

# Tetsuo Hatsuda

## List of Publications by Year in descending order

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101  
papers

5,666  
citations

87888

38  
h-index

74163

75  
g-index

103  
all docs

103  
docs citations

103  
times ranked

2002  
citing authors

#	ARTICLE	IF	CITATIONS
1	QCD sum rules for vector mesons in the nuclear medium. <i>Physical Review C</i> , 1992, 46, R34-R38.	2.9	551
2	$J/\psi$ and $\chi$ in the Deconfined Plasma from Lattice QCD. <i>Physical Review Letters</i> , 2004, 92, 012001.	7.8	404
3	Maximum entropy analysis of the spectral functions in lattice QCD. <i>Progress in Particle and Nuclear Physics</i> , 2001, 46, 459-508.	14.4	390
4	Nuclear Force from Lattice QCD. <i>Physical Review Letters</i> , 2007, 99, 022001.	7.8	368
5	Fluctuation effects in hot quark matter: Precursors of chiral transition at finite temperature. <i>Physical Review Letters</i> , 1985, 55, 158-161.	7.8	285
6	Bound $\langle H \rangle$ Dibaryon in Flavor SU(3) Limit of Lattice QCD. <i>Physical Review Letters</i> , 2011, 106, 162002.	7.8	233
7	Theoretical Foundation of the Nuclear Force in QCD and Its Applications to Central and Tensor Forces in Quenched Lattice QCD Simulations. <i>Progress of Theoretical Physics</i> , 2010, 123, 89-128.	2.0	182
8	Hadron properties in the nuclear medium. <i>Reviews of Modern Physics</i> , 2010, 82, 2949-2990.	45.6	173
9	New Critical Point Induced By the Axial Anomaly in Dense QCD. <i>Physical Review Letters</i> , 2006, 97, 122001.	7.8	164
10	Complex Heavy-Quark Potential at Finite Temperature from Lattice QCD. <i>Physical Review Letters</i> , 2012, 108, 162001.	7.8	162
11	Hadron-hadron interactions from imaginary-time Nambu-Bethe-Salpeter wave function on the lattice. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 712, 437-441.	4.1	155
12	Two-baryon potentials and H-dibaryon from 3-flavor lattice QCD simulations. <i>Nuclear Physics A</i> , 2012, 881, 28-43.	1.5	153
13	New Neutron Star Equation of State with Quark-Hadron Crossover. <i>Astrophysical Journal</i> , 2019, 885, 42.	4.5	107
14	Fate of the Tetraquark Candidate $Z_c$ Dibaryon from Lattice QCD. <i>Physical Review Letters</i> , 2018, 120, 212001.	7.8	98
15	Phase structure, collective modes, and the axial anomaly in dense QCD. <i>Physical Review D</i> , 2007, 76, .	4.7	87
16	Most Strange Dibaryon from Lattice QCD. <i>Physical Review Letters</i> , 2018, 120, 212001.	7.8	87
17	Baryon-Baryon Interactions in the Flavor SU(3) Limit from Full QCD Simulations on the Lattice. <i>Progress of Theoretical Physics</i> , 2010, 124, 591-603.	2.0	86
18	$\hat{\chi}$ and $N\hat{\chi}$ interactions from lattice QCD near the physical point. <i>Nuclear Physics A</i> , 2020, 998, 121737.	1.5	86

