Alexander D Kosinov

List of Publications by Year
in descending order

132	920	687363 13	610901 24
papers	citations	h-index	g-index

132	132	132	124
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Experiments on the stability of supersonic laminar boundary layers. Journal of Fluid Mechanics, 1990, 219, 621.	3.4	153
2	Experiments on the Nonlinear Instability of Supersonic Boundary Layers. , 1994, , 196-205.		55
3	Experimental Investigation of Laminar-Turbulent Transition Process in Supersonic Boundary Layer Using Controlled Disturbances. Fluid Mechanics and Its Applications, 1996, , 17-26.	0.2	36
4	Impact of incident Mach wave on supersonic boundary layer. Thermophysics and Aeromechanics, 2016, 23, 43-48.	0.5	34
5	Evolution of wave packets in supersonic flat-plate boundary layer. Thermophysics and Aeromechanics, 2015, 22, 17-27.	0.5	33
6	An experimental study of generation of unstable disturbances on the leading edge of a plate AT M=2. Journal of Applied Mechanics and Technical Physics, 1997, 38, 45-51.	0.5	30
7	Linear development of controlled disturbances in the supersonic boundary layer on a swept wing at Mach 2. Physics of Fluids, 2016, 28, 064101.	4.0	24
8	Combined influence of coating permeability and roughness on supersonic boundary layer stability and transition. Journal of Fluid Mechanics, 2016, 798, 751-773.	3.4	23
9	Investigation of laminar-turbulent transition of supersonic boundary layer by scanning constant temperature hot-wire anemometer. AIP Conference Proceedings, 2018, , .	0.4	22
10	Method laminar-turbulent transition control of supersonic boundary layer on a swept wing. Thermophysics and Aeromechanics, 2007, 14, 337-341.	0.5	21
11	Resonance Interaction of Wave Trains in Supersonic Boundary Layer. Fluid Mechanics and Its Applications, 1996, , 379-388.	0.2	17
12	Constant temperature hot-wire measurements in a short duration supersonic wind tunnel. Aeronautical Journal, 2001, 105, 435-450.	1.6	16
13	Experimental study of mean and pulsation flow characteristics in the 2D/3D supersonic boundary layer behind flat roughness elements. Thermophysics and Aeromechanics, 2014, 21, 3-13.	0.5	16
14	Experimental Investigation of the Weak Shock Wave Influence on the Boundary Layer of a Flat Blunt Plate at the Mach Number 2.5. Fluid Dynamics, 2019, 54, 257-263.	0.9	14
15	Influence of distributed heavy-gas injection on stability and transition of supersonic boundary-layer flow. Physics of Fluids, 2019, 31, .	4.0	14
16	Hot-wire visualization of the evolution of localized wave packets in a supersonic flat-plate boundary layer. Journal of Visualization, 2017, 20, 549-557.	1.8	12
17	Experimental study of nonlinear processes in a swept-wing boundary layer at the mach number M=2. Journal of Applied Mechanics and Technical Physics, 2014, 55, 764-772.	0.5	11
18	Experimental study of the effects of couple weak waves on laminar-turbulent transition on attachment-line of a swept cylinder. AIP Conference Proceedings, 2016, , .	0.4	11

