

# R. Paul Drake

## List of Publications by Year in descending order

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252  
papers

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all docs

255  
docs citations

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times ranked

3128  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | The design of a photoionization front experiment using the Z-Machine as a driving source and estimated measurements. <i>Physics of Plasmas</i> , 2021, 28, .                                   | 1.9  | 2         |
| 2  | Using simultaneous x-ray diffraction and velocity interferometry to determine material strength in shock-compressed diamond. <i>Applied Physics Letters</i> , 2020, 116, .                     | 3.3  | 10        |
| 3  | Electron acceleration in laboratory-produced turbulent collisionless shocks. <i>Nature Physics</i> , 2020, 16, 916-920.  | 16.7 | 60        |
| 4  | Implementation of a Talbot-Lau x-ray deflectometer diagnostic platform for the OMEGA EP laser. <i>Review of Scientific Instruments</i> , 2020, 91, 023511.                                     | 1.3  | 12        |
| 5  | Atomic modeling of photoionization fronts in nitrogen gas. <i>Physics of Plasmas</i> , 2019, 26, 052901.   | 1.9  | 3         |
| 6  | Design and Scaling of an Omega-EP Experiment to Study Cold Streams Feeding Early Galaxies. <i>Astrophysical Journal, Supplement Series</i> , 2019, 245, 27.                                    | 7.7  | 0         |
| 7  | How high energy fluxes may affect Rayleigh-Taylor instability growth in young supernova remnants. <i>Nature Communications</i> , 2018, 9, 1564.  | 12.8 | 84        |
| 8  | Regimes of the Vishniac-Ryu Decelerating Shock Instability. <i>Astrophysical Journal</i> , 2018, 868, 23.  | 4.5  | 4         |
| 9  | Construction and validation of a statistical model for the nonlinear Kelvin-Helmholtz instability under compressible, multimode conditions. <i>Physics of Plasmas</i> , 2018, 25, 122112.      | 1.9  | 2         |
| 10 | Development of a backlit-multi-pinhole radiography source. <i>Review of Scientific Instruments</i> , 2018, 89, 10G110.   | 1.3  | 0         |
| 11 | Experimental considerations to observe two ionizing fronts in systems with a sharp absorption edge. <i>Review of Scientific Instruments</i> , 2018, 89, 10G104.                                | 1.3  | 1         |
| 12 | Laboratory Photoionization Fronts in Nitrogen Gas: A Numerical Feasibility and Parameter Study. <i>Astrophysical Journal</i> , 2018, 858, 22.  | 4.5  | 3         |
| 13 | Ablative stabilization of Rayleigh-Taylor instabilities resulting from a laser-driven radiative shock. <i>Physics of Plasmas</i> , 2018, 25, .   | 1.9  | 18        |
| 14 | Soft X-ray emission from laser-irradiated gold foils. <i>Physics of Plasmas</i> , 2018, 25, .  | 1.9  | 8         |
| 15 | Enhanced accuracy of x-ray spectra reconstruction from filtered diode array measurements by adding a time integrated spectrometer. <i>Review of Scientific Instruments</i> , 2017, 88, 043507. | 1.3  | 6         |
| 16 | Mitigation of hot electrons from laser-plasma instabilities in high-Z, highly ionized plasmas. <i>Physics of Plasmas</i> , 2017, 24, .   | 1.9  | 14        |
| 17 | Observation of dual-mode, Kelvin-Helmholtz instability vortex merger in a compressible flow. <i>Physics of Plasmas</i> , 2017, 24, .   | 1.9  | 18        |
| 18 | Spatially resolved density and ionization measurements of shocked foams using x-ray fluorescence. <i>Journal of Applied Physics</i> , 2016, 120, 125901.                                       | 2.5  | 5         |

