Yasumasa Ito

List of Publications by Year
in descending order

99 papers	1,407 citations	361413 20 h-index	395702 33 g-index
100 all docs	100 docs citations	100 times ranked	799 citing authors

#	Article	IF	Citations
1	Zinc morphology in zincâ€“nickel flow assisted batteries and impact on performance. Journal of Power Sources, 2011, 196, 2340-2345.	7.8	129
2	Turbulent mixing of passive scalar near turbulent and non-turbulent interface in mixing layers. Physics of Fluids, 2015, 27, .	4.0	68
3	An indicator of zinc morphology transition in flowing alkaline electrolyte. Journal of Power Sources, 2012, 211, 119-128.	7.8	63
4	Vortex stretching and compression near the turbulent/non-turbulent interface in a planar jet. Journal of Fluid Mechanics, 2014, 758, 754-785.	3.4	52
5	On invariants in grid turbulence at moderate Reynolds numbers. Journal of Fluid Mechanics, 2014, 738, 378-406.	3.4	51
6	Relevance of turbulence behind the single square grid to turbulence generated by regular- and multiscale-grids. Physics of Fluids, 2014, 26, .	4.0	49
7	Turbulent/non-turbulent interfaces detected in DNS of incompressible turbulent boundary layers. Physics of Fluids, 2018, 30, 035102.	4.0	49
8	Enstrophy and passive scalar transport near the turbulent/non-turbulent interface in a turbulent planar jet flow. Physics of Fluids, 2014, 26, .	4.0	43
9	Development of turbulence behind the single square grid. Physics of Fluids, 2014, 26, .	4.0	42
10	An attempt to improve accuracy of higherâ€•order statistics and spectra in direct numerical simulation of incompressible wall turbulence by using the compact schemes for viscous terms. International Journal for Numerical Methods in Fluids, 2013, 73, 509-522.	1.6	39
11	Lagrangian properties of the entrainment across turbulent/non-turbulent interface layers. Physics of Fluids, 2016, 28, 031701.	4.0	35
12	Turbulent/non-turbulent interfaces in temporally evolving compressible planar jets. Physics of Fluids, 2018, 30, .	4.0	31
13	Effects of grid geometry on non-equilibrium dissipation in grid turbulence. Physics of Fluids, 2017, 29, .	4.0	28
14	Turbulent/nonturbulent interfaces in high-resolution direct numerical simulation of temporally evolving compressible turbulent boundary layers. Physical Review Fluids, 2018, 3, .	2.5	28
15	Role of an isolated eddy near the turbulent/non-turbulent interface layer. Physical Review Fluids, 2017, 2, .	2.5	27
16	Non-uniform electrodeposition of zinc on the (0001) plane. Thin Solid Films, 2015, 590, 207-213.	1.8	26
17	A localized turbulent mixing layer in a uniformly stratified environment. Journal of Fluid Mechanics, 2018, 849, 245-276.	3.4	25
18	Direct numerical simulation of incompressible turbulent boundary layers and planar jets at high Reynolds numbers initialized with implicit large eddy simulation. Computers and Fluids, 2019, 194, 104314.	2.5	25

