# Edward Ott

List of Publications by Year
in descending order

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|---|---|---|---|
| 523<br>papers | 43,628<br>citations | 2322<br>98<br>h-index | 3182<br>186<br>g-index |
| 542<br>all docs | 542<br>docs citations | 542<br>times ranked | 13477<br>citing authors |

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|---|---------|-----|-----------|
| 1 | Controlling chaos. Physical Review Letters, 1990, 64, 1196-1199. | 7.8 | 5,062 |
| 2 | Crises, sudden changes in chaotic attractors, and transient chaos. Physica D: Nonlinear Phenomena, 1983, 7, 181-200. | 2.8 | 1,073 |
| 3 | Using small perturbations to control chaos. Nature, 1993, 363, 411-417. | 27.8 | 806 |
| 4 | The dimension of chaotic attractors. Physica D: Nonlinear Phenomena, 1983, 7, 153-180. | 2.8 | 802 |
| 5 | Low dimensional behavior of large systems of globally coupled oscillators. Chaos, 2008, 18, 037113. | 2.5 | 750 |
| 6 | Model-Free Prediction of Large Spatiotemporally Chaotic Systems from Data: A Reservoir Computing Approach. Physical Review Letters, 2018, 120, 024102. | 7.8 | 712 |
| 7 | Chaotic Attractors in Crisis. Physical Review Letters, 1982, 48, 1507-1510. | 7.8 | 708 |
| 8 | Self-focusing of short intense pulses in plasmas. Physics of Fluids, 1987, 30, 526. | 1.4 | 603 |
| 9 | Communicating with chaos. Physical Review Letters, 1993, 70, 3031-3034. | 7.8 | 511 |
| 10 | Critical exponents for crisis-induced intermittency. Physical Review A, 1987, 36, 5365-5380. | 2.5 | 499 |
| 11 | Strange attractors that are not chaotic. Physica D: Nonlinear Phenomena, 1984, 13, 261-268. | 2.8 | 486 |
| 12 | Blowout bifurcations: the occurrence of riddled basins and on-off intermittency. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 188, 39-47. | 2.1 | 478 |
| 13 | Crowd synchrony on the Millennium Bridge. Nature, 2005, 438, 43-44. | 27.8 | 474 |
| 14 | Fractal basin boundaries. Physica D: Nonlinear Phenomena, 1985, 17, 125-153. | 2.8 | 472 |
| 15 | Strange attractors and chaotic motions of dynamical systems. Reviews of Modern Physics, 1981, 53, 655-671. | 45.6 | 445 |
| 16 | Long time evolution of phase oscillator systems. Chaos, 2009, 19, 023117. | 2.5 | 386 |
| 17 | Controlling chaotic dynamical systems. Physica D: Nonlinear Phenomena, 1992, 58, 165-192. | 2.8 | 384 |
| 18 | Dimension of Strange Attractors. Physical Review Letters, 1980, 45, 1175-1178. | 7.8 | 382 |

