

T W Mossberg

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101
papers

3,908
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h-index

59
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107
ext. papers

4,243
ext. citations

3.7
avg, IF

4.73
L-index

#	Paper	IF	Citations
101	Vacuum Rabi splitting as a feature of linear-dispersion theory: Analysis and experimental observations. <i>Physical Review Letters</i> , 1990 , 64, 2499-2502	7.4	449
100	Time-domain frequency-selective optical data storage. <i>Optics Letters</i> , 1982 , 7, 77-9	3	300
99	Echoes in gaseous media: A generalized theory of rephasing phenomena. <i>Physical Review A</i> , 1979 , 20, 1976-1996	2.6	140
98	Realization of a continuous-wave, two-photon optical laser. <i>Physical Review Letters</i> , 1992 , 68, 464-467	7.4	131
97	Dynamical suppression of spontaneous emission. <i>Physical Review Letters</i> , 1987 , 59, 775-778	7.4	120
96	Resonance fluorescence of two-level atoms under strong bichromatic excitation. <i>Physical Review A</i> , 1990 , 41, 6574-6576	2.6	93
95	Spectrum of radiation from two-level atoms under intense bichromatic excitation. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1991 , 8, 1163	1.7	92
94	Observation of linewidth narrowing due to coherent stabilization of quantum fluctuations. <i>Physical Review Letters</i> , 1991 , 66, 2460-2463	7.4	89
93	Radiative emission of driven two-level atoms into the modes of an enclosing optical cavity: The transition from fluorescence to lasing. <i>Physical Review A</i> , 1990 , 41, 1576-1581	2.6	88
92	Spectral and statistical properties of strongly driven atoms coupled to frequency-dependent photon reservoirs. <i>Physical Review A</i> , 1988 , 37, 2048-2062	2.6	88
91	Demonstration of 8-Gbit/in.(2) areal storage density based on swept-carrier frequency-selective optical memory. <i>Optics Letters</i> , 1995 , 20, 1658-60	3	84
90	Collision kernels and laser spectroscopy. <i>Physical Review A</i> , 1982 , 25, 2550-2571	2.6	82
89	Excess dephasing in photon-echo experiments arising from excitation-induced electronic level shifts. <i>Physical Review Letters</i> , 1989 , 63, 78-81	7.4	81
88	Selective excitation of dressed atomic states by use of phase-controlled optical fields. <i>Physical Review Letters</i> , 1985 , 55, 1277-1280	7.4	80
87	Storage and time reversal of light pulses using photon echoes. <i>Optics Letters</i> , 1983 , 8, 483-5	3	79
86	Vacuum-field dressed-state pumping. <i>Physical Review Letters</i> , 1988 , 61, 1946-1949	7.4	77
85	Real-time optical waveform convolver/cross correlator. <i>Applied Physics Letters</i> , 1984 , 45, 714-716	3.4	76