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19	Geometrical aspects of turbulent/non-turbulent interfaces with and without mean shear. Physics of Fluids, 2017, 29, 085105.	4.0	22
20	Crystal Orientation Dependence of Precipitate Structure of Electrodeposited Li Metal on Cu Current Collectors. Crystal Growth and Design, 2017, 17, 2379-2385.	3.0	21
21	Effects of stable stratification on turbulent/nonturbulent interfaces in turbulent mixing layers. Physical Review Fluids, 2016, 1, .	2.5	20
22	Distorted turbulence and secondary flow near right-angled plates. Journal of Fluid Mechanics, 2011, 668, 446-479.	3.4	19
23	Finite response time of shock wave modulation by turbulence. Physics of Fluids, 2017, 29, .	4.0	18
24	Integral invariants and decay of temporally developing grid turbulence. Physics of Fluids, 2018, 30, 105111.	4.0	18
25	Changes in divergence-free grid turbulence interacting with a weak spherical shock wave. Physics of Fluids, 2017, 29, 065114.	4.0	17
26	Mixing model with multi-particle interactions for Lagrangian simulations of turbulent mixing. Physics of Fluids, 2016, 28, .	4.0	16
27	Enstrophy production and dissipation in developing grid-generated turbulence. Physics of Fluids, 2016, 28, .	4.0	16
28	Non-dimensional energy dissipation rate near the turbulent/non-turbulent interfacial layer in free shear flows and shear free turbulence. Journal of Fluid Mechanics, 2019, 875, 321-344.	3.4	16
29	The relation between shearing motions and the turbulent/non-turbulent interface in a turbulent planar jet. Physics of Fluids, 2021, 33, 055126.	4.0	16
30	Reactive scalar field near the turbulent/non-turbulent interface in a planar jet with a second-order chemical reaction. Physics of Fluids, 2014, 26, .	4.0	15
31	Mixing and chemical reaction at high Schmidt number near turbulent/nonturbulent interface in planar liquid jet. Physics of Fluids, 2015, 27, .	4.0	15
32	Amplification and attenuation of shock wave strength caused by homogeneous isotropic turbulence. Physics of Fluids, 2018, 30, 035105.	4.0	15
33	Application of spectral proper orthogonal decomposition to velocity and passive scalar fields in a swirling coaxial jet. Physics of Fluids, 2020, 32, .	4.0	15
34	Turbulent entrainment across turbulent-nonturbulent interfaces in stably stratified mixing layers. Physical Review Fluids, 2017, 2, .	2.5	15
35	VISUALIZATION OF TURBULENT REACTIVE JET BY USING DIRECT NUMERICAL SIMULATION. International Journal of Modeling, Simulation, and Scientific Computing, 2013, 04, 1341001.	1.4	13
36	On the evolution of the invariants of the velocity gradient tensor in single-square-grid-generated turbulence. Physics of Fluids, 2015, 27, .	4.0	13

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37	Characteristics of shearing motions in incompressible isotropic turbulence. Physical Review Fluids, 2020, 5, .	2.5	13
38	LESâ€“Lagrangian particle method for turbulent reactive flows based on the approximate deconvolution model and mixing model. Journal of Computational Physics, 2015, 294, 127-148.	3.8	12
39	Spatial evolution of the helical behavior and the 2/3 power-law in single-square-grid-generated turbulence. Fluid Dynamics Research, 2016, 48, 021404.	1.3	12
40	Extreme events and non-Kolmogorov spectra in turbulent flows behind two side-by-side square cylinders. Journal of Fluid Mechanics, 2019, 874, 677-698.	3.4	12
41	Statistics of overpressure fluctuations behind a weak shock wave interacting with turbulence. Physics of Fluids, 2019, 31, .	4.0	12
42	Scale-by-scale kinetic energy budget near the turbulent/nonturbulent interface. Physical Review Fluids, 2020, 5, .	2.5	12
43	Implicit large eddy simulation of a scalar mixing layer in fractal grid turbulence. Physica Scripta, 2016, 91, 074007.	2.5	11
44	Multi-particle dispersion during entrainment in turbulent free-shear flows. Journal of Fluid Mechanics, 2016, 805, .	3.4	11
45	Three-dimensional visualization of destruction events of turbulent momentum transfer in a plane jet. Physics of Fluids, 2019, 31, 105114.	4.0	11
46	Characteristics of small-scale shear layers in a temporally evolving turbulent planar jet. Journal of Fluid Mechanics, 2021, 920, .	3.4	11
47	Rapid distortion theory analysis on the interaction between homogeneous turbulence and a planar shock wave. Journal of Fluid Mechanics, 2016, 802, 108-146.	3.4	10
48	Simultaneous measurement of velocity and pressure near the turbulent/non-turbulent interface of a planar turbulent jet. Experimental Thermal and Fluid Science, 2016, 75, 137-146.	2.7	10
49	Gradients estimation from random points with volumetric tensor in turbulence. Journal of Computational Physics, 2017, 350, 518-529.	3.8	10
50	Energy transfer in turbulent flows behind two side-by-side square cylinders. Journal of Fluid Mechanics, 2020, 903, .	3.4	9
51	Solenoidal linear forcing for compressible, statistically steady, homogeneous isotropic turbulence with reduced turbulent Mach number oscillation. Physics of Fluids, 2021, 33, .	4.0	9
52	Dual-plane turbulent jets and their non-Gaussian velocity fluctuations. Physical Review Fluids, 2018, 3, .	2.5	9
53	Modeling of molecular diffusion and thermal conduction with multi-particle interaction in compressible turbulence. Physics of Fluids, 2018, 30, .	4.0	8
54	Multi-particle model of coarse-grained scalar dissipation rate with volumetric tensor in turbulence. Journal of Computational Physics, 2019, 389, 128-146.	3.8	8