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|----|---|------|-----------|
| 19 | Measurement of high-dynamic range x-ray Thomson scattering spectra for the characterization of nano-plasmas at LCLS. <i>Review of Scientific Instruments</i> , 2016, 87, 11E709.  | 1.3  | 4         |
| 20 | Calculation of Debye-Scherrer diffraction patterns from highly stressed polycrystalline materials. <i>Journal of Applied Physics</i> , 2016, 119, .   | 2.5  | 13        |
| 21 | Measurements of laser generated soft X-ray emission from irradiated gold foils. <i>Review of Scientific Instruments</i> , 2016, 87, 11D609.   | 1.3  | 7         |
| 22 | Detailed characterization of the LLNL imaging proton spectrometer. <i>Review of Scientific Instruments</i> , 2016, 87, 11D831.  | 1.3  | 1         |
| 23 | DESIGN OF LABORATORY EXPERIMENTS TO STUDY PHOTOIONIZATION FRONTS DRIVEN BY THERMAL SOURCES. <i>Astrophysical Journal</i> , 2016, 833, 249.  | 4.5  | 8         |
| 24 | Mitigation of hard x-ray background in backlit pinhole imagers. <i>Review of Scientific Instruments</i> , 2016, 87, 11E341.   | 1.3  | 3         |
| 25 | Laboratory analogue of a supersonic accretion column in a binary star system. <i>Nature Communications</i> , 2016, 7, ncomms11899.  | 12.8 | 15        |
| 26 | Tracking the density evolution in counter-propagating shock waves using imaging X-ray scattering. <i>Applied Physics Letters</i> , 2016, 109, 031108.   | 3.3  | 11        |
| 27 | Spectral measurements of asymmetrically irradiated capsule backlighters. <i>Review of Scientific Instruments</i> , 2016, 87, 11E338.  | 1.3  | 2         |
| 28 | Energetic electrons driven in the polarization direction of an intense laser beam incident normal to a solid target. <i>High Energy Density Physics</i> , 2016, 19, 23-28.  | 1.5  | 1         |
| 29 | Demonstration of imaging X-ray Thomson scattering on OMEGA EP. <i>Review of Scientific Instruments</i> , 2016, 87, 11E550.  | 1.3  | 1         |
| 30 | Measurement of Richtmyer-Meshkov mode coupling under steady shock conditions and at high energy density. <i>High Energy Density Physics</i> , 2015, 17, 263-269.  | 1.5  | 23        |
| 31 | Observation of Single-Mode, Kelvin-Helmholtz Instability in a Supersonic Flow. <i>Physical Review Letters</i> , 2015, 115, 145001.  | 7.8  | 32        |
| 32 | Measurements of the energy spectrum of electrons emanating from solid materials irradiated by a picosecond laser. <i>Physics of Plasmas</i> , 2015, 22, .   | 1.9  | 1         |
| 33 | Collisionless shock experiments with lasers and observation of Weibel instabilities. <i>Physics of Plasmas</i> , 2015, 22, .  | 1.9  | 51        |
| 34 | Observation of magnetic field generation via the Weibel instability in interpenetrating plasma flows. <i>Nature Physics</i> , 2015, 11, 173-176.  | 16.7 | 236       |
| 35 | Developed turbulence and nonlinear amplification of magnetic fields in laboratory and astrophysical plasmas. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 8211-8215. | 7.1  | 52        |
| 36 | Richtmyer-Meshkov evolution under steady shock conditions in the high-energy-density regime. <i>Applied Physics Letters</i> , 2015, 106, .  | 3.3  | 30        |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 37 | Experimental results from magnetized-jet experiments executed at the Jupiter Laser Facility. High Energy Density Physics, 2015, 17, 52-62.  | 1.5  | 19        |
| 38 | Measurement of high-energy (10 <sup>4</sup> -60 keV) x-ray spectral line widths with eV accuracy. Review of Scientific Instruments, 2014, 85, 11D618.   | 1.3  | 6         |
| 39 | Rotating plasma disks in dense Z-pinch experiments. , 2014, , .   |      | 2         |
| 40 | Demonstration of x-ray fluorescence imaging of a high-energy-density plasma. Review of Scientific Instruments, 2014, 85, 11E602.  | 1.3  | 6         |
| 41 | Focus on high energy density physics. New Journal of Physics, 2014, 16, 065007.   | 2.9  | 4         |
| 42 | Design of a supernova-relevant Rayleigh-Taylor experiment on the National Ignition Facility. I. Planar target design and diagnostics. High Energy Density Physics, 2014, 12, 35-45.                 | 1.5  | 7         |
| 43 | Prospects of turbulence studies in high-energy density laser-generated plasma: Numerical investigations in two dimensions. High Energy Density Physics, 2014, 11, 1-11.                             | 1.5  | 1         |
| 44 | Turbulent amplification of magnetic fields in laboratory laser-produced shock waves. Nature Physics, 2014, 10, 520-524.   | 16.7 | 84        |
| 45 | Spatially-resolved X-ray scattering measurements of a planar blast wave. High Energy Density Physics, 2014, 11, 75-79.  | 1.5  | 9         |
| 46 | A design of a two-dimensional, supersonic KH experiment on OMEGA-EP. High Energy Density Physics, 2013, 9, 672-686.   | 1.5  | 20        |
| 47 | What is certain and what is not so certain in our knowledge of Rayleigh-Taylor mixing?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20130266. | 3.4  | 50        |
| 48 | Structure and Dynamics of Colliding Plasma Jets. Physical Review Letters, 2013, 111, 235003.  | 7.8  | 35        |
| 49 | Spline-Based Emulators for Radiative Shock Experiments With Measurement Error. Journal of the American Statistical Association, 2013, 108, 411-428.   | 3.1  | 15        |
| 50 | Comparison between Kelvin-Helmholtz instability experiments on OMEGA and simulation results using the CRASH code. High Energy Density Physics, 2013, 9, 148-151.                                    | 1.5  | 4         |
| 51 | Modeling HEDLA magnetic field generation experiments on laser facilities. High Energy Density Physics, 2013, 9, 172-177.  | 1.5  | 16        |
| 52 | Simulation of laser-driven, ablated plasma flows in collisionless shock experiments on OMEGA and the NIF. High Energy Density Physics, 2013, 9, 192-197.  | 1.5  | 5         |
| 53 | Simulating radiative shocks with the CRASH laser package. High Energy Density Physics, 2013, 9, 8-16.   | 1.5  | 13        |
| 54 | The production and evolution of multiple converging radiative shock waves in gas-filled cylindrical liner z-pinch experiments. High Energy Density Physics, 2013, 9, 52-62.                         | 1.5  | 18        |