84	Two-photon gain and lasing in strongly driven two-level atoms. <i>Physical Review Letters</i> , 1990 , 64, 3131-3134	3.4	66
83	Optical dephasing, hyperfine structure, and hyperfine relaxation associated with the 580.8-nm 7F0-5D0 transition of europium in Eu ³⁺ :Y ₂ O ₃ . <i>Physical Review B</i> , 1989 , 39, 1987-1992	3.3	59
82	Studies of picosecond collisional dephasing in atomic sodium vapor using broad-bandwidth transient four-wave mixing. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1986 , 3, 554	1.7	51
81	Laser frequency stabilization by means of optical self-heterodyne beat-frequency control. <i>Optics Letters</i> , 1998 , 23, 1280-2	3	45
80	Observation of a two-photon gain feature in the strong-probe absorption spectrum of driven two-level atoms. <i>Physical Review Letters</i> , 1990 , 65, 1200-1203	7.4	45
79	Noble-gas-induced broadening of transitions to Rydberg S and D states in atomic sodium. <i>Physical Review A</i> , 1980 , 21, 1124-1133	2.6	44
78	Driving the driven atom: Spectral signatures. <i>Physical Review A</i> , 1997 , 56, R4381-R4384	2.6	43
77	Non-exponential spontaneous decay in cavities and waveguides. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1988 , 21, L9-L14	1.3	42
76	Trapping and cooling of atoms in a vacuum perturbed in a frequency-dependent manner. <i>Physical Review Letters</i> , 1991 , 67, 1723-1726	7.4	41
75	Coherent transient optical pulse-shape storage/recall using frequency-swept excitation pulses. <i>Optics Letters</i> , 1986 , 11, 724-6	3	40
74	Phase-sensitive dynamics of bichromatically driven two-level atoms. <i>Physical Review A</i> , 1994 , 49, R1519-R1522	3.15	39
73	Spatial routing of optical beams through time-domain spatial-spectral filtering. <i>Optics Letters</i> , 1995 , 20, 910-2	3	38
72	Diagrammatic representation of photon echoes and other laser-induced ordering processes in gases. <i>Physical Review A</i> , 1981 , 23, 1271-1280	2.6	38
71	Swept-carrier time-domain optical memory. <i>Optics Letters</i> , 1992 , 17, 535-7	3	37
70	Transient suppression of the Autler-Townes doublet. <i>Physical Review Letters</i> , 1986 , 57, 1692-1695	7.4	37
69	Planar holographic optical processing devices. <i>Optics Letters</i> , 2001 , 26, 414-6	3	36
68	Observation of inversionless gain and field-assisted lasing in a nearly ideal three-level cascade-type atomic system. <i>Physical Review A</i> , 1996 , 54, 2402-2407	2.6	35
67	Superradiant emission dynamics of an optically thin material sample in a short-decay-time optical cavity. <i>Physical Review Letters</i> , 2000 , 85, 3793-6	7.4	34

66	Dynamically induced irreversibility in coherently driven systems. <i>Physical Review Letters</i> , 1993 , 71, 4311-4314	7.4	34
65	Simple high-coherence rapidly tunable external-cavity diode laser. <i>Optics Letters</i> , 1998 , 23, 1906-8	3	32
64	Transient probe spectra in strongly driven atoms and their dependence on initial atomic conditions. <i>Physical Review A</i> , 1986 , 33, 3956-3969	2.6	32
63	Optically Inhibited Collisional Dephasing. <i>Physical Review Letters</i> , 1984 , 53, 659-662	7.4	32
62	Temporally Recurrent Spatial Ordering of Atomic Population in Gases: Grating Echoes. <i>Physical Review Letters</i> , 1979 , 43, 851-855	7.4	32
61	Strong atom-cavity coupling over large volumes and the observation of subnatural intracavity atomic linewidths. <i>Physical Review Letters</i> , 1994 , 73, 1489-1492	7.4	31
60	Radiative and dynamical properties of homogeneously prepared atomic samples. <i>Physical Review A</i> , 1988 , 37, 119-124	2.6	31
59	Observation of Collisional Velocity Changes Associated with Atoms in a Superposition of Dissimilar Electronic States. <i>Physical Review Letters</i> , 1980 , 44, 73-77	7.4	31
58	Inversionless gain in driven three-level Λ -type atoms: A comparison of broadband and monochromatic excitation. <i>Physical Review A</i> , 1994 , 50, 3394-3400	2.6	30
57	Experimental demonstration of swept-carrier time-domain optical memory. <i>Optics Letters</i> , 1995 , 20, 91-3	3	28
56	Storage and phase conjugation of light pulses using stimulated photon echoes. <i>Optics Letters</i> , 1983 , 8, 623-5	3	28
55	Radiative properties of strongly driven atoms in the presence of photonic bands and gaps. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1993 , 10, 340	1.7	27
54	Transient spectra of strong-field resonance fluorescence. <i>Physical Review Letters</i> , 1987 , 59, 2149-2152	7.4	26
53	Noble-gas broadening of the sodium D lines measured by photon echoes. <i>Journal of Physics B: Atomic and Molecular Physics</i> , 1980 , 13, L363-L368		26
52	Measurement of a Total Atomic-Radiator-Perturber Scattering Cross Section. <i>Physical Review Letters</i> , 1981 , 47, 902-905	7.4	26
51	Noble-gas-induced collisional broadening of the $3P_{1/2} \rightarrow 3P_{3/2}$ transition of sodium measured by the trilevel-echo technique. <i>Physical Review A</i> , 1980 , 22, 1962-1969	2.6	25
50	Lasing without inversion: Gain enhancement through spectrally colored population pumping. <i>Physical Review A</i> , 1993 , 48, 4055-4058	2.6	24
49	Cavity-perturbed strong-field resonance fluorescence. <i>Physical Review A</i> , 1989 , 39, 2754-2757	2.6	24