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19	Experimental study of effect of a couple of weak shock waves on boundary layer of the blunt flat plate. AIP Conference Proceedings, 2018, , .	0.4	11
20	Effect of unit Reynolds number on the laminar-turbulent transition on a swept wing in supersonic flow. Thermophysics and Aeromechanics, 2018, 25, 659-665.	0.5	11
21	The impact of weak shock waves on the flow in the boundary layer of a flat plate with a variable sweep angle of the leading edge. Thermophysics and Aeromechanics, 2019, 26, 803-809.	0.5	11
22	Evolution of localized artificial disturbance in 2D and 3D supersonic boundary layers. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2020, 234, 115-123.	1.3	11
23	On mechanisms of the action of weak shock waves on laminar-turbulent transition in supersonic boundary layer. AIP Conference Proceedings, 2017, , .	0.4	10
24	Development of Artificially Excited Disturbances in Supersonic Boundary Layer. , 1985, , 601-606.		10
25	Instability of a three-dimensional supersonic boundary layer. Journal of Applied Mechanics and Technical Physics, 1995, 36, 840-843.	0.5	9
26	The influence of surface porosity on the stability and transition of supersonic boundary layer on a flat plate. Thermophysics and Aeromechanics, 2010, 17, 259-268.	0.5	9
27	Linear evolution of controlled disturbances in the supersonic boundary layer on a swept wing. Fluid Dynamics, 2014, 49, 188-197.	0.9	9
28	Stability of supersonic boundary layer under the influence of heavy gas injection: experimental study. Thermophysics and Aeromechanics, 2018, 25, 183-190.	0.5	9
29	The influence of moderate angle-of-attack variation on disturbances evolution and transition to turbulence in supersonic boundary layer on swept wing. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2020, 234, 96-101.	1.3	9
30	An experimental study of the nonlinear evolution of instability waves on a flat plate for mach number M=3. Journal of Applied Mechanics and Technical Physics, 1997, 38, 265-270.	0.5	8
31	The evolution of mass flow and total temperature pulsations in flat plate boundary layer at M=2.5. AIP Conference Proceedings, 2017, , .	0.4	8
32	An effect of small angle of attack on disturbances evolution in swept wing boundary layer at Mach number M=2. AIP Conference Proceedings, 2018, , .	0.4	8
33	Hot-wire measurements of the evolution of total temperature and mass flow pulsations in supersonic boundary layer on flat plate with coating permeability. AIP Conference Proceedings, 2018, , .	0.4	8
34	The laminar-turbulent transition experiments in supersonic boundary layers. AIP Conference Proceedings, 2019, , .	0.4	8
35	Growth of artificially induced disturbances in a supersonic boundary layer. Fluid Dynamics, 1985, 19, 703-709.	0.9	7
36	Experimental study of evolution of disturbances in a supersonic boundary layer on a swept-wing model under controlled conditions. Journal of Applied Mechanics and Technical Physics, 2000, 41, 44-49.	0.5	7

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37	Stability and Transition on a Swept Cylinder in a Supersonic Flow. Journal of Applied Mechanics and Technical Physics, 2003, 44, 212-220.	0.5	7
38	Influence of porous-coating thickness on the stability and transition of flat-plate supersonic boundary layer. Thermophysics and Aeromechanics, 2012, 19, 555-560.	0.5	7
39	Implementation of a new thermal model and static calibration of a wedge-shaped hot-film probe in a constant-temperature mode. International Journal of Heat and Mass Transfer, 2018, 126, 1-9.	4.8	7
40	Experimental investigation of effect of an external wave on supersonic boundary layer of the blunt flat plate. AIP Conference Proceedings, 2019, , .	0.4	7
41	Instability of a Three-Dimensional Supersonic Boundary Layer. Fluid Mechanics and Its Applications, 1996, , 361-368.	0.2	7
42	â€œAnomalousâ€•nonlinear wave phenomena in a supersonic boundary layer. Journal of Applied Mechanics and Technical Physics, 1999, 40, 858-864.	0.5	6
43	EXPERIMENTAL INVESTIGATION OF THE SUPERSONIC BOUNDARY LAYER STABILITY ON A SWEPT WING AT MACH NUMBER M = 2. TsAGI Science Journal, 2011, 42, 1-12.	0.1	6
44	Experimental Study of Turbulence Beginning of Supersonic Boundary Layer on Swept Wing at Mach Numbers 2 â€“ 4. Journal of Physics: Conference Series, 2011, 318, 032018.	0.4	6
45	Hot-wire measurements of the evolution of total temperature and mass flow pulsations in a modulated 3D supersonic boundary layer. AIP Conference Proceedings, 2018, , .	0.4	6
46	Evolution of disturbances in a laminarized supersonic boundary layer on a swept wing. Journal of Applied Mechanics and Technical Physics, 2008, 49, 188-193.	0.5	5
47	Experiments on the Artificial Disturbance Evolution in 2D and 3D Spanwise Modulated Boundary Layers at Mach 2 and 2.5. Procedia IUTAM, 2015, 14, 48-57.	1.2	5
48	Numerical study of the interaction of the N-wave with the plate leading edge in the supersonic stream. AIP Conference Proceedings, 2017, , .	0.4	5
49	Experimental and numerical investigation of controlled disturbances development from two sources in supersonic boundary layer. Advances in Aerodynamics, 2019, 1, .	2.5	5
50	Influence of surface sublimation on the stability of the supersonic boundary layer and the laminarâ€“turbulent transition. Physics of Fluids, 2021, 33, 024101.	4.0	5
51	Experiments on the wave train excitation and wave interaction in spanwise modulated supersonic boundary layer. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 513-516.	0.2	5
52	Experiments on relative receptivity of three-dimensional supersonic boundary layer to controlled disturbances and its development. , 2013, , .		5
53	Experimental Study of the Weak Shock Wave Action on the Boundary Layer of a Plate at the Mach Number 2.5. Siberian Journal of Physics, 2019, 14, 46-55.	0.3	5
54	Comparative Measurements in M=2.54 Flow Using Constant-Temperature and Constant-Voltage Anemometery. , 2003, , .		4