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|----|--|------|-----------|
| 55 | A design of a two-dimensional, multimode RM experiment on OMEGA-EP. High Energy Density Physics, 2013, 9, 122-131.   | 1.5  | 19        |
| 56 | Simulations of radiative effects on the Rayleigh-Taylor instability using the CRASH code. High Energy Density Physics, 2013, 9, 303-308.   | 1.5  | 4         |
| 57 | Early-time evolution of a radiative shock. High Energy Density Physics, 2013, 9, 315-318.  | 1.5  | 4         |
| 58 | Hybrid Vlasov-Fokker-Planck-Maxwell simulations of fast electron transport and the time dependence of $K$ -shell excitation in a mid- $Z$ metallic target. New Journal of Physics, 2013, 15, 015017. | 2.9  | 10        |
| 59 | Modeling of aspheric, diverging hydrodynamic instability experiments on the National Ignition Facility. High Energy Density Physics, 2013, 9, 439-447.   | 1.5  | 10        |
| 60 | Measurements of turbulent mixing due to Kelvin-Helmholtz instability in high-energy-density plasmas. High Energy Density Physics, 2013, 9, 47-51.  | 1.5  | 17        |
| 61 | Visualizing electromagnetic fields in laser-produced counter-streaming plasma experiments for collisionless shock laboratory astrophysics. Physics of Plasmas, 2013, 20, .                           | 1.9  | 36        |
| 62 | Experimental observations of turbulent mixing due to Kelvin-Helmholtz instability on the OMEGA Laser Facility. Physics of Plasmas, 2012, 19, .   | 1.9  | 26        |
| 63 | Three-dimensional modeling and analysis of a high energy density Kelvin-Helmholtz experiment. Physics of Plasmas, 2012, 19, .  | 1.9  | 18        |
| 64 | An evaluation of high energy bremsstrahlung background in point-projection x-ray radiography experiments. Review of Scientific Instruments, 2012, 83, 10E528.  | 1.3  | 12        |
| 65 | of Scientific Instruments, 2012, 83, 10E114.   | 1.3  | 11        |
| 66 | Measurement of Radiative Shock Properties by X-Ray Thomson Scattering. Physical Review Letters, 2012, 108, 145001.   | 7.8  | 34        |
| 67 | Validation of a Turbulent Kelvin-Helmholtz Shear Layer Model Using a High-Energy-Density OMEGA Laser Experiment. Physical Review Letters, 2012, 109, 155004.   | 7.8  | 39        |
| 68 | Magnetic field generation by Biermann battery and Weibel instability in laboratory shock waves. EAS Publications Series, 2012, 58, 23-26.  | 0.3  | 1         |
| 69 | Generation of scaled protogalactic seed magnetic fields in laser-produced shock waves. Nature, 2012, 481, 480-483.   | 27.8 | 113       |
| 70 | DESIGN CONSIDERATIONS FOR UNMAGNETIZED COLLISIONLESS-SHOCK MEASUREMENTS IN HOMOLOGOUS FLOWS. Astrophysical Journal, 2012, 749, 171.  | 4.5  | 38        |
| 71 | Rayleigh-Taylor instability simulations with CRASH. High Energy Density Physics, 2012, 8, 71-75.   | 1.5  | 5         |
| 72 | Studying astrophysical collisionless shocks with counterstreaming plasmas from high power lasers. High Energy Density Physics, 2012, 8, 38-45.   | 1.5  | 82        |