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|---|---------|-----|-----------|
| 19 | Chaos, Strange Attractors, and Fractal Basin Boundaries in Nonlinear Dynamics. Science, 1987, 238, 632-638. | 12.6 | 381 |
| 20 | Using machine learning to replicate chaotic attractors and calculate Lyapunov exponents from data. Chaos, 2017, 27, 121102. | 2.5 | 376 |
| 21 | A local ensemble Kalman filter for atmospheric data assimilation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2004, 56, 415-428. | 1.7 | 366 |
| 22 | Using chaos to direct trajectories to targets. Physical Review Letters, 1990, 65, 3215-3218. | 7.8 | 353 |
| 23 | Final state sensitivity: An obstruction to predictability. Physics Letters, Section A: General, Atomic and Solid State Physics, 1983, 99, 415-418. | 2.1 | 349 |
| 24 | Theory and Simulation of Turbulent Heating by the Modified Two-Stream Instability. Physics of Fluids, 1972, 15, 2367. | 1.4 | 346 |
| 25 | A local ensemble Kalman filter for atmospheric data assimilation. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 56, 415. | 1.7 | 332 |
| 26 | Unstable periodic orbits and the dimensions of multifractal chaotic attractors. Physical Review A, 1988, 37, 1711-1724. | 2.5 | 298 |
| 27 | Fractal Basin Boundaries, Long-Lived Chaotic Transients, and Unstable-Unstable Pair Bifurcation. Physical Review Letters, 1983, 50, 935-938. | 7.8 | 279 |
| 28 | Grazing bifurcations in impact oscillators. Physical Review E, 1994, 50, 4427-4444. | 2.1 | 264 |
| 29 | Experimental Control of Chaos for Communication. Physical Review Letters, 1994, 73, 1781-1784. | 7.8 | 258 |
| 30 | Critical Exponent of Chaotic Transients in Nonlinear Dynamical Systems. Physical Review Letters, 1986, 57, 1284-1287. | 7.8 | 250 |
| 31 | Onset of synchronization in large networks of coupled oscillators. Physical Review E, 2005, 71, 036151. | 2.1 | 248 |
| 32 | Border-collision bifurcations: An explanation for observed bifurcation phenomena. Physical Review E, 1994, 49, 1073-1076. | 2.1 | 240 |
| 33 | Strange attractors and chaotic motions of dynamical systems. , 1981, , 103-119. | | 238 |
| 34 | Exact results for the Kuramoto model with a bimodal frequency distribution. Physical Review E, 2009, 79, 026204. | 2.1 | 230 |
| 35 | Attractor reconstruction by machine learning. Chaos, 2018, 28, 061104. | 2.5 | 222 |
| 36 | Markov-Tree Model of Intrinsic Transport in Hamiltonian Systems. Physical Review Letters, 1985, 55, 2741-2744. | 7.8 | 217 |

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| 37 | Transition to Phase Synchronization of Chaos. Physical Review Letters, 1998, 80, 1642-1645. | 7.8 | 217 |
| 38 | Hybrid forecasting of chaotic processes: Using machine learning in conjunction with a knowledge-based model. Chaos, 2018, 28, 041101. | 2.5 | 212 |
| 39 | Theory of Rayleigh–Taylor bubbles in the equatorial ionosphere. Journal of Geophysical Research, 1978, 83, 2066-2070. | 3.3 | 208 |
| 40 | Border-collision bifurcations in the buck converter. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 1998, 45, 707-716. | 0.1 | 202 |
| 41 | Markov tree model of transport in area-preserving maps. Physica D: Nonlinear Phenomena, 1986, 20, 387-402. | 2.8 | 200 |
| 42 | Reservoir observers: Model-free inference of unmeasured variables in chaotic systems. Chaos, 2017, 27, 041102. | 2.5 | 200 |
| 43 | Characterizing the Dynamical Importance of Network Nodes and Links. Physical Review Letters, 2006, 97, 094102. | 7.8 | 199 |
| 44 | Transition to chaos for random dynamical systems. Physical Review Letters, 1990, 65, 2935-2938. | 7.8 | 185 |
| 45 | Experimental observation of a strange nonchaotic attractor. Physical Review Letters, 1990, 65, 533-536. | 7.8 | 183 |
| 46 | Toroidal and scattering effects on lower-hybrid wave propagation. Physics of Fluids, 1982, 25, 359. | 1.4 | 175 |
| 47 | Controlling chaos in high dimensional systems. Physical Review Letters, 1992, 69, 3479-3482. | 7.8 | 174 |
| 48 | Differentiable generalized synchronization of chaos. Physical Review E, 1997, 55, 4029-4034. | 2.1 | 172 |
| 49 | Estimating correlation dimension from a chaotic time series: when does plateau onset occur?. Physica D: Nonlinear Phenomena, 1993, 69, 404-424. | 2.8 | 170 |
| 50 | The transition to chaotic attractors with riddled basins. Physica D: Nonlinear Phenomena, 1994, 76, 384-410. | 2.8 | 170 |
| 51 | Effect of Noise on Time-Dependent Quantum Chaos. Physical Review Letters, 1984, 53, 2187-2190. | 7.8 | 168 |
| 52 | Basin boundary metamorphoses: Changes in accessible boundary orbits. Physica D: Nonlinear Phenomena, 1987, 24, 243-262. | 2.8 | 165 |
| 53 | Chaotic scattering: An introduction. Chaos, 1993, 3, 417-426. | 2.5 | 162 |
| 54 | Evolution of attractors in quasiperiodically forced systems: From quasiperiodic to strange nonchaotic to chaotic. Physical Review A, 1989, 39, 2593-2598. | 2.5 | 160 |

