based on shape memory alloy and macro fiber composites | | ID 235 Stanislav Borodin (TB ITAM), N.G. Musakaev, M.K. Khasanov. Numerical research of the effectiveness of various methods of methane extraction from a gas hydrate deposit |
| 14.40 | ID 92 Zhu Xinxin (HAI CARDC), Wang Hui, Zhu Tao, Yang Kai, Yang Qingtao. Improvement of Slug Calorimeter: Heat Insulation Structure and Heat Flux Calculation | | ID 214 Andrey Novikov (TsAGI), A.V. Fedorov, A.O. Obraz. Wavetrains propagating in supersonic flow over a flat plate with distributed suction | | ID 165 Nikolai Bragin (TsAGI), A.L. Bolsunovsky, N.P. Buzoverya, I.L. Chernyshev, N.A. Pushchin, S.I. Skomorokhov. About the flow aerodynamic model with engines over the wing | | ID 142 Vadim Kolotilov (ITAM), B.V. Postnikov, V.M. Fomin. Attenuation of shock wave at gas-permeable obstacles by functional dependence of barrier’s permeability through the mine opening |
| 15.00 | ID 96 Alexandr Zarvin (NSU), V.V. Kalyada, V.E. Khudozhitkov, A.S. Yaskin, K.A. Dubrovin. Possibilities of mass spectrometry of supersonic gas flows with clusters | | ID 76 Renat Tugazakov (TsAGI). Role of bursting in generation of turbulent energy in supersonic flow over a plate | | ID 173 Alina Slitinskaia (TsAGI), N.N. Bragin, A.V. Voevodin, D.N. Grebenev, A.A. Kornykov, A.S. Petrov, D.A. Petrov, S.I. Skomorokhov, G.G. Sudakov. Experimental studies by wing flow control using injective ejector type actuators | | ID 72 Еlena Golovnevа (ITAM), I.F. Golovnev, А.V. Utkin, А.М. Igoshkin. Development of the technique of numerical simulation of acetylene propagation in slot structures and its adsorption on surface |
| 15:20 | ID 203 Rodion Stepanov (ICMM UrB RAS), V.G. Batalov. Development of IPI technique for droplet size measurements using wavelet analysis | | ID 251 Vladimir Shalaev (MIPT). Some new results in 3d boundary layer theory | | ID 172 Alina Slitinskaia (TsAGI), N.N. Bragin, M.F. Garifullin, D.B. Korneeva, S.I. Skomorokhov. About the influence of deflected wing surfaces on flow parameters in the tail area | | ID 47 Sergey Aul’chenko (ITAM), E.V. Kartaev, V.A. Emel’kin. Synthesis of titania-silica composite nanoparticles in the case of combined injection of their precursor vapors Into flow type plasmachemical reactor |
| 15:40 | **Technical break** | | | | | | |
| Time | Section 1, Chair – Valery Zapryagaev | | Section 2, Chair – Alexandr Pavlenko | | Section 3, Chair – Sergey Yakovenko | | Section 4 Chair – Sergey Klinkov |
| 16:00 | ID 149 Vladislav Degtyarev (PNRU), A.A. Siner. Development of a model laboratory setup for the research of broadband noise generation processes | | ID 87 Ivan Moralev (JIHT RAS), I.M. Popov, I.V. Selivonin, M.V. Ustinov. Excitation of the 2d boundary layer by stachastic processes in plasma actuator | | ID 30 Sergey Strijhak (ISP RAS), K.B. Koshelev, V.G. Melnikova. Using a thermodynamic film model based on shallow water theory and a dynamic mesh model for the icing of 2D/3D bodies in the icefoam solver simulation | | ID 151 Valery Rudyak (NSUACE), D.S. Tretyakov Experimental study of transport properties of nanofluids with single-walled carbon tubes |