#	ARTICLE	IF	CITATIONS
19	$\mathbb{N}^{\mathbb{C}}$ dibaryon from lattice QCD near the physical point. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 792, 284-289.	4.1	80
20	Nambu–Jona-Lasinio model of dense three-flavor matter with axial anomaly: The low temperature critical point and BEC-BCS diquark crossover. Physical Review D, 2010, 81, .	4.7	74
21	Hyperon–nucleon force from lattice QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 673, 136-141.	4.1	73
22	Exploring Three-Nucleon Forces in Lattice QCD. Progress of Theoretical Physics, 2012, 127, 723-738.	2.0	71
23	In-medium pion and partial restoration of chiral symmetry. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 670, 109-113.	4.1	64
24	Photons from Pb-Pb collisions at ultrarelativistic energies. Physical Review C, 2001, 63, .	2.9	62
25	Thermodynamics of $SU(3)$ gauge theory via the energy-momentum tensor under gradient flow. Physical Review D, 2014, 89, .	4.7	62
26	Spin-2 $\mathbb{N}^{\mathbb{C}}$ dibaryon from lattice QCD. Nuclear Physics A, 2014, 928, 89-98.	1.5	57
27	Equation of state for $SU(3)$ gauge theory via the energy-momentum tensor under gradient flow. Physical Review D, 2016, 94, .	4.7	57
28	Are two nucleons bound in lattice QCD for heavy quark masses? Consistency check with $L^3$ finite volume formula. Physical Review D, 2017, 96, .	4.7	54
29	Equation of state and heavy-quark free energy at finite temperature and density in two flavor lattice QCD with Wilson quark action. Physical Review D, 2010, 82, .	4.7	52
30	Nucleon-Nucleon Potential and Its Non-Locality in Lattice QCD. Progress of Theoretical Physics, 2011, 125, 1225-1240.	2.0	49
31	First lattice study of low-energy charmonium-hadron interaction. Physical Review D, 2006, 74, .	4.7	48
32	Mirage in temporal correlation functions for baryon-baryon interactions in lattice QCD. Journal of High Energy Physics, 2016, 2016, 1.	4.7	48
33	Electric and magnetic screening masses at finite temperature from generalized Polyakov-line correlations in two-flavor lattice QCD. Physical Review D, 2010, 81, .	4.7	46
34	Probing multistrange dibaryons with proton-omega correlations in high-energy heavy ion collisions. Physical Review C, 2016, 94, .	2.9	46
35	Fixed scale approach to equation of state in lattice QCD. Physical Review D, 2009, 79, .	4.7	44
36	Phase structure of finite temperature QCD in the heavy quark region. Physical Review D, 2011, 84, .	4.7	44

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37	Coupled-channel approach to strangeness $S = -2$ baryon-bayron interactions in lattice QCD. Progress of Theoretical and Experimental Physics, 2015, 2015, 113B01-113B01.	6.6	43
38	Heavy-quark free energy, Debye mass, and spatial string tension at finite temperature in two flavor lattice QCD with Wilson quark action. Physical Review D, 2007, 75, .	4.7	40
39	Spin orbit force from lattice QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 735, 19-24.	4.1	37
40	Probing $\langle \mathbb{I} \otimes \mathbb{I} \rangle$ and $\langle \mathbb{I} \otimes \mathbb{I} \rangle$ dibaryons with femtosopic correlations in relativistic heavy-ion collisions. Physical Review C, 2020, 101, .	2.9	36
41	Equation of State for Nucleonic Matter and its Quark Mass Dependence from the Nuclear Force in Lattice QCD. Physical Review Letters, 2013, 111, 112503.	7.8	35
42	Systematics of the HAL QCD potential at low energies in lattice QCD. Physical Review D, 2019, 99, .	4.7	35
43	$\rho$ $\hat{z}$ $\hat{z}$ Correlation in Relativistic Heavy Ion Collisions with Nucleon-Hyperon Interaction from Lattice QCD. Nuclear Physics A, 2017, 967, 856-859.	1.5	33
44	Construction of energy-independent potentials above inelastic thresholds in quantum field theories. Physical Review D, 2013, 87, .	4.7	32
45	Thermal fluctuations of gauge fields and first order phase transitions in color superconductivity. Physical Review D, 2004, 69, .	4.7	30
46	Time-dependent heavy-quark potential at finite temperature from gauge-gravity duality. Physical Review D, 2013, 87, .	4.7	30
47	Dibaryon with Highest Charm Number near Unitarity from Lattice QCD. Physical Review Letters, 2021, 127, 072003.	7.8	29
48	Distribution of stress tensor around static quark anti-quark from Yang Mills gradient flow. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 789, 210-214.	4.1	28
49	Baryon interactions from lattice QCD with physical quark masses Nuclear forces and $\hat{z}$ $\hat{z}$ forces. EPJ Web of Conferences, 2018, 175, 05009.	0.3	26
50	Possible Lightest Hyperon $\Lambda(1520)$ and $\Lambda(1520)$ Hypernucleus with Modern $\langle \mathbb{I} \otimes \mathbb{I} \rangle$ Interactions. Physical Review Letters, 2020, 124, 092501.	7.8	26
51	Thermal phase transitions and gapless quark spectra in quark matter at high density. Physical Review D, 2005, 71, .	4.7	25
52	Consistency between Lüscher's finite volume method and HAL QCD method for two-baryon systems in lattice QCD. Journal of High Energy Physics, 2019, 2019, 1.	4.7	25
53	Correlations of the energy-momentum tensor via gradient flow in SU(3) Yang-Mills theory at finite temperature. Physical Review D, 2017, 96, .	4.7	24
54	Functional renormalization group and Kohn-Sham scheme in density functional theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 779, 436-440.	4.1	23

