Marlan O Scully

List of Publications by Year
in descending order

56	1,051	394421	477307
papers	citations	19	29
		h-index	g-index

57	57	57	1289
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	In vivo diagnostics of early abiotic plant stress response via Raman spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3393-3396.	7.1	116
2	Synthesis of antisymmetric spin exchange interaction and chiral spin clusters in superconducting circuits. Nature Physics, 2019, 15, 382-386.	16.7	58
3	Quantum Interference between Light Sources Separated by 150 Million Kilometers. Physical Review Letters, 2019, 123, 080401.	7.8	57
4	Quantum optics approach to radiation from atoms falling into a black hole. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8131-8136.	7.1	48
5	Bohr model and dimensional scaling analysis of atoms and molecules. International Reviews in Physical Chemistry, 2008, 27, 665-723.	2.3	42
6	Quantum plasmonic control of trions in a picocavity with monolayer WS ₂. Science Advances, 2019, 5, eaau8763.	10.3	39
7	Two-level masers as heat-to-work converters. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9941-9944.	7.1	38
8	Label-free sensing of cells with fluorescence lifetime imaging: The quest for metabolic heterogeneity. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	35
9	Enhancing sensitivity of lateral flow assay with application to SARS-CoV-2. Applied Physics Letters, 2020, 117, 120601.	3.3	34
10	Giant Chemical Surface Enhancement of Coherent Raman Scattering on MoS₂. ACS Photonics, 2018, 5, 4960-4968.	6.6	28
11	Transformation of a single-photon field into bunches of pulses. Physical Review A, 2015, 92, .	2.5	27
12	Quantum statistics of a single-atom Scovilâ€“Schulz-DuBois heat engine. Physical Review A, 2017, 96, .	2.5	26
13	Fiber-Optic Quantum Thermometry with Germanium-Vacancy Centers in Diamond. ACS Photonics, 2019, 6, 1690-1693.	6.6	26
14	Laser spectroscopic technique for direct identification of a single virus I: FASTER CARS. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27820-27824.	7.1	25
15	Noise-robust computational ghost imaging with pink noise speckle patterns. Physical Review A, 2021, 104, .	2.5	25
16	Polariton-Assisted Cooperativity of Molecules in Microcavities Monitored by Two-Dimensional Infrared Spectroscopy. Journal of Physical Chemistry Letters, 2019, 10, 4448-4454.	4.6	24
17	Experimental observation of carrier-envelope-phase effects by multicycle pulses. Physical Review A, 2011, 83, .	2.5	23
18	Spatially-Resolved Photoluminescence of Monolayer MoS₂ under Controlled Environment for Ambient Optoelectronic Applications. ACS Applied Nano Materials, 2018, 1, 6226-6235.	5.0	23

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19	Spatially offset Raman microspectroscopy of highly scattering tissue: theory and experiment. Journal of Modern Optics, 2015, 62, 97-101.	1.3	21
20	Lightweight Raman spectroscope using time-correlated photon-counting detection. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12315-12320.	7.1	19
21	Attosecond Pulse Amplification in a Plasma-Based X-Ray Laser Dressed by an Infrared Laser Field. Physical Review Letters, 2019, 123, 243903.	7.8	19
22	Atom lithography with subwavelength resolution via Rabi oscillations. Physical Review A, 2013, 87, .	2.5	18
23	Nuclear Quantum Memory and Time Sequencing of a Single <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î³</mml:mi></mml:math> Photon. Physical Review Letters, 2019, 123, 250504.	7.8	18
24	Nonlinear spin currents. Physical Review B, 2020, 102, .	3.2	18
25	Formation and amplification of subfemtosecond x-ray pulses in a plasma medium of hydrogenlike ions with a modulated resonant transition. Physical Review A, 2017, 96, .	2.5	15
26	Simultaneous Excitation of Two Noninteracting Atoms with Time-Frequency Correlated Photon Pairs in a Superconducting Circuit. Physical Review Letters, 2020, 125, 133601.	7.8	15
27	Resolving the Sequence of RNA Strands by Tip-Enhanced Raman Spectroscopy. ACS Photonics, 2021, 8, 424-430.	6.6	15
28	Observation of Acoustically Induced Transparency for <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î³</mml:mi></mml:mrow></mml:math> -Ray Photons. Physical Review Letters, 2020, 124, 163602.	7.8	12
29	Quantum Advantage with Seeded Squeezed Light for Absorption Measurement. Physical Review Applied, 2021, 15, .	3.8	12
30	Raman Characterization of Fungal DHN and DOPA Melanin Biosynthesis Pathways. Journal of Fungi (Basel, Switzerland), 2021, 7, 841.	3.5	12
31	Fluorescent nanodiamondâ€bacteriophage conjugates maintain host specificity. Biotechnology and Bioengineering, 2018, 115, 1427-1436.	3.3	11
32	Probing the Effect of Chemical Dopant Phase on Photoluminescence of Monolayer MoS₂ Using in Situ Raman Microspectroscopy. Journal of Physical Chemistry C, 2019, 123, 15738-15743.	3.1	11
33	Observation of Intensity Squeezing in Resonance Fluorescence from a Solid-State Device. Physical Review Letters, 2020, 125, 153601.	7.8	11
34	Sub-Rayleigh second-order correlation imaging using spatially distributive colored noise speckle patterns. Optics Express, 2021, 29, 19621.	3.4	11
35	Sub-Nyquist computational ghost imaging with orthonormal spectrum-encoded speckle patterns. Physical Review A, 2022, 105, .	2.5	11
36	0.8% Nyquist computational ghost imaging via non-experimental deep learning. Optics Communications, 2022, 520, 128450.	2.1	11

