

# Genta Kawahara

## List of Publications by Year in descending order

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59  
papers

1,569  
citations

471509

17  
h-index

289244

40  
g-index

59  
all docs

59  
docs citations

59  
times ranked

752  
citing authors

#	ARTICLE	IF	CITATIONS
1	The ultimate state of turbulent permeable-channel flow. <i>Journal of Fluid Mechanics</i> , 2022, 931, .	3.4	1
2	Steady thermal convection representing the ultimate scaling. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2022, 380, 20210037.	3.4	3
3	Ultimate heat transfer in $\epsilon$ -wall-bounded <sup>TM</sup> convective turbulence. <i>Journal of Fluid Mechanics</i> , 2021, 914, .	3.4	9
4	Multi-scale steady solution for Rayleigh-Bénard convection. <i>Journal of Fluid Mechanics</i> , 2021, 914, .	3.4	11
5	Bifurcation structure of unstable periodic orbits in plane Couette flow with the Smagorinsky model. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	2
6	Bimodal vortex solutions on a sphere. <i>Physica D: Nonlinear Phenomena</i> , 2020, 406, 132438.	2.8	0
7	Can preferential concentration of finite-size particles in plane Couette turbulence be reproduced with the aid of equilibrium solutions?. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	2
8	A vortex interaction mechanism for generating energy and enstrophy fluctuations in high-symmetric turbulence. <i>Journal of Fluid Mechanics</i> , 2019, 874, 639-676.	3.4	4
9	Global, nonparametric, noniterative optimization of time-averaged quantities under small, time-varying forcing: An application to a thermal convection field. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2019, 76, 185-202.	0.9	0
10	Time-Periodic Inertial Range Dynamics. <i>Physical Review Letters</i> , 2019, 123, 134502.	7.8	9
11	The onset of transient turbulence in minimal plane Couette flow. <i>Journal of Fluid Mechanics</i> , 2019, 862, .	3.4	19
12	Optimal heat transfer enhancement in plane Couette flow. <i>Journal of Fluid Mechanics</i> , 2018, 835, 1157-1198.	3.4	17
13	Transitions in large eddy simulation of box turbulence. <i>European Physical Journal: Special Topics</i> , 2018, 227, 463-480.	2.6	4
14	Maximal heat transfer between two parallel plates. <i>Journal of Fluid Mechanics</i> , 2018, 851, .	3.4	15
15	Hierarchy of antiparallel vortex tubes in spatially periodic turbulence at high Reynolds numbers. <i>Physical Review Fluids</i> , 2017, 2, .	2.5	50
16	Unstable periodic orbits in plane Couette flow with the Smagorinsky model. <i>Journal of Physics: Conference Series</i> , 2016, 708, 012003.	0.4	4
17	Second-order approximation to forced oscillations of thermal convection under small time-varying forcing. <i>International Journal of Heat and Mass Transfer</i> , 2016, 96, 145-153.	4.8	2
18	Optimization of forced convection heat transfer by using variational principle. <i>The Proceedings of Mechanical Engineering Congress Japan</i> , 2016, 2016, J0530102.	0.0	0

#	ARTICLE	IF	CITATIONS
19	The Action and Plan in School/Graduate School of Engineering Science, Osaka University. The Proceedings of Mechanical Engineering Congress Japan, 2016, 2016, W261004.	0.0	0
20	Turbulent heat and momentum transfer in Rayleigh-Bénard-Poiseuille flow. The Proceedings of Mechanical Engineering Congress Japan, 2016, 2016, J0530101.	0.0	0
21	Localized turbulence structures in transitional rectangular-duct flow. Journal of Fluid Mechanics, 2015, 782, 368-379.	3.4	16
22	J0550203 Onset of chaotic reversals in thermal convection. The Proceedings of Mechanical Engineering Congress Japan, 2015, 2015, _J0550203--_J0550203-.	0.0	0
23	HOMOCLINIC ORBITS IN TRANSITIONAL PLANE COUETTE FLOW. Journal of Computational Fluids Engineering, 2015, 20, 58-62.	0.0	0
24	Turbulent mixing in a precessing sphere. Physics of Fluids, 2014, 26, 115106.	4.0	18
25	Quasi-cyclic evolution of turbulence driven by a steady force in a periodic cube. Fluid Dynamics Research, 2014, 46, 061413.	1.3	17
26	J0570204 Maximization of dissimilarity between momentum and heat transfer. The Proceedings of Mechanical Engineering Congress Japan, 2014, 2014, _J0570204--_J0570204-.	0.0	0
27	10.1063/1.4901449.1., 2014, , .		0
28	0506 Direct numerical simulation of turbulent channel flow at high Reynolds number. The Proceedings of the Fluids Engineering Conference, 2013, 2013, _0506-01_-_0506-02_.	0.0	0
29	0513 Transient turbulence in rectangular-duct flows. The Proceedings of the Fluids Engineering Conference, 2013, 2013, _0513-01_-_0513-03_.	0.0	0
30	0504 An edge state in transitional square-duct flow. The Proceedings of the Fluids Engineering Conference, 2013, 2013, _0504-01_-_0504-03_.	0.0	0
31	0509 An edge state and relaminarization in transitional pipe flow. The Proceedings of the Fluids Engineering Conference, 2013, 2013, _0509-01_-_0509-03_.	0.0	0
32	S051032 Modulation of turbulence by surfactant in a precessing sphere. The Proceedings of Mechanical Engineering Congress Japan, 2013, 2013, _S051032-1-_S051032-5.	0.0	0
33	Forced oscillations, optimal forcing and resonance of thermal convection under small, time-varying forcing. International Journal of Heat and Mass Transfer, 2012, 55, 6618-6631.	4.8	3
34	The Significance of Simple Invariant Solutions in Turbulent Flows. Annual Review of Fluid Mechanics, 2012, 44, 203-225.	25.0	240
35	0116 Large-eddy simulation of developed turbulence in hyperbolic stagnation-point flow. The Proceedings of the Fluids Engineering Conference, 2012, 2012, 35-36.	0.0	0
36	On Matrix-Free Computation of 2D Unstable Manifolds. SIAM Journal of Scientific Computing, 2011, 33, 25-44.	2.8	22