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55	Phase shifts in $\pi\pi$ -scattering from two lattice approaches. Journal of High Energy Physics, 2013, 2013, 1.	4.7	21
56	Femtoscopic study of coupled-channels $N\bar{N}$ interactions. Physical Review C, 2022, 105, .	2.9	20
57	Spectral continuity in dense QCD. Physical Review D, 2008, 78, .	4.7	19
58	Baryon-baryon interactions at short distances: constituent quark model meets lattice QCD. European Physical Journal A, 2020, 56, 1.	2.5	19
59	Superfluid Phase Transitions and Effects of Thermal Pairing Fluctuations in Asymmetric Nuclear Matter. Scientific Reports, 2019, 9, 18477.	3.3	18
60	Simultaneous softening of $\sigma$ and $\eta$ mesons associated with chiral restoration. Physical Review C, 2002, 66, .	2.9	17
61	Application of Fixed Scale Approach to Static Quark Free Energies in Quenched and 2 + 1 Flavor Lattice QCD with Improved Wilson Quark Action. Progress of Theoretical Physics, 2012, 128, 955-970.	2.0	16
62	Omega-Omega interaction from 2+1-flavor lattice quantum chromodynamics. Progress of Theoretical and Experimental Physics, 2015, 2015, 071B01.	6.6	15
63	Lattice quantum chromodynamics and baryon-baryon interactions. Frontiers of Physics, 2018, 13, 1.	5.0	14
64	QCD sum rule for open strange meson $K^*K$ in nuclear matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 792, 160-169.	4.1	14
65	Renormalization group flows of the $N$ -component Abelian Higgs model. Physical Review D, 2017, 96, .	4.7	13
66	$\Sigma(2380)$ dibaryon from lattice QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 811, 135935.	4.1	13
67	HADRONS ABOVE $T_c$ . International Journal of Modern Physics A, 2006, 21, 688-693.	1.5	10
68	Higgs mechanism with type-II Nambu-Goldstone bosons at finite chemical potential. Physical Review D, 2011, 83, .	4.7	10
69	Validity of the color dipole approximation for diffractive production of heavy quarkonium. Physical Review D, 2000, 62, .	4.7	9
70	Optimized two-baryon operators in lattice QCD. Physical Review D, 2022, 105, .	4.7	6
71	Fixed point structure of the Abelian Higgs model. Physical Review D, 2016, 93, .	4.7	5
72	Distribution of energy-momentum tensor around a static quark in the deconfined phase of SU(3) Yang-Mills theory. Physical Review D, 2020, 102, .	4.7	5

