

# Manfred Lein

## List of Publications by Year in descending order

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136  
papers

21,877  
citations

100601

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18400

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137  
docs citations

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times ranked

45611  
citing authors

#	ARTICLE	IF	CITATIONS
1	Control of the Geometric Phase and Nonequivalence between Geometric-Phase Definitions in the Adiabatic Limit. <i>Physical Review Letters</i> , 2022, 128, 030401.	2.9	7
2	Magnetic-Field Effect in High-Order Above-Threshold Ionization. <i>Physical Review Letters</i> , 2022, 128, 023201.	2.9	15
3	Deep learning for retrieval of the internuclear distance in a molecule from interference patterns in photoelectron momentum distributions. <i>Physical Review A</i> , 2022, 105, .	1.0	10
4	Revealing Coulomb time shifts in high-order harmonic generation by frequency-dependent streaking. <i>Physical Review A</i> , 2022, 105, .	1.0	4
5	Electric Nondipole Effect in Strong-Field Ionization. <i>Physical Review Letters</i> , 2021, 126, 053202.	2.9	29
6	Laser-Driven Anharmonic Oscillator: Ground-State Dissociation of the Helium Hydride Molecular Ion by Midinfrared Pulses. <i>Physical Review Letters</i> , 2021, 127, 043202.	2.9	5
7	Attoclock with bicircular laser fields as a probe of velocity-dependent tunnel-exit positions. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2021, 54, 164001.	0.6	7
8	Nondipole modification of the ac Stark effect in above-threshold ionization. <i>Physical Review A</i> , 2021, 104, .	1.0	14
9	Nonadiabatic Strong Field Ionization of Atomic Hydrogen. <i>Physical Review Letters</i> , 2021, 127, 273201.	2.9	17
10	Theory of Subcycle Linear Momentum Transfer in Strong-Field Tunneling Ionization. <i>Physical Review Letters</i> , 2020, 125, 073202.	2.9	42
11	Probing dynamical symmetries by bicircular high-order harmonic spectroscopy beyond the Born-Oppenheimer approximation. <i>Physical Review A</i> , 2020, 101, .	1.0	8
12	Dissociation and ionization of HeH <sup>+</sup> in sub-cycle-controlled intense two-color fields. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2020, 53, 174001.	0.6	7
13	Attosecond-Scale Streaking Methods for Strong-Field Ionization by Tailored Fields. <i>Physical Review Letters</i> , 2020, 124, 043202.	2.9	25
14	Kinematically complete experimental study of Compton scattering at helium atoms near the threshold. <i>Nature Physics</i> , 2020, 16, 756-760.	6.5	25
15	Gouy's Phase Anomaly in Electron Waves Produced by Strong-Field Ionization. <i>Physical Review Letters</i> , 2020, 124, 153202.	2.9	23
16	Theory of Subcycle Linear Momentum Transfer in Strong-Field Tunneling Ionization. , 2020, , .		0
17	Minimizing attosecond CEP jitter by carrier envelope phase tuning. <i>EPJ Web of Conferences</i> , 2019, 205, 02011.	0.1	0
18	Strong-field photoelectron holography beyond the electric dipole approximation: A semiclassical analysis. <i>Physical Review A</i> , 2019, 100, .	1.0	21