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37	Homoclinic Tangle on the Edge of Shear Turbulence. <i>Physical Review Letters</i> , 2011, 107, 114501.	7.8	45
38	Reynolds number dependence of mean flow structure in square duct turbulence – CORRIGENDUM. <i>Journal of Fluid Mechanics</i> , 2010, 653, 537-537.	3.4	2
39	Reynolds number dependence of mean flow structure in square duct turbulence. <i>Journal of Fluid Mechanics</i> , 2010, 644, 107-122.	3.4	140
40	Traveling-waves consistent with turbulence-driven secondary flow in a square duct. <i>Physics of Fluids</i> , 2010, 22, .	4.0	29
41	Resonant Thermal Convections in a Square Cavity Induced by Heat-Flux Vibration on the Bottom Wall. <i>Numerical Heat Transfer; Part A: Applications</i> , 2010, 58, 20-40.	2.1	11
42	Average and extremal properties of heat transfer and shear stress on a wall surface in Rayleigh-Bénard convection. <i>Heat and Mass Transfer</i> , 2009, 46, 153-165.	2.1	2
43	F08 Nonparametric sensitivity analysis and its application to optimal control on the unsteady convective heat transfer problem. <i>The Proceedings of Conference of Kyushu Branch</i> , 2008, 2008, 227-228.	0.0	0
44	Marginally turbulent flow in a square duct. <i>Journal of Fluid Mechanics</i> , 2007, 588, 153-162.	3.4	97
45	Internal gravity wave resonance of thermal convection fields in rectangular cavities with heat-flux vibration (effects of aspect ratio on the fields). <i>Heat Transfer - Asian Research</i> , 2007, 36, 158-171.	2.8	3
46	Internal Gravity Wave Resonance of Thermal Convection Fields in Rectangular Cavities with Heat-Flux Vibration (Effects of Aspect Ratio on the Fields). 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2006, 72, 1789-1796.	0.2	0
47	Unstable Periodic Motion Embedded in Turbulent Flows. 880-02 Nihon Kikai Gakkai RonbunshÅ« Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2006, 72, 2870-2877.	0.2	0
48	Periodic motion representing isotropic turbulence. <i>Fluid Dynamics Research</i> , 2006, 38, 19-46.	1.3	46
49	Laminarization of minimal plane Couette flow: Going beyond the basin of attraction of turbulence. <i>Physics of Fluids</i> , 2005, 17, 041702.	4.0	51
50	Characterization of near-wall turbulence in terms of equilibrium and –bursting– solutions. <i>Physics of Fluids</i> , 2005, 17, 015105.	4.0	94
51	Energy dissipation in spiral vortex layers wrapped around a straight vortex tube. <i>Physics of Fluids</i> , 2005, 17, 055111.	4.0	14
52	Generation and sustenance mechanisms of coherent vortical structures in rotating shear turbulence of zero-mean-absolute vorticity. <i>Fluid Dynamics Research</i> , 2004, 35, 237-254.	1.3	8
53	Linear instability of a corrugated vortex sheet – a model for streak instability. <i>Journal of Fluid Mechanics</i> , 2003, 483, 315-342.	3.4	35
54	Periodic motion embedded in plane Couette turbulence: regeneration cycle and burst. <i>Journal of Fluid Mechanics</i> , 2001, 449, 291-300.	3.4	329

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55	Turbulent shear flow over active and passive porous surfaces. Journal of Fluid Mechanics, 2001, 442, 89-117.	3.4	150
56	Vorticity Stretching and Energy Dissipation around a Straight Vortex Tube in a Uniform Shear Flow.. JSME International Journal Series B, 2001, 44, 369-377.	0.3	1
57	Three-Dimensional Vortical Structures of a Backward-Facing Step Flow at Moderate Reynolds Numbers. Journal of the Physical Society of Japan, 2001, 70, 3550-3555.	1.6	7
58	Wrap, tilt and stretch of vorticity lines around a strong thin straight vortex tube in a simple shear flow. Journal of Fluid Mechanics, 1997, 353, 115-162.	3.4	37
59	Application of Three-Layer Model Analysis to Single-Component Two-Phase Critical Flow through a Converging Nozzle. (Comparison of the Experimental Results for Steam-Water Mixture and Carbon) Tj ETQq1 1 0.784314 rgBT /Overloc	0.4	1