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|----|--|------|-----------|
| 73 | Self-organized electromagnetic field structures in laser-produced counter-streaming plasmas. <i>Nature Physics</i> , 2012, 8, 809-812.                                   | 16.7 | 118       |
| 74 | Feasibility study of the standing accretion shock instability experiment at the National Ignition Facility. <i>High Energy Density Physics</i> , 2012, 8, 331-340.       | 1.5  | 1         |
| 75 | Late-time breakup of laser-driven hydrodynamics experiments. <i>High Energy Density Physics</i> , 2012, 8, 360-365.  | 1.5  | 4         |
| 76 | Simulating radiative shocks in nozzle shock tubes. <i>High Energy Density Physics</i> , 2012, 8, 161-169.  | 1.5  | 13        |
| 77 | The impact of recent advances in laboratory astrophysics on our understanding of the cosmos. <i>Reports on Progress in Physics</i> , 2012, 75, 036901.                   | 20.1 | 51        |
| 78 | SPIKE PENETRATION IN BLAST-WAVE-DRIVEN INSTABILITIES. <i>Astrophysical Journal</i> , 2012, 744, 184.   | 4.5  | 11        |
| 79 | CRASH: A BLOCK-ADAPTIVE-MESH CODE FOR RADIATIVE SHOCK HYDRODYNAMICSâ€™ IMPLEMENTATION AND VERIFICATION. <i>Astrophysical Journal, Supplement Series</i> , 2011, 194, 23. | 7.7  | 91        |
| 80 | Design of experiments to observe radiation stabilized Rayleigh-Taylor instability growth at an embedded decelerating interface. <i>Physics of Plasmas</i> , 2011, 18, .  | 1.9  | 10        |
| 81 | Statistical inference in the presence of an inclination effect in laboratory radiative shock experiments. <i>Astrophysics and Space Science</i> , 2011, 336, 219-224.    | 1.4  | 7         |
| 82 | Astrophysically relevant radiation hydrodynamics experiment at the National Ignition Facility. <i>Astrophysics and Space Science</i> , 2011, 336, 207-211.               | 1.4  | 19        |
| 83 | Radiative effects in radiative shocks in shock tubes. <i>High Energy Density Physics</i> , 2011, 7, 130-140.   | 1.5  | 38        |
| 84 | A physics informed emulator for laser-driven radiating shock simulations. <i>Reliability Engineering and System Safety</i> , 2011, 96, 1194-1207.                        | 8.9  | 14        |
| 85 | Current Filamentation Instability in Laser Wakefield Accelerators. <i>Physical Review Letters</i> , 2011, 106, 105001.   | 7.8  | 37        |
| 86 | Isothermal, mass-limited rarefactions in planar and spherical geometry. <i>Physics of Plasmas</i> , 2011, 18, .  | 1.9  | 6         |
| 87 | Repeatability in radiative shock tube experiments. <i>High Energy Density Physics</i> , 2010, 6, 157-161.  | 1.5  | 24        |
| 88 | Simulation of fabrication variations in supernova hydrodynamics experiments. <i>High Energy Density Physics</i> , 2010, 6, 135-142.                                      | 1.5  | 1         |
| 89 | Anti-diffusive radiation flow in the cooling layer of a radiating shock. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2010, 111, 2095-2105.      | 2.3  | 11        |
| 90 | Using wall shocks to measure preheat in laser-irradiated, high-energy-density, hydrodynamics experiments. <i>High Energy Density Physics</i> , 2010, 6, 215-218.         | 1.5  | 8         |

