

Thursday 2 September

9:00 – 10:00 Registration

10:00 – 10:20 Opening address

Additives (1)

10:20 – 11:20

1. P. S. Virk. SCALEOUT OF WALL-INJECTED POLYOX DRAG REDUCTION FROM A PIPE TO A FLAT PLATE
2. M. Motozawa, K. Iwamoto, H. Ando, T. Senda, Y. Kawaguchi. SKIN FRICTIONAL DRAG REDUCTION WITH BLOWING POLYMER SOLUTION
3. M. Motozawa, K. Iwamoto, T. Ashida, H. Ando, T. Senda, Y. Kawaguchi. DEVELOPMENT OF THE POLYMER CONTAINING ANTIFOULING PAINT: DRAG REDUCING EFFECT AND POLYMER RELEASE RATE

11:20 – 11:40 Coffee-break

Additives (1)

11:40 – 12:40

4. H. Tochigi, D. Nakamura, S. Ogata, K. Watanabe. DRAG REDUCTION OF XANTHAN GUM SOLUTIONS
5. G. A. Voropaiev, N. F. Dimitrieva, Ya. V. Zagumennij. FEATURES OF DILUTE POLYMER SOLUTION FLOWS OVER VISCO-ELASTIC SURFACES
6. B. Stupin, P. V. Aslanov, A. P. Simonenko, N. V. Bykovskaya, A. Yu. Sobko, S. A. Fomenko. PRACTICAL APPLICATION OF HYDRODYNAMICALLY ACTIVE MICROADDITIVES OF POLYMERS AND SURFACE-ACTIVE SUBSTANCES

12:40 – 14:00 Lunch

Trap vortices and cavities

14:00 – 15:00

7. D. Lasagna, G. Iuso. FLOW CONTROL ON WING BY MEANS OF TRAPPED VORTEX CELL
8. V. G. Belinskij, A. V. Voskoboinik, Y. A. Paramonov. DRAG OF TRANSVERSAL CAVITIES OF VARIED SHAPE IN A FLAT SURFACE
9. I. M. Gorban, V. O. Gorban. FLOW CONTROL NEAR BLUFF BODIES WITH HELP OF ARTIFICIAL VORTICAL ZONES

Large-eddy breakup devices

15:00 – 16:00

10. I. Lee, K.-S. Choi, H.H. Chun. DRAG REDUCTION CAPABILITIES AND MECHANISM OF OUTER-LAYER VERTICAL BLADES ARRAY
11. V. I. Borodulin, Y. S. Kachanov and A. P. Roschektayev. STUDY OF A DRAG-REDUCTION MECHANISM BY THE DETERMINISTIC TURBULENCE METHOD
12. E. A. Shkvar, V. T. Movchan. MATHEMATICAL MODELLING OF TURBULENT BOUNDARY LAYERS, MANIPULATED BY COMBINED SYSTEMS OF FLOW CONTROL

16:00 – 16:20 Coffee-break

Compliant coating

16:20 – 17:40

13. M. Zengl, U. Rist. LINEAR STABILITY INVESTIGATIONS OF FLOW OVER COMPLIANT SURFACES USING AN EXTENDED ANISOTROPIC WALL-MODEL
14. V. M. Kulik, A. V. Boiko, H. H. Chun, I. Lee. VERIFICATION OF DRAG-REDUCTION CAPABILITIES OF STIFF COMPLIANT COATINGS IN AIR AT MODERATE SPEEDS
15. V. V. Babenko, H. H. Chun, I. Lee. METHODS OF BODIES DRAG REDUCTION
16. V. I. Kornilov, A. V. Boiko. ITAM ACTIVITIES ON TURBULENT BOUNDARY-LAYER CONTROL. RECENT PROGRESS AND PROBLEMS

18:00 Banquet

Friday 3 September

Plasma flow control

9:20 – 11:00

1. R. Whalley, K.-S. Choi. CHANGES IN TURBULENT BOUNDARY LAYER STRUCTURE BY SPANWISE TRAVELLING WAVES CREATED BY DBD PLASMA ACTUATORS
2. A. Berendt, J. Podliski, J. Mizeraczyk. DBD ACTUATORS WITH SAW-LIKE ELECTRODE
3. D. T. Elam, Y. M. Chung. NUMERICAL SIMULATION OF PLASMA ACTUATORS FOR TURBULENT SKINFRICTION REDUCTION
4. J. Kriegseis, B. Möller, K. Barckmann, S. Grundmann and C. Tropea. PERFORMANCE QUANTIFICATION OF DBD PLASMA ACTUATORS: DISCHARGE CHARACTERISTICS AND HIGH-SPEED IMPACT
5. L. H. Feng, T. N. Jukes, K.-S. Choi and J. J. Wang. CONTROL OF NACA 0012 AIRFOIL WITH THE GURNEY FLAP BY PLASMA ACTUATOR