| 16.20 | ID 170 Oleg Kustov (PRNPU), I.V. Khramtsov, V.V. Palchikovskiy, R.V. Bulbovich. Comparison of acoustic characteristics of resonant liner samples at normal incidence of waves based on semi-empirical models, natural experiments and numerical simulation | | ID 91 Pavel Kazanskii(JIHT RAS), I.A. Moralev, A.Ya Kotvitskii, V.A. Bityurin, A.N. Bocharov, A.A. Firsov. Disturbance structure features created by a pulse arc discharge | | ID 110 Anton Karpenko (SPbU), K.N. Volkov, Yu.V. Dobrov, V. N. Emelyanov. Numerical simulation of hypersonic flow around a spacecraft using an explicit-implicit hybrid algorithm on GPU | | ID 83 Sergey Bardakhanov (ITAM), I.K. Chakin, V.R. Gaponenko. Production of fine powders and their properties |
| 16:40 | ID 176 Igor Khramtsov (PRNPU), O.Yu. Kustov, V.V. Palchikovskiy  Technique for evaluating the acoustic properties of a liner at grazing incidence of wave based on numerical simulation | | ID 179 Alexandr Kotvitskii (JIHT), P.N. Kazansky, I.A. Moralev. Structure of perturbations created by a pulsed electric arc in a boundary layer shear flow | | ID 255 Lorenzo Campolia (SPbU), Machine Learning Methods for State-to-State Approach | | ID 85 lgor GоIоvnеv (ITAM), В.М. Kuchumov, A.S. Sukhikh, l.K. Igumenov. Hybrid method for calculation of potentials оf multiatomic molecules interaction in the gas phase |
| 17:00 | ID 258 Andrey Prokofiev (SSAU), O. V. Baturin, G.M. Popov, V.M. Zubanov. Improving the performance of a two-stage centrifugal pump by optimizing its flowpath | |  | | ID 3 Alexandr Obukhov (IUT, Tyumen). Numerical simulation of lateral wind influence on the ascending swirling airflow | | ID 69 Alexandr Belkin (NSUACE), V.Ya. Rudyak, E.V. Lezhnev. Simulation of the transport processes in confined conditions |
| 17:20 | Andrey Shevchenko (ITAM), L.V. Afanasiev, D.G. Chechin, A.S. Shmakov. On-board eight-hole pressure probe system to measure wind speed with UAVS | |  | | ID 225 Andrey Bryzgalov (IPMech RAS). Numerical simulation thermodinamically and chemically non-equilibrium flow behind a shock wave | | ID 105 Vera Cherepanova (ITAM), A.N. Cherepanov. Crystallization of nanomodified metal drop after collision with a substrate |
| 17:40 | ID 159 Vitaliy Gubskiy (TsAGI). Practical skills method for aerodynamics software using | |  | | ID 210 Vladimir Frolov (SSAU). Method of calculating flow around extremely thin airfoil with flap in close proximity ground | | ID 81 Dmitry Trufanov (ITAM), S.P. Bardakhanov, V.R. Gaponenko. High-temperature reactions in the gas phase upon receipt of nanopowders |

**Thursday, 5 November**

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| Time | Section 3/1 Chair – Andrey Tupikin | Section 2, Chair – Viktor Kozlov | Section 3, Chair – Dmitry Khotyanovsky | Section 4 Chair – Vladimir Kosarev |
| 9:00 | ID 1 Yury Gounko (ITAM), I.N. Kavun. Numerical simulation of shock-wave starting an inlet tested in an impulse wind tunnel with a throttled plenum chamber | ID 287 Vladimir Borodulin (ITAM), A.V. Ivanov, Y.S. Kachanov, J.D. Crouch. Swept-wing boundary layer transition in presence of spanwise-uniform roughness strips at enhanced turbulence levels | ID 288 Tatiana Kiseleva (ITAM), S.V. Lukashevich. Numerical simulation of sonic boom near-field flow over C25D model | ID 209 Andrey Radchenko (ISPM SB RAS), P.A. Radchenko, S.P. Batuev. Modeling of the reinforced concrete structures destruction at high - velocity impact. |