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| 55 | Bifurcation to chaotic scattering. Physica D: Nonlinear Phenomena, 1990, 46, 87-121. | 2.8 | 160 |
| 56 | Nonlinear Evolution of the Rayleigh-Taylor Instability of a Thin Layer. Physical Review Letters, 1972, 29, 1429-1432. | 7.8 | 158 |
| 57 | Wave Chaos Experiments with and without Time Reversal Symmetry: GUE and GOE Statistics. Physical Review Letters, 1995, 74, 2662-2665. | 7.8 | 157 |
| 58 | Local Low Dimensionality of Atmospheric Dynamics. Physical Review Letters, 2001, 86, 5878-5881. | 7.8 | 155 |
| 59 | Strange nonchaotic attractors of the damped pendulum with quasiperiodic forcing. Physical Review A, 1987, 35, 4404-4413. | 2.5 | 152 |
| 60 | Theory of magnetic insulation. Physics of Fluids, 1974, 17, 1263. | 1.4 | 151 |
| 61 | Detecting Phase Synchronization in a Chaotic Laser Array. Physical Review Letters, 2001, 87, 044101. | 7.8 | 149 |
| 62 | Bifurcation and ''strange'' behavior in instability saturation by nonlinear three-wave mode coupling. Physics of Fluids, 1980, 23, 1142. | 1.4 | 147 |
| 63 | A physical system with qualitatively uncertain dynamics. Nature, 1993, 365, 138-140. | 27.8 | 147 |
| 64 | A local ensemble transform Kalman filter data assimilation system for the NCEP global model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2008, 60, 113-130. | 1.7 | 146 |
| 65 | Plateau onset for correlation dimension: When does it occur?. Physical Review Letters, 1993, 70, 3872-3875. | 7.8 | 145 |
| 66 | Interaction of electromagnetic waves with a moving ionization front. Physics of Fluids, 1978, 21, 42. | 1.4 | 143 |
| 67 | Scaling behavior of chaotic systems with riddled basins. Physical Review Letters, 1993, 71, 4134-4137. | 7.8 | 143 |
| 68 | Quasiperiodically Forced Damped Pendula and Schrödinger Equations with Quasiperiodic Potentials: Implications of Their Equivalence. Physical Review Letters, 1985, 55, 2103-2106. | 7.8 | 140 |
| 69 | Detecting Unstable Periodic Orbits in Chaotic Experimental Data. Physical Review Letters, 1996, 76, 4705-4708. | 7.8 | 140 |
| 70 | Using the sensitive dependence of chaos (the ''butterfly effect'') to direct trajectories in an experimental chaotic system. Physical Review Letters, 1992, 68, 2863-2866. | 7.8 | 136 |
| 71 | Metamorphoses of Basin Boundaries in Nonlinear Dynamical Systems. Physical Review Letters, 1986, 56, 1011-1014. | 7.8 | 134 |
| 72 | Modeling walker synchronization on the Millennium Bridge. Physical Review E, 2007, 75, 021110. | 2.1 | 134 |