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55	Statistical analysis of deformation of a shock wave propagating in a local turbulent region. Physics of Fluids, 2020, 32, .	4.0	8
56	Turbulent characteristics and energy transfer in the far field of active-grid turbulence. Physics of Fluids, 2021, 33, .	4.0	8
57	Experimental investigation of interactions between turbulent cylinder wake and spherical shock wave. Physics of Fluids, 2020, 32, 016101.	4.0	7
58	Implicit large eddy simulation of passive scalar transfer in compressible planar jet. International Journal for Numerical Methods in Fluids, 2021, 93, 1183-1198.	1.6	7
59	LESâ€“Lagrangianâ€particlesâ€simulation of turbulent reactive flows at high Sc number using approximate deconvolution model. AICHE Journal, 2016, 62, 2912-2922.	3.6	6
60	Experimental investigation on destruction of Reynolds stress in a plane jet. Experiments in Fluids, 2019, 60, 1.	2.4	6
61	Experimental and numerical investigation of compressibility effects on velocity derivative flatness in turbulence. Physics of Fluids, 2022, 34, .	4.0	6
62	Modification of hemodynamics in basilar artery aneurysm by the single and Y stent placement1. Technology and Health Care, 2017, 25, 831-842.	1.2	5
63	Statistical properties of spherical shock waves propagating through grid turbulence, turbulent cylinder wake, and laminar flow. Physica Scripta, 2019, 94, 044004.	2.5	5
64	Passive scalar mixing near turbulent/non-turbulent interface in compressible turbulent boundary layers. Physica Scripta, 2019, 94, 044002.	2.5	5
65	Multi-particle models of molecular diffusion for Lagrangian simulation coupled with LES for passive scalar mixing in compressible turbulence. Computers and Fluids, 2021, 221, 104886.	2.5	5
66	Vertical confinement effects on a fully developed turbulent shear layer. Physics of Fluids, 2022, 34, .	4.0	5
67	The effects of inflow conditions on reactiveâ€“diffusive mechanism in a shear mixing layer at low Reynolds number. Experimental Thermal and Fluid Science, 2014, 55, 166-173.	2.7	4
68	Dynamics and geometry of developing planar jets based on the invariants of the velocity gradient tensor. Journal of Hydrodynamics, 2015, 27, 894-906.	3.2	4
69	Experimental study of shock wave modulation caused by velocity and temperature fluctuations in cylinder wakes. Physical Review Fluids, 2021, 6, .	2.5	3
70	Turbulence generated by an array of opposed piston-driven synthetic jet actuators. Experiments in Fluids, 2022, 63, 1.	2.4	3
71	Conditional statistics near the turbulent/non-turbulent interface in a planar liquid jet with a chemical reaction. Transactions of the JSME (in Japanese), 2014, 80, FE0228-FE0228.	0.2	2
72	Concentration measurement in a planar liquid jet with a chemical reaction by using the improved concentration measurement system based on the light absorption spectrometric method. Journal of Fluid Science and Technology, 2014, 9, JFST0041-JFST0041.	0.6	2