| 9:20 | ID 46 Vladimir Zudov (ITAM), O.A. Shmagunov. Influence of the local region of energy emission on the initiation of ignition of a fuel mixture in a flow | ID 249 Vadim Lebiga (ITAM), A.Yu. Pak, V.N. Zinovyev, D.S. Mironov  Comparison of the Couette flow characteristics in a semicircular channel for air and helium | ID 31 Sergey Gusev (ICM&MG SB RAS), V.N. Nikolaev. Numerical and statistical simulation technuque for the aircraft wing thermal state in icing conditions | ID 261 Stanislav Batuev (ISPM SB RAS),, P.A. Radchenko, A.V. Radchenko  Mathematical modeling of the interaction of a titanium striker with a reinforced concrete barrier |
| 9:40 | ID 57 Anna Kalinina (ITAM), V.P. Zamuraev. Decelerating of supersonic flow up to transonic velocities using gas-dynamic pulses during combustion of hydrocarbon fuels | ID 79 Vladimir Berdnikov (IT SB RAS), V.A. Grishkov, V.A. Vinokurov, V.V. Vinokurov, S.A. Kislitsyn, K.A. Mitin. Development of non-stationary free-convective boundary layers on vertical walls | ID 37 Vladislav Volkov (ITAM). The effect of the afterbody of the supersonic civil aircraft model on the terminal shock wave forming in the sonic boom wave profile | ID 254 Pavel Radchenko (ISPM SB RAS), S.P. Batuev, A.V. Radchenko. Mathematical modeling of fracture of silica glass under impact loading |
| 10.00 | ID 75 Albert Latypov (ITAM). Differential ramjet rocket engine, - estimates of specific impulse for hypersonic Mach numbers flight. | ID 70 Sergey Gaponov (ITAM), N.M. Terekhova. Traveling and Stationary Disturbances in a Supersonic Boundary Layer and their Interaction | ID 13 Sergey Kiselev (ITAM), V.P. Kiselev, V.N. Zaikovskii. Underexpanded jets exhausting from a rectangular channel into a slot ambient space | ID 188 Oleg Shmagunov (ITAM), A.N. Cherepanov. The dynamics of dissolution of titanium carbide in nanomodified titanium melt |
| 10.20 | ID 200 Yury Gounko (ITAM), I.I. Mazhul. Numerical modeling of three-dimensional separated flow at the initial section of a rectangular air inlet | ID 34 Ivan Tsyryulnikov (ITAM), S.V. Kirilovskiy, T.V. Poplavskaya.  Effect of enhancement of disturbances in a hypersonic boundary layer on a flat plate with a structured surface | ID 17 Alexandr Zheltovodov (ITAM), F. Liu, H. Yan. Supersonic mixing control of round jet, interacting with oblique shock wave, by pulse-periodic energy deposition | ID 140 Mikhail Yadrenkin (ITAM), T.A. Korotaeva, V.P. Fomichev. Magneto-plasma aerodynamics methods for hypersonic flow control around bodies |
| 10.40 | **Technical break** | | | |
| Time | Section 3/1 Chair – Andrey Tupikin | Section 2, Chair – Andrey Boiko | Section 3, Chair – Valery Zapryagaev | Section 4 Chair – Mikhail Yadrenkin |
| 11:00 | ID 229 Valery Zvegintsev (ITAM), V.S. Ivanov, S.M. Frolov, I.O. Shamshin, A.E. Zangiev. Testing of hydrogen-fueled detonation ramjet in aerodynamic wind tunnel at Mach 1.5 and 2.0 | ID 35 Tatiana Poplavskaya (ITAM), I.R. Valiullin, S.V. Kirilovskiy, Т.S. Мilitsina, S.G. Мironov, I.S. Tsyryulnikov. Modeling of the three-dimensional structure of high-porosity cellular materials in supersonic flows | ID 18 Tatiana Korotaeva (ITAM), V.M. Aniskin, N.A. Maslov, E.O. Tsibulskaya. Numerical and experimental investigation of the flow structure at the microjet array ejection into still air | ID 242 Svetlana Valger (NSUACE) Modelling solid particle transport and air flow around obstacle |
| 11:20 |  |  | ID 107 Viktor Ershov (PNRPU), I.V. Khramtsov. Experimental study of noise of shielded and unshielded jets | ID 23 Natalya Fedorova (ITAM), S.A. Valger. Study of gas emission transfer processes in the city canyon based on numerical simulation data |
