

# Gabriel C Spalding

## List of Publications by Year in descending order

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Version: 2024-02-01

70  
papers

3,768  
citations

279798

23  
h-index

214800

47  
g-index

73  
all docs

73  
docs citations

73  
times ranked

3308  
citing authors

#	ARTICLE	IF	CITATIONS
1	Microfluidic sorting in an optical lattice. <i>Nature</i> , 2003, 426, 421-424.	27.8	1,279
2	Computer-generated holographic optical tweezer arrays. <i>Review of Scientific Instruments</i> , 2001, 72, 1810.	1.3	390
3	Critical-state model for harmonic generation in high-temperature superconductors. <i>Physical Review B</i> , 1989, 40, 10936-10945.	3.2	241
4	Applications of spatial light modulators in atom optics. <i>Optics Express</i> , 2003, 11, 158.	3.4	175
5	Mechanical Evidence of the Orbital Angular Momentum to Energy Ratio of Vortex Beams. <i>Physical Review Letters</i> , 2012, 108, 194301.	7.8	143
6	Optical tweezers: the next generation. <i>Physics World</i> , 2002, 15, 31-35.	0.0	140
7	Three-dimensional arrays of optical bottle beams. <i>Optics Communications</i> , 2003, 225, 215-222.	2.1	119
8	Optical trapping of three-dimensional structures using dynamic holograms. <i>Optics Express</i> , 2003, 11, 3562.	3.4	118
9	Manipulation and filtration of low index particles with holographic Laguerre-Gaussian optical trap arrays. <i>Optics Express</i> , 2004, 12, 593.	3.4	117
10	Extended-area optically induced organization of microparticles on a surface. <i>Applied Physics Letters</i> , 2005, 86, 031106.	3.3	98
11	Evolution of a colloidal critical state in an optical pinning potential landscape. <i>Physical Review B</i> , 2002, 66, .	3.2	92
12	Phase separation of photogenerated carriers and photoinduced superconductivity in high-T <sub>c</sub> materials. <i>Physical Review B</i> , 1992, 45, 4964-4977.	3.2	86
13	Optically Anisotropic Colloids of Controllable Shape. <i>Advanced Materials</i> , 2005, 17, 680-684.	21.0	76
14	Acoustic Tractor Beam. <i>Physical Review Letters</i> , 2014, 112, 174302.	7.8	74
15	Nanofabrication with holographic optical tweezers. <i>Review of Scientific Instruments</i> , 2002, 73, 1956-1957.	1.3	61
16	Resolution limits of quantum ghost imaging. <i>Optics Express</i> , 2018, 26, 7528.	3.4	51
17	Colloidal sorting in dynamic optical lattices. <i>Journal of Optics</i> , 2007, 9, S134-S138.	1.5	43
18	Letters: optically transparent piezoelectric transducer for ultrasonic particle manipulation. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2014, 61, 389-391.	3.0	43

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19	Video recording true single-photon double-slit interference. American Journal of Physics, 2016, 84, 671-677.	0.7	42
20	Rotational Dynamics and Heating of Trapped Nanovaterite Particles. ACS Nano, 2016, 10, 11505-11510.	14.6	39
21	Reversal of orbital angular momentum arising from an extreme Doppler shift. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3800-3803.	7.1	35
22	The reconstruction of optical angular momentum after distortion in amplitude, phase and polarization. Journal of Optics, 2004, 6, S235-S238.	1.5	33
23	Temperature Dependence of the Penetration Depth of $\text{YBa}_{2}\text{Cu}_{3}\text{O}_{7-x}$ Films near $T_c$ . Europhysics Letters, 1995, 32, 573-578.	2.0	29
24	Light sheet microscopy with acoustic sample confinement. Nature Communications, 2019, 10, 669.	12.8	25
25	Fabrication of high- $T_c$ superconductors using ozone-assisted molecular beam epitaxy. Thin Solid Films, 1992, 216, 14-20.	1.8	23
26	Observation of image pair creation and annihilation from superluminal scattering sources. Science Advances, 2016, 2, e1501691.	10.3	17
27	Ghost Imaging. Optics and Photonics News, 2016, 27, 38.	0.5	17
28	Force measurement on microspheres in an optical standing wave. Journal of the Optical Society of America B: Optical Physics, 2008, 25, 763.	2.1	16
29	Experimental Limits of Ghost Diffraction: Popper's Thought Experiment. Scientific Reports, 2018, 8, 13183.	3.3	14
30	Holographic Optical Tweezers. , 2008, , 139-168.		13
31	Anomalous magnetoresistance of ultrathin films of $\text{DyBa}_2\text{Cu}_3\text{O}_{7-x}$ near the superconductor-insulator transition. Physical Review B, 1993, 47, 11619-11622.	3.2	10
32	New method for fabricating ultra-narrow metallic wires. Applied Physics Letters, 1994, 65, 2740-2742.	3.3	9
33	Enhanced particle transport in an oscillating sinusoidal optical potential. New Journal of Physics, 2009, 11, 103017.	2.9	9
34	Range of interactions: An experiment in atomic and magnetic force microscopy. American Journal of Physics, 1999, 67, 905-908.	0.7	8
35	Dynamic control of defects in a two-dimensional optically assisted assembly. New Journal of Physics, 2006, 8, 70-70.	2.9	8
36	Real-time 3D video utilizing a compressed sensing time-of-flight single-pixel camera. , 2016, , .		8