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73	Investigation of the turbulent energy transport in a plane turbulent jet by applyning POD-LSE complementary method. Transactions of the JSME (in Japanese), 2014, 80, FE0010-FE0010.	0.2	2
74	Promotion of Chemical Reactions by a Grid in a Shear Mixing Layer. Chemical Engineering and Technology, 2014, 37, 2103-2108.	1.5	2
75	Intestinal flow after anastomotic operations in neonates. Computers in Biology and Medicine, 2020, 118, 103471.	7.0	2
76	Power spectrum of high Schmidt number scalar in a turbulent jet at a moderate Reynolds number. Experiments in Fluids, 2021, 62, 1.	2.4	2
77	Statistical properties of a model of a turbulent patch arising from a breaking internal wave. Physics of Fluids, 2021, 33, 055107.	4.0	2
78	The meandering bend features of large-scale structures and the related coherent structures. International Journal of Heat and Fluid Flow, 2022, 93, 108915.	2.4	2
79	DNS study on the development of boundary layer with heat transfer under the effects of external and internal disturbances. Journal of Fluid Science and Technology, 2014, 9, JFST0005-JFST0005.	0.6	1
80	Influence of Reynolds number on coherent structure, flow transition, and evolution of the plane jet. Journal of Fluid Science and Technology, 2014, 9, JFST0013-JFST0013.	0.6	1
81	Simultaneous measurement of velocity-gradient and fluctuating static pressure in a turbulent planar jet. Transactions of the JSME (in Japanese), 2017, 83, 17-00004-17-00004.	0.2	1
82	Experimental Study on the Mixing of High-Schmidt-Number Scalar in Regular/Fractal Grid Turbulence. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2013, 79, 304-316.	0.2	0
83	Numerical Simulation of Reactive Planar Jet by Combining the Probability Density Function Method with Direct Numerical Simulation. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2013, 79, 2434-2445.	0.2	0
84	Numerical study on a boundary layer with heat transfer affected by a wake of a square bar. Journal of Fluid Science and Technology, 2014, 9, JFST0061-JFST0061.	0.6	0
85	Effects of the cylinder wake in a freestream on joint velocity statistics of a turbulent boundary layer. Transactions of the JSME (in Japanese), 2015, 81, 14-00582-14-00582.	0.2	0
86	Analysis and Application of Decaying Turbulence with Initial Fractal Geometry. , 2017, , .		0
87	Joint statistics between velocity-gradient and fluctuating pressure in a turbulent planar jet. Transactions of the JSME (in Japanese), 2018, 84, 17-00430-17-00430.	0.2	0
88	Overpressure Fluctuation behind Spherical Shock Wave Propagating in Grid-generated Turbulence. , 2019, , .		0
89	Effect of Schmidt number in planar jet with chemical reaction by DNS. Transactions of the JSME (in) Tj ETQq1 1 0.784314 rgBT /Overlo	0.2	0
90	1406 Visualization and Measurement of Shock-Vortex Interaction using PIV Techniques. The Proceedings of the Fluids Engineering Conference, 2014, 2014, _1406-1_-_1406-2_.	0.0	0

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91	158 Study on scalar diffusion and mixing in grid turbulence by PIV-PLIF measurement. The Proceedings of Conference of Tokai Branch, 2015, 2015.64, _158-1_-_158-2_.	0.0	0
92	148 Numerical Study on Coaxial Round Jets with Swirl. The Proceedings of Conference of Tokai Branch, 2015, 2015.64, _148-1_-_148-2_.	0.0	0
93	Development of a jet influenced by half delta-wing tabs. The Proceedings of Conference of Tokai Branch, 2018, 2018.67, 310.	0.0	0
94	Cross wavelet analysis of Reynolds stress transport in turbulent planar jet. Transactions of Visualization Soc of Japan, 2018, 38, 26-35.	0.2	0
95	Study on scale-by-scale transport mechanism for energy and scalar in grid-generated turbulence. The Proceedings of Conference of Tokai Branch, 2019, 2019.68, 215.	0.0	0
96	High spatial resolution/high SN ratio measurement of concentration by optical fiber LIF method. Transactions of Visualization Soc of Japan, 2019, 39, 28-34.	0.2	0
97	Numerical Study on Scalar Transport in Single-Square-Grid-generated Turbulence. The Proceedings of Conference of Tokai Branch, 2019, 2019.68, 216.	0.0	0
98	Semi in-situ measurement of zincate ion concentration near zinc anode using background-oriented Schlieren technique. Physical Review Research, 2019, 1, .	3.6	0
99	The effect of an artificial large-scale structure on bursting phenomenon in turbulent boundary layer. The Proceedings of the Fluids Engineering Conference, 2021, 2021, OS02-16.	0.0	0