| 11:40 | ID 227 Dmitry Vnuchkov (ITAM), V.M. Fomin, V.I. Zvegintsev, V.M. Galkin. New method for designing high-speed axisymmetric air intake | ID 115 Boris Smorodsky (ITAM), S.A. Gaponov, V.I. Lysenko, A.D. Kosinov, M.I. Yaroslavtsev. Effect of surface sublimation on boundary-layer stability | ID 169 Anuar Kagenov (TSU), K.V. Kostyushin, K.L. Aligasanova, V.A. Kotonogov. Numerical investigation of the interaction of twin supersonic jet with a flat obstacle | ID 184 Maxim Bobrov (IT SB RAS), M.Y. Hrebtov. Simulation of atmospheric convection over the river yenisei: study of large-scale vortices formation |
| 12.00 | ID 112 Alena Chernova (Kalashnikov ISTU), B.Ya. Benderskyi. Flow structure topology in a combustion chamber during solid grain geometry change | ID 282 Yury Yermolaev (ITAM), A.A. Yatskikh, A.D. Kosinov, N.V. Semionov. An effect of Stationary vortexes on the evolution of wave packet in the swept wing boundary layer at Mach number 2.5 | ID 41 Alexey Abdrashitov (IPEAT FRC RAS, Kazan), E.A. Marfin, E.A. Plakhova. Experimeal study of the jet-driven Helmholz oscillator | ID 54 Vladimir Penenko (ICMMG SB RAS), A.V. Penenko, E.A. Pyanova, E.A. Tsvetova. Direct and inverse problems for evaluating ecological situations under anthropogenic and climatic influence |
| 12:30 | **LUNCH** | | | |
| Time | Section 3/1 Chair – Andrey Tupikin | Section 2, Chair – Viktor Kozlov | Section 3, Chair – Sergey Mironov | Section 4 Chair – Nail Musakaev |
| 13:30 | (Invited paper) ID 67 Pavel Tretyakov (ITAM), A.V. Tupikin, A.L. Kuranov. The development of a new technique for the initiationand stable combustion of gaseous and liquid fuel in a high-speed airflow | (Invited paper) ID 275 Evgeny Smirnov (SPbPU), N.G. Ivanov, E.V. Kolesnik. Numerical simulation of turbulence sharply arising in a free convection vertical-plate boundary layer behind a row of rectangular protuberances | (Invited paper) ID 90 Valery Zapryagaev (ITAM), S.P. Rybak, I.N. Kavun, N.P. Kiselev, D.A. Gubanov, A.V. Sobolev. Research of supersonic jet applicable to problems of aerospace technology | (Invited paper) ID 19 Sergey Salenko (NSTU), A.D. Obukhovskiy, Yu.A. Gosteev, A.A. Lebedev. Investigation of aerodynamic characteristics of spans of pedestrian suspension bridges |
| 14:00 | ID 51 Viktoriya Svyatushenko (BMSTU), D.A. Yagodnikov, L.A. Rosanov. Mathematical model of intrachamber processes for a spaseplane’s ramjet engine | ID 161 Anna Goltsman (IPEAT FRC RAS, Kazan), I.I. Saushin. Air/water turbulent boundary layer | ID 111 Alexey Chaplygin (IPMech RAS), A.N. Gordeev. Heat transfer and flow visualization experiments for plasma jets issuing from slit nozzles | ID 29 Rodion Shmigirilov (SPbU), A.N. Ryabinin. Physical simulation of rotational and translational oscillations of a bridge |
| 14:20 | ID 217 Sergey Yakush (IPMech RAS), S.A.Rashkovskiy. Modeling of liquefying material interaction with hot gas flow in application to hybrid rocket engines | ID 181 Anton Gorbushin (TsAGI), S.L. Osipova, V.B. Zametaev. Investigation of compressible boundary layer parameters on smooth transonic wind tunnel wall at high Reynolds numbers | ID 113 Olga Kunova (SPbU), E.V. Kustova, A.S. Savelev. State-to-state simulation of vibrational-chemical relaxation of CO2/CO/O2/C/O mixture | ID 60 Sergey Strijhak (ISP RAS), A.V. Ivanov. Study of aerophysical processes in the wind farm of the republic of Adygey |
| 14.40 | **Technical break** | | | |