#	ARTICLE	IF	CITATIONS
73	Low-mass dilepton production through transport processes in a quark-gluon plasma. Physical Review C, 2012, 85, .	2.9	4
74	Low mass dileptons from Pb + Au collisions at 158 A.GeV. Pramana - Journal of Physics, 2003, 60, 1073-1077.	1.8	3
75	In-medium spectral functions from lattice QCD. European Physical Journal C, 2005, 43, 45-49.	3.9	3
76	TOPOLOGICAL SUSCEPTIBILITY AT FINITE TEMPERATURE IN A RANDOM MATRIX MODEL. Modern Physics Letters A, 2008, 23, 2465-2468.	1.2	3
77	LATTICE QCD CALCULATION OF NUCLEAR FORCES. Modern Physics Letters A, 2008, 23, 2281-2284.	1.2	3
78	Wandering in Color-Space - Why Is the Life of Pentaquark so Long?. Acta Physica Hungarica A Heavy Ion Physics, 2005, 22, 61-68.	0.4	2
79	FROM LATTICE QCD TO NUCLEAR FORCE. Modern Physics Letters A, 2008, 23, 2265-2272.	1.2	2
80	Dynamical pattern selection of growing cellular mosaic in fish retina. Physical Review E, 2017, 96, 032416.	2.1	2
81	Flows of multicomponent scalar models with U(1) gauge symmetry. Physical Review D, 2019, 100, .	4.7	2
82	Femtoscopic Study of $\Xi$ Interaction and Search for the H Dibaryon State Around the $\Xi$ Threshold. Few-Body Systems, 2021, 62, 1.	1.5	2
83	STUDY OF HYPERON-NUCLEON POTENTIAL FROM LATTICE QCD. International Journal of Modern Physics E, 2010, 19, 2442-2447.	1.0	1
84	Strangeness nuclear physics from lattice QCD. Nuclear Physics A, 2013, 914, 211-219.	1.5	1
85	Lattice Quantum Chromodynamics. Lecture Notes in Physics, 2017, , 55-91.	0.7	1
86	Chiral-Super Interplay in QCD. Progress of Theoretical Physics Supplement, 2007, 168, 422-425.	0.1	0
87	LATTICE QCD SIMULATION OF HYPERON-NUCLEON POTENTIAL. Modern Physics Letters A, 2008, 23, 2285-2288.	1.2	0
88	HYPERON-NUCLEON FORCES CALCULATED FROM LATTICE QCD. International Journal of Modern Physics A, 2009, 24, 2110-2117.	1.5	0
89	Phase Structure of Dense QCD. Progress of Theoretical Physics Supplement, 2010, 186, 417-426.	0.1	0
90	BEC-BCS crossover driven by the axial anomaly in the NJL model. , 2010, , .		0

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91	QCD Thermodynamics at Zero and Finite Densities with Improved Wilson Quarks. Progress of Theoretical Physics Supplement, 2010, 186, 556-562.	0.1	0
92	From Yukawa and Nambu to Lattice Nuclear Force. , 2011, , .		0
93	New approach to lattice QCD thermodynamics from Yang-Mills gradient flow. Nuclear Physics A, 2014, 931, 1125-1129.	1.5	0
94	The Quark-Gluon Plasma.. Journal of Plasma and Fusion Research, 2002, 78, 1285-1293.	0.4	0
95	COLOUR SUPERCONDUCTIVITY IN DENSE QCD AND STRUCTURE OF COOPER PAIRS. , 2002, , .		0
96	THERMAL PHASE TRANSITION OF DENSE QCD. , 2004, , .		0
97	THERMAL PHASE TRANSITION OF DENSE QCD. , 2004, , .		0
98	DYNAMICS OF PENTAQUARK IN COLOR MOLECULAR DYNAMICS SIMULATION. , 2005, , .		0
99	STUDY OF HYPERON-NUCLEON POTENTIAL FROM LATTICE QCD. , 2009, , .		0
100	Lattice Nuclear Force. , 2011, , 171-185.		0
101	Baryon Interactions from Lattice QCD. , 2019, , .		0