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37	Fermi's golden rule does not adequately describe Dicke's superradiance. Journal of Modern Optics, 2008, 55, 3369-3378.	1.3	10
38	Identification of toxic mold species through Raman spectroscopy of fungal conidia. PLoS ONE, 2020, 15, e0242361.	2.5	10
39	Enhanced coupling of light into a turbid medium through microscopic interface engineering. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7941-7946.	7.1	8
40	Controlled supercontinua via spatial beam shaping. Journal of Modern Optics, 2018, 65, 1332-1335.	1.3	8
41	Molecular origin of the Raman signal from Aspergillus nidulans conidia and observation of fluorescence vibrational structure at room temperature. Scientific Reports, 2020, 10, 5428.	3.3	8
42	Quantum optical immunoassay: upconversion nanoparticle-based neutralizing assay for COVID-19. Scientific Reports, 2022, 12, 1263.	3.3	8
43	Application of the low-finesse <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î³</mml:mi></mml:math> -ray frequency comb for high-resolution spectroscopy. Physical Review A, 2016, 94, .	2.5	7
44	CARS spectroscopy of Aspergillus nidulans spores. Scientific Reports, 2019, 9, 1789.	3.3	7
45	Light, the universe and everything â€“ 12 Herculean tasks for quantum cowboys and black diamond skiers. Journal of Modern Optics, 2018, 65, 1261-1308.	1.3	6
46	Sideband generation of transient lasing without population inversion. Physical Review A, 2014, 90, .	2.5	5
47	Analytical treatment of the continuous wave driving of a two-level atom without making the rotating wave approximation. Journal of Modern Optics, 2016, 63, 27-32.	1.3	4
48	Interaction of femtosecond laser pulses with plants: towards distinguishing weeds and crops using plasma temperature. Journal of Modern Optics, 2017, 64, 942-947.	1.3	4
49	Reply to Dong and Zhao: Plant stress via Raman spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5488-E5490.	7.1	4
50	Raman Spectroscopy as a Robust New Tool for Rapid and Accurate Evaluation of Drought Tolerance Levels in Both Genetically Diverse and Near-Isogenic Maize Lines. Frontiers in Plant Science, 2021, 12, 621711.	3.6	3
51	Fluorescence imaging of stained red blood cells with simultaneous resonance Raman photostability analysis. Analyst, The, 2019, 144, 4362-4370.	3.5	2
52	Compact X-ray laser amplifier in the â€œWater Windowâ€• Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 255, 119675.	3.9	2
53	Natural and magnetically induced entanglement of hyperfine-structure states in atomic hydrogen. Physical Review A, 2021, 103, .	2.5	1
54	Free-electron laser without inversion in the high gain regime. Journal of Modern Optics, 2003, 50, 2507-2514.	1.3	0

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55	Tip-assisted directional growth of atomically thin Ag islands. Journal of Modern Optics, 2017, 64, 936-941.	1.3	0
56	Characterization and Identification of Fungal Conidia via Shifted Excitation Raman Difference Spectroscopy. Reports in Advances of Physical Sciences, 2022, 06, .	0.2	0