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|-----|--|------|-----------|
| 91  | The possible effects of magnetic fields on laser experiments of Rayleigh-Taylor instabilities. High Energy Density Physics, 2010, 6, 162-165.                  | 1.5  | 22        |
| 92  | Imaging scattered x-ray radiation for measurement of local electron density in high-energy-density experiments. High Energy Density Physics, 2010, 6, 194-199. | 1.5  | 7         |
| 93  | Experimental design to generate strong shear layers in a high-energy-density plasma. High Energy Density Physics, 2010, 6, 179-184.                            | 1.5  | 4         |
| 94  | Development of a short duration backlit pinhole for radiography on the National Ignition Facility. Review of Scientific Instruments, 2010, 81, 10E536.         | 1.3  | 20        |
| 95  | Theory of radiative shocks in the mixed, optically thick-thin case. Physics of Plasmas, 2010, 17, .  | 1.9  | 30        |
| 96  | Laser driven supersonic flow over a compressible foam surface on the Nike laser. Physics of Plasmas, 2010, 17, 056310.   | 1.9  | 7         |
| 97  | Wall shocks in high-energy-density shock tube experiments. Physics of Plasmas, 2009, 16, 112705.   | 1.9  | 38        |
| 98  | Observation of a Kelvin-Helmholtz Instability in a High-Energy-Density Plasma on the Omega Laser. Physical Review Letters, 2009, 103, 045005.                  | 7.8  | 86        |
| 99  | Stellar explosions, instabilities, and turbulence. Physics of Plasmas, 2009, 16, 041004.   | 1.9  | 12        |
| 100 | TWO-DIMENSIONAL BLAST-WAVE-DRIVEN RAYLEIGH-TAYLOR INSTABILITY: EXPERIMENT AND SIMULATION. Astrophysical Journal, 2009, 696, 749-759.                           | 4.5  | 61        |
| 101 | Perspectives on high-energy-density physics. Physics of Plasmas, 2009, 16, .   | 1.9  | 105       |
| 102 | Design of jet-driven, radiative-blast-wave experiments for 10 <sup>16</sup> J class lasers. Astrophysics and Space Science, 2009, 322, 97-100.                 | 1.4  | 0         |
| 103 | Modeling of multi-interface, diverging, hydrodynamic experiments for the National Ignition Facility. Astrophysics and Space Science, 2009, 322, 57-63.         | 1.4  | 6         |
| 104 | Classification of and recent research involving radiative shocks. Astrophysics and Space Science, 2009, 322, 77-84.  | 1.4  | 38        |
| 105 | Image processing of radiographs in 3D Rayleigh-Taylor decelerating interface experiments. Astrophysics and Space Science, 2009, 322, 49-55.                    | 1.4  | 5         |
| 106 | How to see a black hole. Nature Physics, 2009, 5, 786-787.   | 16.7 | 7         |
| 107 | Approaches to turbulence in high-energy-density experiments. Physica Scripta, 2008, T132, 014022.  | 2.5  | 5         |
| 108 | Performance of Au transmission photocathode on a microchannel plate detector. Review of Scientific Instruments, 2008, 79, 10E912.                              | 1.3  | 2         |