48	Ultrahigh-frequency interference beats in transient, incoherent-light four-wave mixing. <i>Optics Letters</i> , 1986 , 11, 431-3	3	24
47	Temporally programmed free-induction decay. <i>Physical Review A</i> , 1984 , 30, 1572-1574	2.6	23
46	Magnetic trapping of ytterbium and the alkaline-earth metals. <i>Physical Review A</i> , 2002 , 66,	2.6	22
45	Optical resonance and coherent transients in dressed atomic systems. <i>Physical Review A</i> , 1994 , 50, 1474-1478	2.6	22
44	Time-dependent spectrum of resonance fluorescence for atoms prepared in pure dressed states. <i>Physical Review A</i> , 1986 , 34, 319-325	2.6	22
43	Effect of optical gain on the fluorescence of two-level atoms into the modes of an optical cavity. <i>Physical Review A</i> , 1989 , 39, 2268-2271	2.6	20
42	Intrinsically Irreversible Multiphoton Laser Gain Mechanisms. <i>Physical Review Letters</i> , 1997 , 78, 1432-1435	2.4	20
41	Experimental study of photon-echo size in optically thick media. <i>Physical Review A</i> , 1999 , 60, R757-R760	2.6	18
40	Experimental studies of photo-echo pulse compression. <i>Optics Letters</i> , 1986 , 11, 30	3	18
39	Polarization-dependent Rabi frequency beats in the coherent response of Tm ³⁺ in YAG. <i>Physical Review A</i> , 1999 , 60, R2657-R2660	2.6	17
38	Experimental demonstration of temporal-waveform-controlled spatial routing of optical beams by spatial-spectral filtering. <i>Optics Letters</i> , 1995 , 20, 2541	3	17
37	Field-inhibited optical dephasing and shape locking of photon echoes. <i>Optics Letters</i> , 1984 , 9, 232-4	3	17
36	Mixed binary multiplication of optical signals by convolution in an inhomogeneously broadened absorber. <i>Applied Optics</i> , 1986 , 25, 962	1.7	16
35	Quasi-two-dimensional time-domain color memories: process limitations and potentials. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1994 , 11, 1948	1.7	15
34	Collisional relaxation of excited-state Zeeman coherences in atomic ytterbium vapor. <i>Physical Review A</i> , 1985 , 32, 844-853	2.6	15
33	Use of phase-noisy laser fields in the storage of optical pulse shapes in inhomogeneously broadened absorbers. <i>Optics Letters</i> , 1991 , 16, 103-5	3	14
32	Spectrally ordered Zeeman coherences and optical pulse-shape storage. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1985 , 2, 908	1.7	14
31	Photon echo optical pulse compression. <i>Applied Physics Letters</i> , 1984 , 45, 1269-1271	3.4	13