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19	High-order harmonic generation from diatomic molecules in an orthogonally polarized two-color laser field. <i>Physical Review A</i> , 2019, 100, .	1.0	25
20	Heteronuclear Limit of Strong-Field Ionization: Laser-Induced Fragmentation of HeH <sup>+</sup> . , 2019, , .		0
21	Magnetic fields alter strong-field ionization. <i>Nature Physics</i> , 2019, 15, 1222-1226.	6.5	69
22	Reciprocal-Space-Trajectory Perspective on High-Harmonic Generation in Solids. <i>Physical Review Letters</i> , 2019, 122, 193901.	2.9	96
23	Attoclock with counter-rotating bicircular laser fields. <i>Physical Review A</i> , 2019, 99, .	1.0	27
24	Semiclassical two-step model for ionization of the hydrogen molecule by a strong laser field. <i>European Physical Journal D</i> , 2019, 73, 1.	0.6	5
25	Semiclassical two-step model with quantum input: Quantum-classical approach to strong-field ionization. <i>Physical Review A</i> , 2019, 100, .	1.0	12
26	Double-slit photoelectron interference in strong-field ionization of the neon dimer. <i>Nature Communications</i> , 2019, 10, 1.	5.8	15,301
27	Trajectory-free ionization times in strong-field ionization. <i>Physical Review A</i> , 2018, 97, .	1.0	29
28	Effects of the Coulomb potential in interference patterns of strong-field holography with photoelectrons. <i>Physical Review A</i> , 2018, 97, .	1.0	27
29	Velocity map imaging of scattering dynamics in orthogonal two-color fields. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 015001.	0.6	11
30	High-order above-threshold ionization beyond the electric dipole approximation. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 094005.	0.6	39
31	High-order above-threshold ionization beyond the electric dipole approximation: Dependence on the atomic and molecular structure. <i>Physical Review A</i> , 2018, 98, .	1.0	33
32	Strong-field polarizability-enhanced dissociative ionization. <i>Physical Review A</i> , 2018, 98, .	1.0	16
33	Direct Experimental Access to the Nonadiabatic Initial Momentum Offset upon Tunnel Ionization. <i>Physical Review Letters</i> , 2018, 121, 163202.	2.9	52
34	Heteronuclear Limit of Strong-Field Ionization: Fragmentation of $\text{HeH}^+$ by Intense Ultrashort Laser Pulses. <i>Physical Review Letters</i> , 2018, 121, 073203.	2.9	28
35	Multielectron polarization effects in strong-field ionization: Narrowing of momentum distributions and imprints in interference structures. <i>Physical Review A</i> , 2018, 98, .	1.0	15
36	Stabilizing isolated attosecond pulse formation by dispersion tuning. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2018, 35, A22.	0.9	2

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37	Time-dependent density functional theory for strong-field ionization by circularly polarized pulses. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2017, 50, 055601.	0.6	2
38	Extreme-ultraviolet frequency combs from high-order harmonic generation with few-cycle pulse trains. <i>Physical Review A</i> , 2017, 95, .	1.0	2
39	Journeys from quantum optics to quantum technology. <i>Progress in Quantum Electronics</i> , 2017, 54, 19-45.	3.5	41
40	Attosecond Probing of Nuclear Dynamics with Trajectory-Resolved High-Harmonic Spectroscopy. <i>Physical Review Letters</i> , 2017, 119, 033201.	2.9	111
41	Dynamics of valence-shell electrons and nuclei probed by strong-field holography and rescattering. <i>Nature Communications</i> , 2017, 8, 15651.	5.8	91
42	Signatures of Electronic Structure in Bicircular High-Harmonic Spectroscopy. <i>Physical Review Letters</i> , 2017, 119, 203201.	2.9	31
43	Non-perturbative semiclassical model for strong-field ionization. <i>Journal of Physics: Conference Series</i> , 2017, 875, 022019.	0.3	0
44	Extracting trajectory information from two-color strong-field ionization. <i>Journal of Modern Optics</i> , 2017, 64, 981-986.	0.6	16
45	Semiclassical two-step model for strong-field ionization. <i>Physical Review A</i> , 2016, 94, .	1.0	114
46	Revealing the Microscopic Real-Space Excursion of a Laser-Driven Electron. <i>Physical Review X</i> , 2016, 6, .	2.8	7
47	Preparing attosecond coherences by strong-field ionization. <i>Physical Review A</i> , 2016, 93, .	1.0	33
48	Analysis of electron trajectories with two-color strong-field ionization. <i>Physical Review A</i> , 2015, 92, .	1.0	24
49	Synchronized pulses generated at 20â€¦eV and 90â€¦eV for attosecond pumpâ€¦probe experiments. <i>Nature Photonics</i> , 2015, 9, 383-387.	15.6	48
50	Signatures of Molecular Orbital Structure in Lateral Electron Momentum Distributions from Strong-Field Ionization. <i>Physical Review Letters</i> , 2015, 114, 103004.	2.9	37
51	The time-scale of nonlinear events driven by strong fields: can one control the spin coupling before ionization runs over?. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2014, 47, 124027.	0.6	5
52	Numerical verification of the theory of nonadiabatic tunnel ionization in strong circularly polarized laser fields. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2014, 47, 204016.	0.6	55
53	High-harmonic generation with combined infrared and extreme ultraviolet fields. <i>Journal of Modern Optics</i> , 2014, 61, 845-850.	0.6	11
54	Photoelectron circular dichroism of chiral molecules studied with a continuum-state-corrected strong-field approximation. <i>Physical Review A</i> , 2014, 89, .	1.0	47