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37	The High- $T_c$ Superconductor $\text{Bi}_{2-x}\text{Sr}_x\text{CaCu}_2\text{O}_{7-x}$ As a Superconducting Superlattice. <i>Europhysics Letters</i> , 1992, 20, 721-726.	2.0	7
38	Amorphous Ge substrates: Active or passive participants in electrical transport in ultrathin metal films?. <i>Physica B: Condensed Matter</i> , 1994, 194-196, 2347-2348.	2.7	6
39	Barrier technology for $\text{DyBa}_2\text{Cu}_3\text{O}_{7-x}$ junctions and related structures. <i>IEEE Transactions on Magnetics</i> , 1991, 27, 3090-3093.	2.1	5
40	Pair Breaking by Spin-Disorder Scattering at the Antiferromagnetic Transition of the $\text{Dy}^{3+}$ Sublattice of $\text{DyBa}_2\text{Cu}_3\text{O}_7$ Films. <i>Physical Review Letters</i> , 1994, 73, 2752-2755.	7.8	5
41	Near-field optical manipulation by using evanescent waves and surface plasmon polaritons. , 2005, 5930, 342.		4
42	Hybrid optical and acoustic force based sorting. , 2014, , .		4
43	Natural buffer layer in $\text{DyBa}_2\text{Cu}_3\text{O}_7$ films grown on Si by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 1991, 70, 5697-5699.	2.5	3
44	Microfluidic optical sorting: particle selection in an optical lattice. , 2004, , .		3
45	A sonic screwdriver: Acoustic angular momentum transfer for ultrasonic manipulation. , 2011, , .		3
46	Fast localized wavefront correction using area-mapped phase-shift interferometry. <i>Optics Letters</i> , 2011, 36, 2892.	3.3	3
47	Quantum magnetoresistance fluctuations in an amorphous metal. <i>Physical Review B</i> , 1991, 43, 12267-12280.	3.2	2
48	Classes of superconductor-insulator transitions in high- $T_c$ films. <i>Physica B: Condensed Matter</i> , 1994, 194-196, 2321-2322.	2.7	2
49	Defect-free optical assembly of polystyrene spheres. , 2004, , .		2
50	Guiding and trapping microparticles in an extended surface field. , 2004, , .		2
51	Detachment of <i>Dunaliella tertiolecta</i> Microalgae from a Glass Surface by a Near-Infrared Optical Trap. <i>Sensors</i> , 2020, 20, 5656.	3.8	2
52	Studies of biflagellated microalgae adhesion using an optical trap system. , 2018, , .		2
53	Compound geometric resonances in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_x$ single crystals. <i>Physica B: Condensed Matter</i> , 1994, 194-196, 2233-2234.	2.7	1
54	Numerical analysis of waveguide-enhanced optical bistability. <i>Optical and Quantum Electronics</i> , 2003, 35, 1357-1366.	3.3	1

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55	Biophotonics. Optics and Photonics News, 2004, 15, 19.	0.5	1
56	Sorting via injection of particle streams into an optical lattice. , 2005, , .		1
57	Optical separation of particles based on a dynamic interferometer. , 2006, 6326, 275.		1
58	Force measurement and optical assisted particle separation in an optical standing wave. , 2007, , .		1
59	The sonic screwdriver: a model system for study of wave angular momentum. , 2011, , .		1
60	Acoustic Bessel beam with combined optical trapping. , 2012, , .		1
61	Rotational dynamics and heating of trapped nanovaterite particles (Conference Presentation). , 2016, , .		1
62	Rotational dynamics and heating of trapped nanovaterite particles. , 2017, , .		1
63	Twisting waves increase the visibility of nonlinear behaviour. New Journal of Physics, 2020, 22, 063021.	2.9	1
64	First-Photon 3D Imaging with a Single-Pixel Camera. , 2016, , .		1
65	The interplay between antiferromagnetism and superconductivity in disordered ultrathin high-Tc films. Physica A: Statistical Mechanics and Its Applications, 1993, 200, 287-295.	2.6	0
66	Tailored optical landscapes for biological and colloidal sciences. , 2004, , .		0
67	Colloidal traffic in static and dynamic optical lattices. , 2006, , .		0
68	Mapping out tractor beams: topological angular momentum and reduced axial flux; gradient versus non-conservative forces. , 2013, , .		0
69	Notice of Removal: A few twists regarding the momentum of shaped beams. , 2017, , .		0
70	Motility assessment of green biflagellated microalgae in an optical trap using back focal plane interferometry. , 2019, , .		0