30	Noble-gas-induced collisional broadening of the $6P_{1/2} \rightarrow 3P_{3/2}$ transition of Tl measured by Raman echoes. <i>Physical Review A</i> , 1982 , 25, 3097-3101	2.6	13
29	Vacuum-mediated multiphoton transitions. <i>Physical Review A</i> , 2001 , 63,	2.6	11
28	Time reversal of optical nutation signals. <i>Physical Review A</i> , 1986 , 34, 1222-1227	2.6	11
27	Optical bit-rate conversion and bit-stream time reversal by the use of swept-carrier frequency-selective optical data storage techniques. <i>Optics Letters</i> , 1995 , 20, 2033-5	3	10
26	Interferometric amplitude apodization of integrated gratings. <i>Optics Express</i> , 2005 , 13, 2419-26	3.3	8
25	Integrated holographic filters for flat passband optical multiplexers. <i>Optics Express</i> , 2006 , 14, 3497-502	3.3	8
24	Multipole-specific, model-independent, velocity-change spectra of collisionally perturbed $3P_{1/2}$ -state ^{174}Yb atoms. <i>Physical Review A</i> , 1986 , 34, 5150-5153	2.6	8
23	Experimental observation of photon echoes and power-efficiency analysis in a cavity environment. <i>Optics Letters</i> , 1998 , 23, 1736-8	3	7
22	Heterodyne detection of swept-carrier frequency-selective optical memory signals. <i>Optics Letters</i> , 1995 , 20, 928-30	3	7
21	N_2 - and CO -induced collisional broadening of forbidden ground-to-Rydberg-state transitions in sodium as measured by trilevel echoes. <i>Physical Review A</i> , 1980 , 22, 1953-1957	2.6	7
20	Optically induced shifts in the frequency of the $3H_{4/2} \rightarrow 1D_{2/2}$ transition of Pr^{3+} in LaF_3 . <i>Physical Review B</i> , 1993 , 48, 7668-7671	3.3	6
19	Coherently driven three-level atoms: unexpected inversions, pump bandwidth effects and observation of continuous lasing. <i>Journal of the European Optical Society Part B: Quantum Optics</i> , 1994 , 6, 287-303		6
18	Relative noble-gas-induced broadening of the D lines of atomic lithium. <i>Physical Review A</i> , 1982 , 25, 1546-1549	2.6	6
17	Instability and pulse area quantization in accelerated superradiant atom-cavity systems. <i>Physical Review Letters</i> , 2001 , 87, 253602	7.4	5
16	Laser-induced photonic-continuum structure. <i>Physical Review A</i> , 1993 , 48, 764-769	2.6	5
15	Coherent transients theorem: A comment. <i>Physical Review A</i> , 1981 , 24, 2247-2249	2.6	5
14	Photonic Structures: Planar Holographic Bragg Reflectors: Building Blocks for Tomorrow's Integrated. <i>Optics and Photonics News</i> , 2003 , 14, 32	1.9	4
13	Frustrated pulse-area quantization in accelerated superradiant atom-cavity systems. <i>Physical Review A</i> , 2003 , 67,	2.6	4

12	Planar-waveguide integrated spectral comparator. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2004 , 21, 1088-92	1.8	3
11	Standing-Wave Induced Backward Photon Echoes in Gases. <i>Physical Review Letters</i> , 1983 , 51, 35-38	7.4	3
10	Laser modulation technique for single isotope spectroscopic studies. <i>Physical Review A</i> , 2000 , 61,	2.6	2
9	Spatially distributed spectral storage. <i>Optics Letters</i> , 1999 , 24, 1526-8	3	2
8	Switching of photon-echo polarization and direction by coherent optical fields. <i>Physical Review A</i> , 1984 , 29, 225-229	2.6	2
7	Single-sideband spectral holographic optical memory. <i>Optics Letters</i> , 1996 , 21, 1866-8	3	0
6	Standing-Wave Induced Backward Photon Echoes in Gases 1984 , 309-315		0
5	Colliding Without Relaxing: The Suppression of Collisional Dephasing with Strong Optical Fields. <i>Springer Series in Optical Sciences</i> , 1985 , 296-297	0.5	0
4	Instability, area quantization and area gaps in cavity-accelerated superradiant atom-cavity systems 2003 , 213-221		
3	Polarization of Dressed Atom-Field States in the Transient and Steady-State Regimes 1989 , 1291-1295		
2	Cryogenically Cooled Optical Dynamic RAM 1998 , 857-864		
1	Noble Gas Induced Relaxation of the Li 3S-3P Transition Spanning the Short Term Impact Regime to the Long Term Asymptotic Regime. <i>Springer Series in Optical Sciences</i> , 1981 , 208-211	0.5	