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55	Asymmetry of Wigner's time delay in a small molecule. <i>Physical Review A</i> , 2014, 89, .	1.0	32
56	Determination of Ionization and Tunneling Times in High-Order Harmonic Generation. <i>Physical Review Letters</i> , 2013, 111, 043901.	2.9	68
57	Quantitative theory for the lateral momentum distribution after strong-field ionization. <i>Chemical Physics</i> , 2013, 414, 69-72.	0.9	33
58	High-order-harmonic generation from dense water microdroplets. <i>Physical Review A</i> , 2013, 87, .	1.0	20
59	Retrieval of the amplitude and phase of the dipole matrix element by attosecond electron-wave-packet interferometry. <i>Physical Review A</i> , 2013, 87, .	1.0	4
60	Sub-fs pulse generation and characterisation in the VUV. , 2013, , .		0
61	Prediction of attosecond light pulses in the VUV range in a high-order-harmonic-generation regime. <i>Physical Review A</i> , 2013, 87, .	1.0	37
62	Isolated attosecond pulse generation in transition metal ablation plumes. , 2013, , .		0
63	Probing Fano resonances with ultrashort pulses. <i>New Journal of Physics</i> , 2012, 14, 065003.	1.2	24
64	Isolated sub-fs XUV pulse generation in Mn plasma ablation. <i>Optics Express</i> , 2012, 20, 25239.	1.7	54
65	Adiabaticity in the lateral electron-momentum distribution after strong-field ionization. <i>Physical Review A</i> , 2012, 85, .	1.0	18
66	Quantum Wave-Packet Dynamics in Spin-Coupled Vibronic States. <i>Journal of Physical Chemistry A</i> , 2012, 116, 11427-11433.	1.1	14
67	Positioning of Bound Electron Wave Packets in Molecules Revealed by High-Harmonic Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2012, 116, 2723-2727.	1.1	7
68	Molecular Imaging Using High-Order Harmonic Generation and Above-Threshold Ionization. <i>Physical Review Letters</i> , 2012, 108, 043004.	2.9	44
69	Electrons get real. <i>Nature</i> , 2012, 485, 313-314.	13.7	13
70	Adiabatic approximation within time-dependent density functional theory using inversion of the ground-state spin-density Kohn-Sham formalism. <i>Chemical Physics</i> , 2011, 391, 143-146.	0.9	7
71	High-order harmonic generation in the presence of a resonance. <i>Physical Review A</i> , 2011, 84, .	1.0	82
72	Interference in above-threshold-ionization electron distributions from molecules. <i>Physical Review A</i> , 2011, 83, .	1.0	40



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91	Tomographic Imaging of Molecular Orbitals in Length and Velocity Form. AIP Conference Proceedings, 2007, , .	0.3	3
92	Molecular imaging using recolliding electrons. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, R135-R173.	0.6	369
93	Assessing different forms of the strong-field approximation for harmonic generation in molecules. Journal of Modern Optics, 2007, 54, 1039-1045.	0.6	30
94	Enhanced recollision dynamics via the combination of antisymmetric wave functions and beyond-dipole effects. Journal of Modern Optics, 2007, 54, 1911-1926.	0.6	2
95	Strongly enhanced high-harmonic generation via antisymmetric ionic states. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, F113-F119.	0.6	8
96	Probing proton dynamics in molecules on an attosecond timescale. , 2007, , .		0
97	Influence of Coulomb continuum wave functions in the description of high-order harmonic generation with H <sub>2</sub> <sup>+</sup> . Physical Review A, 2007, 75, .	1.0	59
98	Probing fast nuclear wavepackets in light molecules: monitoring structural rearrangement on an attosecond timescale. Journal of Modern Optics, 2007, 54, 1011-1017.	0.6	7
99	Numerical aspects of real-space approaches to strong-field electron dynamics. Journal of Computational Physics, 2007, 226, 89-103.	1.9	16
100	High-order harmonic generation in vibrating molecules. Journal of Modern Optics, 2006, 53, 113-124.	0.6	15
101	Influence of nuclear vibration on harmonic generation in molecules. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, S437-S444.	0.6	32
102	Probing Attosecond Dynamics by Laser Driven Electron Recollisions. AIP Conference Proceedings, 2006, , .	0.3	0
103	Probing Proton Dynamics in Molecules on an Attosecond Time Scale. Science, 2006, 312, 424-427.	6.0	797
104	Enhanced Recollisions for Antisymmetric Molecular Orbitals in Intense Laser Fields. Physical Review Letters, 2006, 97, 143901.	2.9	28
105	High-order above-threshold ionization in stretched molecules. Physical Review A, 2006, 74, .	1.0	20
106	Strong-field approximation for harmonic generation in diatomic molecules. Physical Review A, 2006, 73, .	1.0	101
107	Analysis of recombination in high-order harmonic generation in molecules. Physical Review A, 2005, 71, .	1.0	43
108	Mechanisms of ultrahigh-order harmonic generation. Physical Review A, 2005, 72, .	1.0	26