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|-----|--|------|-----------|
| 109 | Temporal dispersion of a spectrometer. Review of Scientific Instruments, 2008, 79, 10F545.   | 1.3  | 31        |
| 110 | Energy Balance and Structural Regimes of Radiative Shocks in Optically Thick Media. IEEE Transactions on Plasma Science, 2007, 35, 171-180.                    | 1.3  | 12        |
| 111 | Numerical evaluation of the impact of laser preheat on interface structure and instability. Physics of Plasmas, 2007, 14, 062703.                              | 1.9  | 7         |
| 112 | Theory of radiative shocks in optically thick media. Physics of Plasmas, 2007, 14, 043301.   | 1.9  | 59        |
| 113 | Flash Code Simulations of Rayleigh-Taylor and Richtmyer-Meshkov Instabilities in Laser-Driven Experiments. Astrophysics and Space Science, 2007, 307, 227-231. | 1.4  | 5         |
| 114 | Assessing Mix Layer Amplitude in 3D Decelerating Interface Experiments. Astrophysics and Space Science, 2007, 307, 115-119.                                    | 1.4  | 12        |
| 115 | Experimental astrophysics with high power lasers and Zpinches. Reviews of Modern Physics, 2006, 78, 755-807.   | 45.6 | 640       |
| 116 | Three-dimensional model of x-ray induced microchannel plate output. Review of Scientific Instruments, 2006, 77, 10E312.  | 1.3  | 5         |
| 117 | Observation of collapsing radiative shocks in laboratory experiments. Physics of Plasmas, 2006, 13, 082901.  | 1.9  | 85        |
| 118 | Dual, orthogonal, backlit pinhole radiography in OMEGA experiments. Review of Scientific Instruments, 2006, 77, 10E327.  | 1.3  | 37        |
| 119 | Descriptions of Fluids and Plasmas. , 2006, , 19-53.   |      | 0         |
| 120 | Radiation Hydrodynamics. , 2006, , 267-334.  |      | 3         |
| 121 | Creating High-Energy-Density Conditions. , 2006, , 335-390.  |      | 36        |
| 122 | Laboratory-astronomy jet experiments at the omega laser facility. European Physical Journal Special Topics, 2006, 133, 1019-1023.                              | 0.2  | 2         |
| 123 | A Validation Test of the Flux-limited Diffusion Approximation for Radiation Hydrodynamics. Astrophysical Journal, 2005, 626, 616-625.                          | 4.5  | 7         |
| 124 | Radiation-coupled front-tracking simulations for laser-driven shock experiments. Nonlinear Analysis: Theory, Methods & Applications, 2005, 63, e1635-e1644.    | 1.1  | 2         |
| 125 | Progress Toward the Study of Laboratory Scale, Astrophysically Relevant, Turbulent Plasmas. Astrophysics and Space Science, 2005, 298, 9-16.                   | 1.4  | 16        |
| 126 | Radiative Shocks in Astrophysics and the Laboratory. Astrophysics and Space Science, 2005, 298, 49-59.   | 1.4  | 46        |



