

# Johannes P Hecker Denschlag

## List of Publications by Year in descending order

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Version: 2024-02-01

60  
papers

8,120  
citations

147801

31  
h-index

144013

57  
g-index

60  
all docs

60  
docs citations

60  
times ranked

3677  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin-Conservation Propensity Rule for Three-Body Recombination of Ultracold Rb Atoms. Physical Review Letters, 2022, 128, 133401.	7.8	7
2	Life and death of a cold $\text{BaRb}^+$ molecule inside an ultracold cloud of Rb atoms. Physical Review Research, 2021, 3, .	2.5	8
3	Towards photoassociation processes of ultracold rubidium trimers. Physical Review A, 2021, 103, .	2.5	8
4	Long-Range Atom-Ion Rydberg Molecule: A Novel Molecular Binding Mechanism. Atoms, 2021, 9, 34.	1.6	18
5	Direct observation of swap cooling in atom-ion collisions. New Journal of Physics, 2021, 23, 065008.	2.9	9
6	Second sound in the crossover from the Bose-Einstein condensate to the Bardeen-Cooper-Schrieffer superfluid. Nature Communications, 2021, 12, 7074.	12.8	5
7	Optical control of atom-ion collisions using a Rydberg state. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 134005.	1.5	9
8	Pair correlations in the normal phase of an attractive Fermi gas. New Journal of Physics, 2020, 22, 083008.	2.9	11
9	Observation of spin-orbit-dependent electron scattering using long-range Rydberg molecules. Physical Review Research, 2020, 2, .	3.6	12
10	Minimizing rf-induced excess micromotion of a trapped ion with the help of ultracold atoms. Applied Physics B: Lasers and Optics, 2019, 125, 1.	2.2	7
11	Pair fraction in a finite-temperature Fermi gas on the BEC side of the BCS-BEC crossover. Physical Review A, 2019, 99, .	2.5	9
12	Hyperfine Magnetic Substate Resolved State-to-State Chemistry. Physical Review Letters, 2019, 123, 253401.	7.8	9
13	Reaction kinetics of ultracold molecule-molecule collisions. Nature Communications, 2018, 9, 5244.	12.8	18
14	Cavity-controlled formation of ultracold molecules. New Journal of Physics, 2018, 20, 123015.	2.9	11
15	Inelastic collisions of ultracold triplet Rb <sub>2</sub> molecules in the rovibrational ground state. Nature Communications, 2017, 8, 14854.	12.8	17
16	Level structure of deeply bound levels of the $\text{Rb}_2^+$ state of $\text{Rb}^+$ ion. Physical Review Research, 2017, 1, 013001.	2.5	4
17	State-to-state chemistry for three-body recombination in an ultracold rubidium gas. Science, 2017, 358, 921-924.	12.6	61
18	BEC in a lattice: early experiments. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 220502.	1.5	1

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19	Holographic method for site-resolved detection of a 2D array of ultracold atoms. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	3
20	Reactive two-body and three-body collisions of $\text{Ba} + \text{Rb}$ an ultracold Rb gas. Physical Review A, 2016, 94, .	3.1	31
21	A toy model for a diatomic molecule. Physica Scripta, 2016, 91, 083012.	2.5	2
22	Energy Scaling of Cold Atom-Atom-Ion Three-Body Recombination. Physical Review Letters, 2016, 116, 193201.	7.8	60
23	Mixing of $^{+}$ and $^{-}$ observed in the hyperfine and Zeeman structure of ultracold $\text{Rb}_2$ molecules. New Journal of Physics, 2015, 17, 083032.	2.9	8
24	Ultrakalte Moleküle in Reih und Glied. Physik in Unserer Zeit, 2015, 46, 60-61.	0.0	0
25	Polarizability of ultracold molecules in the rovibrational ground state of. New Journal of Physics, 2015, 17, 065019.	2.9	14
26	Probing the Axis Alignment of an Ultracold Spin-polarized $\text{Rb}_2$ Molecule. Physical Review Letters, 2014, 113, 233004.	7.8	20
27	Long-term drifts of stray electric fields in a Paul trap. Applied Physics B: Lasers and Optics, 2014, 114, 275-281.	2.2	25
28	Cold atom ion experiments in hybrid traps. Contemporary Physics, 2014, 55, 33-45.	1.8	114
29	Population distribution of product states following three-body recombination in an ultracold atomic gas. Nature Physics, 2013, 9, 512-517.	16.7	49
30	Minimization of ion micromotion using ultracold atomic probes. Applied Physics Letters, 2013, 102, .	3.3	21
31	An apparatus for immersing trapped ions into an ultracold gas of neutral atoms. Review of Scientific Instruments, 2012, 83, 053108.	1.3	32
32	Single Ion as a Three-Body Reaction Center in an Ultracold Atomic Gas. Physical Review Letters, 2012, 109, 123201.	7.8	88
33	Dynamics of a Cold Trapped Ion in a Bose-Einstein Condensate. Physical Review Letters, 2010, 105, 133202.	7.8	271
34	Dark state experiments with ultracold, deeply-bound triplet molecules. Faraday Discussions, 2009, 142, 271.	3.2	6
35	Ultracold Triplet Molecules in the Rovibrational Ground State. Physical Review Letters, 2008, 101, 133005.	7.8	333
36	Cruising through molecular bound-state manifolds with radiofrequency. Nature Physics, 2008, 4, 223-226.	16.7	52