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| 73 | Adaptive Synchronization of Dynamics on Evolving Complex Networks. Physical Review Letters, 2008, 100, 114101. | 7.8 | 134 |
| 74 | Strange saddles and the dimensions of their invariant manifolds. Physics Letters, Section A: General, Atomic and Solid State Physics, 1988, 127, 199-204. | 2.1 | 131 |
| 75 | Particles Floating on a Moving Fluid: A Dynamically Comprehensible Physical Fractal. Science, 1993, 259, 335-339. | 12.6 | 130 |
| 76 | The role of chaotic orbits in the determination of power spectra of passive scalars. Physics of Fluids, 1996, 8, 3094-3104. | 4.0 | 129 |
| 77 | Four-dimensional ensemble Kalman filtering. Tellus, Series A: Dynamic Meteorology and Oceanography, 2004, 56, 273-277. | 1.7 | 129 |
| 78 | Theoretical mechanics: Crowd synchrony on the Millennium Bridge. Nature, 2005, 438, 43-44. | 27.8 | 129 |
| 79 | Fractal boundaries for exit in Hamiltonian dynamics. Physical Review A, 1988, 38, 930-938. | 2.5 | 126 |
| 80 | Routes to chaotic scattering. Physical Review Letters, 1989, 63, 919-922. | 7.8 | 126 |
| 81 | Universal Impedance Fluctuations in Wave Chaotic Systems. Physical Review Letters, 2005, 94, 014102. | 7.8 | 123 |
| 82 | Chaotic flows and fast magnetic dynamos. Physics of Fluids, 1988, 31, 2992. | 1.4 | 122 |
| 83 | Transitions to Bubbling of Chaotic Systems. Physical Review Letters, 1996, 77, 5361-5364. | 7.8 | 122 |
| 84 | Preserving chaos: Control strategies to preserve complex dynamics with potential relevance to biological disorders. Physical Review E, 1995, 51, 102-110. | 2.1 | 121 |
| 85 | Bubbling transition. Physical Review E, 1996, 54, 1346-1360. | 2.1 | 119 |
| 86 | Network synchronization of groups. Physical Review E, 2007, 76, 056114. | 2.1 | 119 |
| 87 | Synchronization in networks of networks: The onset of coherent collective behavior in systems of interacting populations of heterogeneous oscillators. Physical Review E, 2008, 77, 036107. | 2.1 | 118 |
| 88 | Multifractal properties of snapshot attractors of random maps. Physical Review A, 1990, 41, 784-799. | 2.5 | 115 |
| 89 | Approximating the largest eigenvalue of network adjacency matrices. Physical Review E, 2007, 76, 056119. | 2.1 | 113 |
| 90 | Fractal dimension in nonhyperbolic chaotic scattering. Physical Review Letters, 1991, 66, 978-981. | 7.8 | 112 |

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| 91 | Experimental observation of crisis-induced intermittency and its critical exponent. Physical Review Letters, 1989, 63, 923-926. | 7.8 | 110 |
| 92 | Quantum manifestations of chaotic scattering. Physical Review Letters, 1992, 68, 3491-3494. | 7.8 | 109 |
| 93 | Optimal Periodic Orbits of Chaotic Systems. Physical Review Letters, 1996, 76, 2254-2257. | 7.8 | 108 |
| 94 | Are Three-Frequency Quasiperiodic Orbits to Be Expected in Typical Nonlinear Dynamical Systems?. Physical Review Letters, 1983, 51, 339-342. | 7.8 | 107 |
| 95 | Parametric instabilities induced by the coupling of high and low frequency plasma modes. Physics of Fluids, 1974, 17, 1413. | 1.4 | 104 |
| 96 | Spheromak tilting instability in cylindrical geometry. Physics of Fluids, 1981, 24, 1336. | 1.4 | 104 |
| 97 | Large Coupled Oscillator Systems with Heterogeneous Interaction Delays. Physical Review Letters, 2009, 103, 044101. | 7.8 | 103 |
| 98 | Theory of Microwave Emission by Velocity-Space Instabilities of an Intense Relativistic Electron Beam. IEEE Transactions on Plasma Science, 1975, 3, 1-5. | 1.3 | 102 |
| 99 | Extracting unstable periodic orbits from chaotic time series data. Physical Review E, 1997, 55, 5398-5417. | 2.1 | 102 |
| 100 | Multi-dimensioned intertwined basin boundaries: Basin structure of the kicked double rotor. Physica D: Nonlinear Phenomena, 1987, 25, 347-360. | 2.8 | 101 |
| 101 | Quasiperiodically forced dynamical systems with strange nonchaotic attractors. Physica D: Nonlinear Phenomena, 1987, 26, 277-294. | 2.8 | 101 |
| 102 | Predictability and Suppression of Extreme Events in a Chaotic System. Physical Review Letters, 2013, 111, 198701. | 7.8 | 101 |
| 103 | Attractors on an N-torus: Quasiperiodicity versus chaos. Physica D: Nonlinear Phenomena, 1985, 15, 354-373. | 2.8 | 98 |
| 104 | On-off intermittency: Power spectrum and fractal properties of time series. Physica D: Nonlinear Phenomena, 1996, 96, 66-99. | 2.8 | 98 |
| 105 | Exterior dimension of fat fractals. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 110, 1-4. | 2.1 | 96 |
| 106 | Fractal distribution of floaters on a fluid surface and the transition to chaos for random maps. Physica D: Nonlinear Phenomena, 1991, 53, 102-124. | 2.8 | 96 |
| 107 | Goodness of Ergodic Adiabatic Invariants. Physical Review Letters, 1979, 42, 1628-1631. | 7.8 | 95 |
| 108 | Unstable dimension variability: A source of nonhyperbolicity in chaotic systems. Physica D: Nonlinear Phenomena, 1997, 109, 81-90. | 2.8 | 95 |