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55	Joint permeability and roughness effect on the supersonic flat-plate boundary layer stability and transition. Fluid Dynamics, 2014, 49, 608-613.	0.9	4
56	The influence of flow parameters on the transition to turbulence in supersonic boundary layer on swept wing. AIP Conference Proceedings, 2016, , .	0.4	4
57	To the analysis of the natural pulsation development during laminar-turbulent transition in supersonic boundary layer. AIP Conference Proceedings, 2017, , .	0.4	4
58	The experimental study of the weak shock wave action on the boundary layer of the sweep flat plate. Journal of Physics: Conference Series, 2019, 1404, 012083.	0.4	4
59	Cross-correlation measurement of disturbance initiated by weak shock wave in the flat plate boundary layer with blunt leading edge at Mach 2. AIP Conference Proceedings, 2021, , .	0.4	4
60	Experimental study of the influence of external disturbances on the position of the laminar-turbulent transition on swept wings at M = 2. Thermophysics and Aeromechanics, 2021, 28, 319-325.	0.5	4
61	Experimental investigation of the wave structure of a supersonic boundary layer. Journal of Applied Mechanics and Technical Physics, 1987, 27, 730-734.	0.5	3
62	Experimental study of the influence of blunt leading edge of a flat plate on the growth of three-dimensional waves in supersonic flow. Journal of Applied Mechanics and Technical Physics, 1987, 28, 212-215.	0.5	3
63	Wave analysis of the evolution of a single wave packet in supersonic boundary layer. AIP Conference Proceedings, 2016, , .	0.4	3
64	To nonlinear disturbance interactions in 3D supersonic boundary-layer. AIP Conference Proceedings, 2016, , .	0.4	3
65	Excitation of localized wave packet in swept-wing supersonic boundary layer. MATEC Web of Conferences, 2017, 115, 02015.	0.2	3
66	Experimental and numerical investigation of the recovery ratio of a wedge-shaped hot-film probe. Thermophysics and Aeromechanics, 2017, 24, 187-202.	0.5	3
67	Investigation of the effect of heavy gas injection into a supersonic boundary layer on laminar-turbulent transition. Fluid Dynamics, 2017, 52, 769-776.	0.9	3
68	Visualization of interaction of Mach waves with a bow shock. AIP Conference Proceedings, 2017, , .	0.4	3
69	On introduction of controlled disturbances into a longitudinal vortex in a supersonic boundary layer. AIP Conference Proceedings, 2018, , .	0.4	3
70	Evolution of a localized wave packet in the boundary layer of the swept wing at M = 2. Journal of Physics: Conference Series, 2019, 1382, 012048.	0.4	3
71	The correlation of the pulsations of flow in the settling chamber with the pulsations of supersonic flow. Journal of Physics: Conference Series, 2019, 1404, 012074.	0.4	3
72	Experimental study of the laminar-turbulent transition on models of wings with subsonic and supersonic leading edge at M = 2. Journal of Physics: Conference Series, 2019, 1404, 012097.	0.4	3