| 15.00 | Alexandr Shipluk «Fomin Vasily Mikhailovich and his school in mechanics» | | | |
| 15:20 | Vasily Fomin «Investigation of helium enrichment process and drying the helium-containing mixture» | | | |
| 16:00 | **Чествование Юбиляра БКЗ ИТПМ** | | | |

**Friday, 6 November**

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| Time | Section 4/2 Chair – Sergey Aul’chenko | Section 2, Chair – Viktor Kozlov | Section 3, Chair – Alexandr Kashkovsky | Section 4 Chair – Vladimir Kosarev |
| 9:00 | ID 155 Andrey Smirnov (ITAM), A.A. Chesnokov, V.S. Shikalov, S.V. Klinkov, V.F. Kosarev, T.M. Vidyuk. Cold spray deposition of bronze and stainless steel coatings from ball milled powders | ID 177 Dmitry Khotyanovsky (ITAM), A.N. Kudryavtsev. Numerical study of supersonic boundary layer instability on a wavy surface | ID 20 Evgeny Chasovnikov (ITAM). Mathematical modeling of self-induced oscillations of a segmental-conic body with free movement in the pitch angle | ID 93 Andrey Alexandrov (ITAM), I.V. Schweigert. Simulation of two-dimensional streamer in application to cold atmospheric plasma jet generation |
| 9:20 | ID 180 Vladislav Shikalov (ITAM), T.M. Vidyuk, V.F. Kosarev, S.V. Klinkov. Effect of B4C content on microhardness and sliding wear behavior of cold sprayed aluminum matrix coatings | ID 97 Alexandr Chesnokov (LIH SB RAS), V.Yu. Liapidevskii. Mixing layer and turbulent jet flow in a Hele–Shaw cell | ID 43 Sergey Mironov (ITAM), I.R. Valiullin, T.V. Poplavskaya. Control of the drag of a cylinder with gas-permeable porous inserts by varying the base pressure | ID 116 Sergey Fetsov (IACP FEB RAS), N.A. Lutsenko. On gas flows in thermal energy storages based on granular phase change material with different configurations of side walls |
| 9:40 | ID 215 Alexandr Golyshev (ITAM), А.М. Orishich. Analysis of the effect of continuous and impulse-periodical laser radiation on the forming metal-ceramic composites by the slm method | ID 100 Vladislav Ivashchenko (IT SB RAS), R.I. Mullyadzhanov. Turbulent kinetic energy balance and Karman-Howarth-Monin equations for turbulent variable-density jets: direct numerical simulations | ID 153 Stanislav Kirilovskiy (ITAM), P.A. Polivanov, А.А. Sidorenko. Numerical simulation of transonic buffeting on laminar airfoil | ID 28 Mikhail Rudenko (INRTU). On the possibility of transforming a cavitation bubble into a gas bubble |
| 10.00 | ID 224 Аnatoly Orishich (ITAM), V.М. Fomin, А.G. Malikov, А.А. Golyshev/ Creation of new heterogeneous materials with unique properties by the laser action | ID 191 Alexey Lobasov (IT SB RAS), D.K. Sharaborin, V.M. Dulin, D.M. Markovich. Experimental study of turbulent flow and mixing in free swirling jets | ID 166 Alexandr Kazakov (IDSTU SB RAS), A.A. Lempert, L.F. Spevak. Numerical modeling of filtration, diffusion, and heat conductivity processes described by a nonlinear parabolic equation with singularity | ID 52 Marat Ktalkherman(ITAM), I.G. Namyatov, E.V. Kartaev. High-temperature two-stage naphtha pyrolysis |
| 10.20 | ID 259 Dmitry Chinakhov (TPU), V.E. Ovcharenko. Processes in the melting electrode welding area and the formation of welded joint | ID 194 Sergey Yakovenko (ITAM). Vortex structure and turbulence development in stably stratified flows with orography and surface heat source | ID 199 Georgy Shoev (ITAM), A.A. Shevyrin, Ye.A. Bondar. Numerical simulation of non-equilibrium ionized air flow around a re-entry capsule | ID 42 Anton Vereshchagin (ITAM). Modelling a helium mixture flow through a bed of composite adsorbent based on microspheres |