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| 109 | Higher-dimensional targeting. Physical Review E, 1993, 47, 305-310. | 2.1 | 92 |
| 110 | Sign-singular measures: Fast magnetic dynamos, and high-Reynolds-number fluid turbulence. Physical Review Letters, 1992, 69, 2654-2657. | 7.8 | 90 |
| 111 | Super persistent chaotic transients. Ergodic Theory and Dynamical Systems, 1985, 5, 341-372. | 0.6 | 89 |
| 112 | Dimensions of strange nonchaotic attractors. Physics Letters, Section A: General, Atomic and Solid State Physics, 1989, 137, 167-172. | 2.1 | 87 |
| 113 | Transition to chaotic scattering. Physical Review A, 1990, 42, 7025-7040. | 2.5 | 85 |
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| 115 | The effect of network topology on the stability of discrete state models of genetic control. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8209-8214. | 7.1 | 85 |
| 116 | Predicting the statistics of wave transport through chaotic cavities by the random coupling model: A review and recent progress. Wave Motion, 2014, 51, 606-621. | 2.0 | 85 |
| 117 | Spectral properties of networks with community structure. Physical Review E, 2009, 80, 056114. | 2.1 | 84 |
| 118 | Theory of electron cyclotron resonance heating of tokamak plasmas. Physics of Fluids, 1980, 23, 1031. | 1.4 | 83 |
| 119 | Roundoff-induced periodicity and the correlation dimension of chaotic attractors. Physical Review A, 1988, 38, 3688-3692. | 2.5 | 83 |
| 120 | Theory of intense ion beam acceleration. Physics of Fluids, 1976, 19, 52. | 1.4 | 82 |
| 121 | Magnetic Compression of Intense Ion Rings. Physical Review Letters, 1974, 33, 355-358. | 7.8 | 81 |
| 122 | Using chaos to direct orbits to targets in systems describable by a one-dimensional map. Physical Review A, 1992, 45, 4165-4168. | 2.5 | 81 |
| 123 | Fractal measures of passively convected vector fields and scalar gradients in chaotic fluid flows. Physical Review A, 1989, 39, 3660-3671. | 2.5 | 80 |
| 124 | Multiple Attractor Bifurcations: A Source of Unpredictability in Piecewise Smooth Systems. Physical Review Letters, 1999, 83, 4281-4284. | 7.8 | 80 |
| 125 | Universal statistics of the scattering coefficient of chaotic microwave cavities. Physical Review E, 2005, 71, 056215. | 2.1 | 80 |
| 126 | Statistics of Impedance and Scattering Matrices in Chaotic Microwave Cavities: Single Channel Case. Electromagnetics, 2006, 26, 3-35. | 0.7 | 80 |