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73	Experimental study of the impact of N-wave on heat transfer in a boundary layer of a flat plate at the Mach number 2. AIP Conference Proceedings, 2021, , .	0.4	3
74	Nonlinear Development of Waves in the Supersonic Boundary Layer. , 1995, , 181-188.		3
75	On Determination of the Mechanism of Mach Wave / Bow-Shock Interaction. Siberian Journal of Physics, 2017, 12, 20-27.	0.3	3
76	Stability of a supersonic boundary layer behind a fan of rarefaction waves. Journal of Applied Mechanics and Technical Physics, 1988, 30, 447-451.	0.5	2
77	Experimental study of stability of supersonic boundary layer on swept wing. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 379-384.	0.2	2
78	On the oblique breakdown mechanism in a supersonic boundary layer on a swept wing at Mach 2. AIP Conference Proceedings, 2017, , .	0.4	2
79	On the development of controlled stationary and travelling disturbances in the supersonic boundary layer of a swept wing. EPJ Web of Conferences, 2017, 159, 00024.	0.3	2
80	Regimes of flow turbulization near swept wing edge in hypersonic flow. AIP Conference Proceedings, 2018, , .	0.4	2
81	An Investigation of the Influence of the Parameters of a Pulse Discharge on Localized Disturbances Generated in a Supersonic Boundary Layer. Technical Physics Letters, 2019, 45, 242-245.	0.7	2
82	On the artificial wave packet development in a spanwise modulated boundary layer on the swept wing at Mach 2. AIP Conference Proceedings, 2020, , .	0.4	2
83	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. AIP Conference Proceedings, 2021, , .	0.4	2
84	Experimental Study of Supersonic Boundary Layer Receptivity in Controlled Conditions. , 2000, , 451-456.		2
85	Transition Control of Supersonic Boundary Layer on Flat Plate. Fluid Mechanics and Its Applications, 1999, , 323-328.	0.2	2
86	Influence of Small Angles of Attacks on the Laminar- Turbulent Transition on a Swept Wing at Mach Number M = 2. Siberian Journal of Physics, 2017, 12, 35-40.	0.3	2
87	Experimental study of excitation and evolution of contrarotating longitudinal vortices in a boundary layer of a flat plate at M = 2. AIP Conference Proceedings, 2020, , .	0.4	2
88	Experimental study of heat transfer in the boundary layer of a flat plate with the impact of weak shock waves on the leading edge. AIP Conference Proceedings, 2020, , .	0.4	2
89	Experimental investigation of the development of harmonic disturbances in the boundary layer on a flat plate at mach number M=4. Fluid Dynamics, 1991, 25, 854-858.	0.9	1
90	Influence of a fan of rarefaction waves on the development of a disturbance in a supersonic boundary layer. Journal of Applied Mechanics and Technical Physics, 1992, 33, 191-193.	0.5	1

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91	Influence of coating permeability and roughness on supersonic boundary layer stability. AIP Conference Proceedings, 2016, , .	0.4	1
92	On the artificial disturbance evolution in 2D/3D spanwise modulated supersonic boundary layers. AIP Conference Proceedings, 2016, , .	0.4	1
93	Experimental investigation of influence of heavy gas injection into supersonic boundary layer on laminar-turbulent transition. AIP Conference Proceedings, 2017, , .	0.4	1
94	The effect of small angle of attack on the laminar-turbulent transition in boundary layer on swept wing at Mach number M=2. AIP Conference Proceedings, 2017, , .	0.4	1
95	The wave packet development in the 3D supersonic boundary layers. AIP Conference Proceedings, 2018, , .	0.4	1
96	Experimental study of the natural disturbance development in a supersonic flat plate boundary layer with a wavy surface. AIP Conference Proceedings, 2019, , .	0.4	1
97	Experimental investigation of freestream disturbances across an oblique shock wave via modal analysis with a wedge hot-film. Thermophysics and Aeromechanics, 2019, 26, 789-802.	0.5	1
98	Investigation of laminar-turbulent transition of supersonic boundary layer by scanning constant temperature hot-wire anemometer at Mach 2-4. AIP Conference Proceedings, 2021, , .	0.4	1
99	An effect of unit Reynolds number on the laminar-turbulent transition on 3D swept wing with Ï‡ = 72Â° at M = 2. AIP Conference Proceedings, 2021, , .	0.4	1
100	Experimental Studies of the Impact of Periodic Modulation of the Flow on the De-velopment of Disturbances in the Boundary Layer of a Swept Wing at a M = 2.5. Siberian Journal of Physics, 2021, 16, 81-90.	0.3	1
101	On correspondence of laminar-turbulent transition processes in natural and in controlled supersonic experiments on flat plate. , 2000, , 493-498.		1
102	Experimental study of stability and transition of supersonic boundary layer on swept wing at mach number 2-4. , 2013, , .		1
103	Influence of Heavy Gas Blowing into the Wall Layer of Supersonic Boundary-Layer on Its Transition. Siberian Journal of Physics, 2017, 12, 50-56.	0.3	1
104	Influence of small attack angles on the transition on the wing with the subsonic leading edge at M=2. AIP Conference Proceedings, 2020, , .	0.4	1
105	Correlation measurement of supersonic flow pulsations and boundary layer disturbances in wind tunnel at Mach 2. AIP Conference Proceedings, 2020, , .	0.4	1
106	Development of small perturbations in a slightly nonparallel supersonic flow. Journal of Applied Mechanics and Technical Physics, 1982, 23, 398-401.	0.5	0
107	Wave structure of artificial perturbations in a supersonic boundary layer on a plate. Journal of Applied Mechanics and Technical Physics, 1990, 31, 250-252.	0.5	0
108	Structure of Acoustic Radiation from an Artificially Excited Supersonic Boundary Layer. International Journal of Aeroacoustics, 2005, 4, 353-362.	1.3	0