| 10.40 | **Technical break** | | | |
| Time | Section 4/2 Chair – Аnatoly Orishich | Section 2, Chair – Andrey Boiko | Section 3, Chair – Evgeny Bondar | Section 4 Chair – Anton Vereshchagin |
| 11:00 | ID 226 Vaycheslav Teslenko (LIH SB RAS), A.P. Drozhzhin. On availabilities of reduction of CO emission for internal-combustion engines |  | ID 12 Anna Usanina (TSU, Tomsk), V.A. Arkhipov, S.A. Basalaev, N.N. Zolotorev, K.G. Perfilieva. Dynamics of the bubble cluster in the presence of a surfactant | ID 260 Alexey Medvedev (ILP SB RAS), P.A. Pinaev. A missing link of contraction of atmospheric pressure gas discharge plasma |
| 11:20 | ID 252 Evgeny Gorelikov (IT SB RAS), I.V. Litvinov, S.I. Shtork. Aerodynamics and characteristics of a premixed swirl flame | ID 128 Andrey Sidorenko (ITAM), P.A. Polivanov, D.V. Khotyanovsky. LST and DNS simulations of disturbance growth in the shock wave / laminar boundary layer interaction | ID 14 Vladimir Arkhipov (TSU, Tomsk), S.A. Basalaev, N.N. Zolotorev, K.G. Perfilieva, A.S. Usanina. Destruction dynamics of the liquid macro-volume during the free fall | ID 265 Ivan Yudin (IT SB RAS), A.K. Rebrov, A.A. Emelyanov, M.Yu. Plotnikov, N.I. Timoshenko. Microwave plasma cloud gas-jet formation over a diamond deposition surface. |
| 11:40 | ID 281 Olga Stoyanovskaya (LIH SB RAS), M.N.Davydov, T.A.Glushko, V.N.Snytnikov. Fast particle-based method for simulation the dynamics of dusty gas with intense drag between phases | ID 192 Dmitry Khotyanovsky (ITAM), A.N. Kudryavtsev. Numerical study of the effects of upstream disturbances on shock wave/boundary layer interaction on a flat plate | ID 15 Kseniya Perfilieva (TSU, Tomsk), V.A. Arkhipov, S.A. Basalaev, N.N. Zolotorev, A.S. Usanina. Measurement of the drag coefficient of sphere at account the non-isothermality and condition of gas injection from its surface | ID 268 Vladimir Tishchenko (ILP SB RAS), A.G. Berezutsky, L.R. Dmitrieva, I.B. Miroshnichenko, I.F. Shaikhislamov. Investigation of low-frequency waves generated by periodic clots of laser plasma in the magnetic force tube of magnetized plasma |
| 12.00 | ID 267 Vyacheslav Syzrantsev (IPM SB RAS), A.T. Arymbaeva, A.P. Zavjalov. The effects of silica and alumina nanoparticles of different syntesis methods on nanofluids viscosity | ID 174 Alexandr Pavlenko (ITAM), V.S. Kaprilevskaya, V.V. Kozlov, M.M. Katasonov. Influence of the boundary layer suction on the flow behind three-dimensional roughness on the straight wing model | ID 73 Alexey Kazachinsky (SPTI, Snezhinsk), I.U. Krutova. Analytical and numerical modelling of bottom flow of ascending twisted flow | ID 120 Mariya Koroleva(UFRC, UB RAS), O.V. Mishchenkova, А.А. Chernova. Air curtain with cross fan operation study |
| 12. 20 |  | ID 78 Konstantin Mitin (IT SB RAS), V.S. Berdnikov, A.V. Mitina. Radiation-convective heat transfer from rotating crystals in the Czochralski method | ID 94 Sergey Bautin (SPTI), A.A. Bugayenko, I.Y. Krutova. Smooth inhomogeneities propagating in a gas at supersonic speed | ID 109 Ekaterina Kolchanova (PNRPU). Long-wave convection in a fluid layer with porous zone under the action of longitudinal vibration in zero gravity |
| 12:40 | **LUNCH** | | | |
| 14:00 | ***Closing of ICMAR 2020*** | | | |
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