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| 127 | Is the dimension of chaotic attractors invariant under coordinate changes?. Journal of Statistical Physics, 1984, 36, 687-697. | 1.2 | 79 |
| 128 | The spectrum of fractal dimensions of passively convected scalar gradients in chaotic fluid flows. Physics of Fluids A, Fluid Dynamics, 1991, 3, 1017-1028. | 1.6 | 79 |
| 129 | Topology in chaotic scattering. Nature, 1999, 399, 315-316. | 27.8 | 79 |
| 130 | Universal behavior of impact oscillators near grazing incidence. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 201, 197-204. | 2.1 | 78 |
| 131 | A Machine Learning–Based Global Atmospheric Forecast Model. Geophysical Research Letters, 2020, 47, e2020GL087776. | 4.0 | 77 |
| 132 | Scaling law for characteristic times of noise-induced crises. Physical Review A, 1991, 43, 1754-1769. | 2.5 | 75 |
| 133 | Enhancing synchronism of chaotic systems. Physical Review E, 1994, 49, R945-R948. | 2.1 | 75 |
| 134 | Local ensemble Kalman filtering in the presence of model bias. Tellus, Series A: Dynamic Meteorology and Oceanography, 2006, 58, 293-306. | 1.7 | 75 |
| 135 | WADA BASIN BOUNDARIES IN CHAOTIC SCATTERING. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1996, 06, 251-265. | 1.7 | 74 |
| 136 | Complex dynamics and synchronization of delayed-feedback nonlinear oscillators. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 343-366. | 3.4 | 74 |
| 137 | External periodic driving of large systems of globally coupled phase oscillators. Chaos, 2008, 18, 037112. | 2.5 | 73 |
| 138 | Unstable periodic orbits and the dimension of chaotic attractors. Physical Review A, 1987, 36, 3522-3524. | 2.5 | 72 |
| 139 | Cluster synchrony in systems of coupled phase oscillators with higher-order coupling. Physical Review E, 2011, 84, 036208. | 2.1 | 70 |
| 140 | Spatiotemporal dynamics in a dispersively coupled chain of nonlinear oscillators. Physical Review A, 1989, 39, 4835-4842. | 2.5 | 69 |
| 141 | Lower hybrid wave scattering by density fluctuations. Physics of Fluids, 1979, 22, 1732. | 1.4 | 68 |
| 142 | Algebraic escape in higher dimensional Hamiltonian systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 151, 395-400. | 2.1 | 68 |
| 143 | Extracting Envelopes of Rossby Wave Packets. Monthly Weather Review, 2003, 131, 1011-1017. | 1.4 | 68 |
| 144 | Statistical Prediction and Measurement of Induced Voltages on Components Within Complicated Enclosures: A Wave-Chaotic Approach. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 758-771. | 2.2 | 68 |

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| 145 | Explosions of chaotic sets. Physica D: Nonlinear Phenomena, 2000, 144, 44-61. | 2.8 | 67 |
| 146 | Growing networks with geographical attachment preference: Emergence of small worlds. Physical Review E, 2004, 69, 026108. | 2.1 | 67 |
| 147 | Inhibition Causes Ceaseless Dynamics in Networks of Excitable Nodes. Physical Review Letters, 2014, 112, 138103. | 7.8 | 67 |
| 148 | Spatiotemporal Bifurcation Phenomena with Temporal Period Doubling: Patterns in Vibrated Sand. Physical Review Letters, 1998, 80, 3495-3498. | 7.8 | 66 |
| 149 | Turbulent Heating in Computer Simulations of the Modified Plasma Two-Stream Instability. Physical Review Letters, 1972, 28, 88-91. | 7.8 | 65 |
| 150 | Quantum chaos in systems with ray splitting. Physical Review A, 1992, 46, 6193-6210. | 2.5 | 65 |
| 151 | Controlling Chaos. Physics Today, 1995, 48, 34-40. | 0.3 | 65 |
| 152 | Comment on "Long time evolution of phase oscillator systems"[Chaos <b>19</b>, 023117 (2009)]. Chaos, 2011, 21, 025112. | 2.5 | 64 |
| 153 | Time-dependent multimode simulation of gyrotron oscillators. Physical Review A, 1991, 43, 6166-6176. | 2.5 | 63 |
| 154 | Bifurcations and Strange Behavior in Instability Saturation by Nonlinear Mode Coupling. Physical Review Letters, 1980, 44, 453-456. | 7.8 | 62 |
| 155 | Band-in-band segregation of multidisperse granular mixtures. Europhysics Letters, 2004, 66, 205-211. | 2.0 | 62 |
| 156 | Statistical properties of avalanches in networks. Physical Review E, 2012, 85, 066131. | 2.1 | 62 |
| 157 | Introduction to Focus Issue: When machine learning meets complex systems: Networks, chaos, and nonlinear dynamics. Chaos, 2020, 30, 063151. | 2.5 | 62 |
| 158 | Magnetic insulation and microwave generation. Applied Physics Letters, 1975, 27, 378-380. | 3.3 | 61 |
| 159 | Linear waves and instabilities on magnetically insulated gaps. Physics of Fluids, 1981, 24, 1821. | 1.4 | 60 |
| 160 | Experimental confirmation of the scaling theory for noise-induced crises. Physical Review Letters, 1991, 66, 1947-1950. | 7.8 | 60 |
| 161 | Statistics of Impedance and Scattering Matrices of Chaotic Microwave Cavities with Multiple Ports. Electromagnetics, 2006, 26, 37-55. | 0.7 | 60 |
| 162 | Nonlinear Evolution of Whistler Instabilities. Physics of Fluids, 1972, 15, 2314. | 1.4 | 59 |