11:00 – 11:20 Coffee-break

Turbulent boundary-layer control

11:20 – 12:40

6. N. V. Nikitin. TURBULENCE REDUCTION IN A FOUR-DIMENSIONAL CHANNEL FLOW
7. S. Tardu. CHAOTIC SYNCHRONIZATION OF THE WALL TURBULENCE WITH APPLICATIONS TO THE CONTROL
8. L. P. Huang, K. S. Choi and B. C. Fan. TURBULENCE CONTROL IN CHANNEL FLOW BY SPANWISE TRAVELLING WAVES – EFFECTS OF NON-IDEAL LORENTZ FORCING
9. J.-H. Liu, Y.-D. Kang, K.-S. Choi. MECHANISM OF LARGE-SCALE STREAKS IN LOGARITHMIC LAYER OF A TURBULENT BOUNDARY LAYER

12:40 – 14:00 Lunch

14:00 Visit to the Institute of Hydromechanics

Saturday 4 September

Riblets and dimples

9:20 – 11:20

1. R. Gruneberger, W. Hage. DRAG CHARACTERISTICS OF RIBLETS UNDER VISCOUS FLOW CONDITIONS
2. R. G. Mayoral. HYDRODYNAMIC STABILITY AND BREAKDOWN OF THE VISCOUS REGIME FOR RIBLET SURFACES

3. V. I. Korobov. HYDRODYNAMIC FRICTION OF A PLATE WITH RIBLETTS AND THIN DAMPING COATING
4. F. Kramer, F. Thiele, E. Wassen. WAVY RIBLET DESIGN TO REDUCE FRICTION DRAG BY INDUCING LATERAL OSCILLATION
5. N. V. Nikitin, I. S. Vodopianov. TURBULENT DRAG REDUCTION BY SPANWISE RIBBED-WALL OSCILLATIONS
6. S. Isaev, G. Voropaiev, V. Grinchenko, A. Sudakov, V. Voskoboinik, N. Rozumnyuk. DRAG REDUCTION OF LIFTING SURFACES AT THE USE OF VORTICAL GENERATORS AS OVAL DIMPLES

11:20 – 11:40 Coffee-break

Flow separation control

11:40 – 13:00

7. C.-H. Bruneau, E. Creusé, D. Depeyras, P. Gilliéron and I. Mortazavi. ACTIVE FLOW CONTROL AROUND SIMPLIFIED GROUND VEHICLES
8. J. J. Wang, L. H. Feng, P. F. Zhang, R. Q. Shan. A NOVEL SYNTHETIC JET AND ITS APPLICATION IN FLOW CONTROL
9. N. S. Gorodetska, V. I. Nikishov, S. V. Pihur, V. V. Oleksiuk, L. V. Tkachenko. MODELING OF DEVELOPMENT OF FORCED LONGITUDINAL VORTICES IN BOUNDARY LAYER OVER CURVED SURFACE
10. T. S. Krasnopolskaya, V. M. Spector. WAVE INDUCED BY RADIAL VIBRATIONS OF THE VERTICAL CYLINDER

13:00 – 14:00 Lunch

High speed flow control

14:00 – 15:00

11. A. A. Prykhodko, O. B. Polevoy, A. A. Pilipenko. NUMERICAL SIMULATION OF SELF-SUSTAINED SHOCK OSCILLATIONS CONTROL WITH HEAT- AND MASS TRANSFER AT TRANSONIC AIRFOIL FLOW
12. O. B. Polevoy, A. A. Prykhodko. COMPARATIVE NUMERICAL INVESTIGATION OF SEPARATION CONTROL WITH HEAT- AND MASS TRANSFER FOR TWO- AND THREE DIMENSIONAL SUPERSONIC FLOWS
13. N. Gerasimov. PROBLEMS OF SUPERSONIC FLOWS PAST THIN BODIES IN THE PRESENCE OF PLASMA: LINEAR INVISCID APPROXIMATION

15:00 – 15:40 Discussions

15:40 – 16:00 Closing remarks

Posters:

1. A. R. Evseev, L. I. Maltsev, A. G. Malyuga and A. P. Belousov. THE MECHANISM OF INFLUENCE OF FLOW ORIENTATIONAL ORIENTATION ON EFFICIENCY OF THE BUBBLE METHOD FOR FRICTION REDUCTION
2. M. E. Camocardi, J. S. Delnero, J. Maracyn Di Leo, J. Colman, M. A. Martinez. ANALYSIS OF A GURNEY FLAP AS AN ACTIVE AND PASSIVE SYSTEM
3. G. A. Voropaiev, V. A. Voskoboinik, N. V. Rozumnyuk, A. V. Voskoboinik. FORMATION OF PAIR LONGITUDINAL VORTICES OVER CONVEX SURFACE WITH DIMPLED RELIEF