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109	Experiments on the wave train development in 3D boundary layer at Mach 2. Journal of Physics: Conference Series, 2011, 318, 032011.	0.4	0
110	Linear and nonlinear development of controlled disturbances in the supersonic boundary layer on a swept wing at Mach 2.5. Journal of Physics: Conference Series, 2016, 754, 022005.	0.4	0
111	Propagation of the wave packet in a boundary layer of swept wing at Mach number 2. AIP Conference Proceedings, 2017, , .	0.4	0
112	On the nonlinear development of controlled disturbances in the supersonic boundary layer of a swept wing. AIP Conference Proceedings, 2017, , .	0.4	0
113	Experimental investigation of influence of tangential and normal heavy-gas blowing on the supersonic boundary-layer stability. AIP Conference Proceedings, 2018, , .	0.4	0
114	Influence of heavy-gas injection into supersonic boundary layer on its stability to controlled disturbances. AIP Conference Proceedings, 2019, , .	0.4	0
115	Evolution of artificial disturbances in swept wing supersonic boundary layer. Journal of Physics: Conference Series, 2019, 1404, 012084.	0.4	0
116	The controlled periodic impact on the longitudinal vortex in the boundary layer at Mach 2. Journal of Physics: Conference Series, 2019, 1404, 012094.	0.4	0
117	â€œN-waveâ€•propagation in supersonic flow at flow past the flat plate with sharp edge. Journal of Physics: Conference Series, 2019, 1404, 012102.	0.4	0
118	Experimental investigation of natural disturbances of a supersonic boundary layer on a swept-wing model with periodic roughness at Mach 2.5. AIP Conference Proceedings, 2021, , .	0.4	0
119	Experimental study of influence of heavy gas injection into boundary layer on perforated model surface at Mach number 2 on its stability to controlled disturbances. AIP Conference Proceedings, 2021, , .	0.4	0
120	Effect of surface sublimation on boundary-layer stability. AIP Conference Proceedings, 2021, , .	0.4	0
121	Research on the Influence of the Unit Reynoldâ€™s Number on the Characteristics of N-Waves at M = 2.5. Siberian Journal of Physics, 2021, 16, 53-64.	0.3	0
122	On Anomalous Wave Processes in Supersonic Boundary Layer. , 2000, , 463-468.		0
123	Development of Artificial Disturbances in the Boundary Layer on a Plate and in the Wake Behind It at Supersonic Free-Flow Speed. , 2000, , 457-462.		0
124	Experimental Study of the Supersonic Boundary Layer Stability on the Cone-Cylinder Model. , 1990, , 239-249.		0
125	On the relative â€œreceptivityâ€•of twoand three-dimensional supersonic boundary layers to stationary disturbances at mach 2. , 2015, , .		0
126	A Study of the Pulsations of Flow in the Settling Chamber and Their Relationship with the Pulsations of the Supersonic Flow. Siberian Journal of Physics, 2019, 14, 77-85.	0.3	0

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127	Achievements and problems of research on the development of controlled disturbances from a glow discharge in supersonic boundary layers. AIP Conference Proceedings, 2020, , .	0.4	0
128	Experimental study of natural disturbances of a supersonic boundary layer on a swept-wing model with periodic roughness. AIP Conference Proceedings, 2020, , .	0.4	0
129	Flow inhomogeneity influence on the wave packet development in a swept wing boundary layer at Mach number of 2.0. AIP Conference Proceedings, 2020, , .	0.4	0
130	Evolution of mass flow and total temperature pulsations in flat-plate and swept-wing boundary layers at Mach 2 and 2.5. Journal of Physics: Conference Series, 2020, 1677, 012033.	0.4	0
131	Development of Disturbances in the Supersonic Boundary Layer under Helium Injection from the Surface. Siberian Journal of Physics, 2022, 16, 41-47.	0.3	0
132	Effect of Small Angles of Attack on Laminar-Turbulent Transition in the Supersonic Boundary Layer on a Swept Wing with Ï‡ = 72Â°. Fluid Dynamics, 2022, 57, 30-36.	0.9	0