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37	Finite-Temperature Collective Dynamics of a Fermi Gas in the BEC-BCS Crossover. Physical Review Letters, 2007, 99, 150403.	7.8	63
38	Powered by symmetry. Nature, 2007, 448, 422-423.	27.8	1
39	Long distance transport of ultracold atoms using a 1D optical lattice. New Journal of Physics, 2006, 8, 159-159.	2.9	85
40	Repulsively bound atom pairs in an optical lattice. Nature, 2006, 441, 853-856.	27.8	491
41	Inducing an optical Feshbach resonance via stimulated Raman coupling. Physical Review A, 2005, 71, .	2.5	85
42	Publisher's Note: Inducing an optical Feshbach resonance via stimulated Raman coupling [Phys. Rev. A71, 033403 (2005)]. Physical Review A, 2005, 71, .	2.5	0
43	Precise Determination of Li6 Cold Collision Parameters by Radio-Frequency Spectroscopy on Weakly Bound Molecules. Physical Review Letters, 2005, 94, 103201.	7.8	234
44	Crossover from a Molecular Bose-Einstein Condensate to a Degenerate Fermi Gas. Physical Review Letters, 2004, 92, 120401.	7.8	593
45	Observation of the Pairing Gap in a Strongly Interacting Fermi Gas. Science, 2004, 305, 1128-1130.	12.6	708
46	Collective Excitations of a Degenerate Gas at the BEC-BCS Crossover. Physical Review Letters, 2004, 92, 203201.	7.8	507
47	Tuning the Scattering Length with an Optically Induced Feshbach Resonance. Physical Review Letters, 2004, 93, 123001.	7.8	471
48	Bose-Einstein Condensation of Molecules. Science, 2003, 302, 2101-2103.	12.6	989
49	Pure Gas of Optically Trapped Molecules Created from Fermionic Atoms. Physical Review Letters, 2003, 91, 240402.	7.8	268
50	Photoassociation of Sodium in a Bose-Einstein Condensate. Physical Review Letters, 2002, 88, 120403.	7.8	147
51	A Bose-Einstein condensate in an optical lattice. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 3095-3110.	1.5	274
52	Magnetic Field Control of Elastic Scattering in a Cold Gas of Fermionic Lithium Atoms. Physical Review Letters, 2002, 89, 273202.	7.8	61
53	Imaging the Phase of an Evolving Bose-Einstein Condensate Wave Function. Physical Review Letters, 2000, 85, 2040-2043.	7.8	91
54	Generating Solitons by Phase Engineering of a Bose-Einstein Condensate. Science, 2000, 287, 97-101.	12.6	1,129

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55	Temporal, Matter-Wave-Dispersion Talbot Effect. Physical Review Letters, 1999, 83, 5407-5411.	7.8	195
56	Guiding Neutral Atoms with a Wire. Physical Review Letters, 1999, 82, 2014-2017.	7.8	170
57	A neutral atom and a wire: towards mesoscopic atom optics. Applied Physics B: Lasers and Optics, 1999, 69, 291-301.	2.2	59
58	Probing a Singular Potential with Cold Atoms: A Neutral Atom and a Charged Wire. Physical Review Letters, 1998, 81, 737-741.	7.8	91
59	Scattering a neutral atom from a charged wire. Europhysics Letters, 1997, 38, 405-410.	2.0	33
60	Tracking a Single Ion in an Ultracold Gas. Physics Magazine, 0, 14, .	0.1	0