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109	Hole-assisted energy deposition in dielectrics and clusters in the multiphoton regime. Journal of Modern Optics, 2005, 52, 1019-1030.	0.6	10
110	Signatures of molecular structure in the strong-field response of aligned molecules. Journal of Modern Optics, 2005, 52, 465-478.	0.6	34
111	Exact Time-Dependent Exchange-Correlation Potentials for Strong-Field Electron Dynamics. Physical Review Letters, 2005, 94, 143003.	2.9	138
112	Attosecond Probing of Vibrational Dynamics with High-Harmonic Generation. Physical Review Letters, 2005, 94, 053004.	2.9	285
113	Ultrafast multiphoton forest fires and fractals in clusters and dielectrics. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, L57-L67.	0.6	25
114	Role of orbital symmetry in high-order harmonic generation from aligned molecules. Physical Review A, 2004, 69, .	1.0	97
115	Ultrahigh Harmonics from Laser-Assisted Ion-Atom Collisions. Physical Review Letters, 2003, 91, 243901.	2.9	37
116	Non-Hermitian Quantum Mechanics for High-Order Harmonic Generation Spectra. Journal of Physical Chemistry A, 2003, 107, 7181-7188.	1.1	37
117	Investigations of electron wave-packet dynamics and high-order harmonic generation in laser-aligned molecules. Journal of Modern Optics, 2003, 50, 561-577.	0.6	11
118	Orientation dependence of high-order harmonic generation in molecules. Physical Review A, 2003, 67, .	1.0	118
119	Antibonding molecular orbitals under the influence of elliptically polarized intense light. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, L155-L161.	0.6	29
120	Electron diffraction in above-threshold ionization of molecules. Physical Review A, 2002, 66, .	1.0	134
121	Strong-field ionization dynamics of a model H <sub>2</sub> molecule. Physical Review A, 2002, 65, .	1.0	97
122	High-order harmonic generation in laser-aligned molecules. Physical Review A, 2002, 65, .	1.0	78
123	Interference effects in high-order harmonic generation with molecules. Physical Review A, 2002, 66, .	1.0	328
124	Role of the Intramolecular Phase in High-Harmonic Generation. Physical Review Letters, 2002, 88, 183903.	2.9	465
125	Phase-space analysis of double ionization. Optics Express, 2001, 8, 411.	1.7	16
126	Discrete peaks in above-threshold double-ionization spectra. Physical Review A, 2001, 64, .	1.0	27



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127	Even-Harmonic Generation due to Beyond-Born-Oppenheimer Dynamics. Physical Review Letters, 2001, 87, 103901.	2.9	105
128	On the mechanism of strong-field double photoionization in the helium atom. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 433-442.	0.6	32
129	Pulse-width and isotope effects in femtosecond-pulse strong-field dissociation of H <sub>2</sub> <sup>+</sup> and D <sub>2</sub> <sup>+</sup> . Physical Review A, 2000, 62, .	1.0	27
130	Electron correlation energies from scaled exchange-correlation kernels: Importance of spatial versus temporal nonlocality. Physical Review B, 2000, 61, 13431-13437.	1.1	113
131	Intense-Field Double Ionization of Helium: Identifying the Mechanism. Physical Review Letters, 2000, 85, 4707-4710.	2.9	278
132	Characterization of nuclear wave packets describing molecular photodissociation. Journal of Chemical Physics, 2000, 113, 3609-3614.	1.2	18
133	Toward the description of van der Waals interactions within density functional theory. Journal of Computational Chemistry, 1999, 20, 12-22.	1.5	106
134	Orbital Functionals in Static and Time-Dependent Density Functional Theory. , 1999, , 393-427.		1
135	High-order harmonic generation in laser aligned molecules. , 0, , .		2
136	Investigations of electron wave-packet dynamics and high-order harmonic generation in laser-aligned molecules. , 0, .		1