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| 164 | Multiple coexisting attractors, Basin boundaries and basic sets. Physica D: Nonlinear Phenomena, 1988, 32, 296-305. | 2.8 | 58 |
| 165 | Controlling chaos using time delay coordinates via stabilization of periodic orbits. Physical Review E, 1995, 51, 2955-2962. | 2.1 | 58 |
| 166 | Optimal periodic orbits of chaotic systems occur at low period. Physical Review E, 1996, 54, 328-337. | 2.1 | 58 |
| 167 | Resynchronization of circadian oscillators and the east-west asymmetry of jet-lag. Chaos, 2016, 26, 094811. | 2.5 | 58 |
| 168 | Cross-field injection, propagation, and energy deposition of intense ion beams with application to tokamak plasma heating. Nuclear Fusion, 1977, 17, 1057-1065. | 3.5 | 56 |
| 169 | Using chaos to target stationary states of flows. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 169, 349-354. | 2.1 | 56 |
| 170 | Saddle-Node Bifurcations on Fractal Basin Boundaries. Physical Review Letters, 1995, 75, 2482-2485. | 7.8 | 56 |
| 171 | Chaotic flows and kinematic magnetic dynamos: A tutorial review. Physics of Plasmas, 1998, 5, 1636-1646. | 1.9 | 55 |
| 172 | Fractal Properties of Robust Strange Nonchaotic Attractors. Physical Review Letters, 2001, 87, 254101. | 7.8 | 55 |
| 173 | Characterization of fluctuations of impedance and scattering matrices in wave chaotic scattering. Physical Review E, 2006, 73, 046208. | 2.1 | 55 |
| 174 | Characterization of on-off intermittent time series. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 207, 173-179. | 2.1 | 54 |
| 175 | Targeting in Hamiltonian systems that have mixed regular/chaotic phase spaces. Chaos, 1997, 7, 512-519. | 2.5 | 54 |
| 176 | Emergence of synchronization in complex networks of interacting dynamical systems. Physica D: Nonlinear Phenomena, 2006, 224, 114-122. | 2.8 | 54 |
| 177 | Combining machine learning with knowledge-based modeling for scalable forecasting and subgrid-scale closure of large, complex, spatiotemporal systems. Chaos, 2020, 30, 053111. | 2.5 | 54 |
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| 179 | Chaotic Fluid Convection and the Fractal Nature of Passive Scalar Gradients. Physical Review Letters, 1988, 61, 2839-2842. | 7.8 | 52 |
| 180 | Universal properties of two-port scattering, impedance, and admittance matrices of wave-chaotic systems. Physical Review E, 2006, 74, 036213. | 2.1 | 52 |

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| 181 | Microinstabilities and the production of short-wavelength irregularities in the auroral *F* region. Journal of Geophysical Research, 1975, 80, 4599-4602. | 3.3 | 51 |
| 182 | Observing chaos: Deducing and tracking the state of a chaotic system from limited observation. Physical Review E, 1994, 49, 2650-2660. | 2.1 | 51 |
| 183 | Ray Splitting and Quantum Chaos. Physical Review Letters, 1996, 76, 2476-2479. | 7.8 | 50 |
| 184 | Assessing a local ensemble Kalman filter: perfect model experiments with the National Centers for Environmental Prediction global model. Tellus, Series A: Dynamic Meteorology and Oceanography, 2005, 57, 528-545. | 1.7 | 50 |
| 185 | Assimilating non-local observations with a local ensemble Kalman filter. Tellus, Series A: Dynamic Meteorology and Oceanography, 2007, 59, 719-730. | 1.7 | 49 |
| 186 | The *k* spectrum of ionospheric irregularities. Journal of Geophysical Research, 1974, 79, 2469-2472. | 3.3 | 48 |
| 187 | Two‐dimensional turbulence in equatorial spread *F*. Journal of Geophysical Research, 1978, 83, 4369-4372. | 3.3 | 48 |
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