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|-----|---|-----|-----------|
| 127 | Recent Experimental Results and Modelling of High-Mach-Number Jets and the Transition to Turbulence. <i>Astrophysics and Space Science</i> , 2005, 298, 121-128.                      | 1.4 | 8         |
| 128 | Preheat Issues in Hydrodynamic Hedla Experiments. <i>Astrophysics and Space Science</i> , 2005, 298, 267-271.   | 1.4 | 7         |
| 129 | Zeus-2D Simulations of Laser-Driven Radiative Shock Experiments. <i>Astrophysics and Space Science</i> , 2005, 298, 273-276.  | 1.4 | 5         |
| 130 | Transition to turbulence and effect of initial conditions on three-dimensional compressible mixing in planar blast-wave-driven systems. <i>Physics of Plasmas</i> , 2005, 12, 056317. | 1.9 | 34        |
| 131 | Hydrodynamic instabilities in astrophysics and in laboratory high-energyâ€‘density systems. <i>Plasma Physics and Controlled Fusion</i> , 2005, 47, B419-B440.                        | 2.1 | 28        |
| 132 | Mini-conference and related sessions on laboratory plasma astrophysics. <i>Physics of Plasmas</i> , 2004, 11, 2976-2983.  | 1.9 | 3         |
| 133 | The effect of a short-wavelength mode on the evolution of a long-wavelength perturbation driven by a strong blast wave. <i>Physics of Plasmas</i> , 2004, 11, 5507-5519.              | 1.9 | 33        |
| 134 | Nonlinear mixing behavior of the three-dimensional Rayleighâ€‘Taylor instability at a decelerating interface. <i>Physics of Plasmas</i> , 2004, 11, 2829-2837.                        | 1.9 | 46        |
| 135 | A Laboratory Investigation of Supersonic Clumpy Flows: Experimental Design and Theoretical Analysis. <i>Astrophysical Journal</i> , 2004, 604, 213-221.                               | 4.5 | 21        |
| 136 | Plasma heating via parametric beating of AlfvÃ©n waves, with heliospheric applications. <i>Physics of Plasmas</i> , 2003, 10, 4800-4810.  | 1.9 | 3         |
| 137 | The time scale for the transition to turbulence in a high Reynolds number, accelerated flow. <i>Physics of Plasmas</i> , 2003, 10, 614-622.   | 1.9 | 113       |
| 138 | Rayleighâ€‘Taylor growth at decelerating interfaces. <i>Physics of Plasmas</i> , 2002, 9, 382-384.  | 1.9 | 8         |
| 139 | Ion plasma waves induced by frustrated Debye shielding. <i>Physics of Plasmas</i> , 2002, 9, 267-274.   | 1.9 | 6         |
| 140 | On Validating an Astrophysical Simulation Code. <i>Astrophysical Journal</i> , Supplement Series, 2002, 143, 201-229.   | 7.7 | 176       |
| 141 | Comment on â€‘Collisionless shock and supernova remnant simulations on VULCANâ€‘[ <i>Phys. Plasmas</i> 8, 2439 (2001)]. <i>Physics of Plasmas</i> , 2002, 9, 727-728.                 | 1.9 | 14        |
| 142 | Experiments to Produce a Hydrodynamically Unstable, Spherically Diverging System of Relevance to Instabilities in Supernovae. <i>Astrophysical Journal</i> , 2002, 564, 896-908.      | 4.5 | 55        |
| 143 | Design of flyer-plate-driven compressible turbulent mix experiments using Z. <i>Physics of Plasmas</i> , 2002, 9, 3545-3551.  | 1.9 | 8         |
| 144 | Magnetohydrodynamic scaling: From astrophysics to the laboratory. <i>Physics of Plasmas</i> , 2001, 8, 1804-1816.   | 1.9 | 178       |

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|-----|--|------|-----------|
| 145 | Late-time hohlraum pressure dynamics in supernova remnant experiments. <i>Physics of Plasmas</i> , 2001, 8, 2609-2612.   | 1.9  | 11        |
| 146 | Alternative Mechanism for $\alpha$ Emission in Laser-Produced Plasmas. <i>Physical Review Letters</i> , 2001, 86, 3787-3790.   | 7.8  | 2         |
| 147 | Supernova Experiments on the Nova Laser. <i>Astrophysical Journal, Supplement Series</i> , 2000, 127, 365-369.   | 7.7  | 17        |
| 148 | Progress toward the Laboratory Simulation of Young Supernova Remnants. <i>Astrophysical Journal, Supplement Series</i> , 2000, 127, 305-310.                         | 7.7  | 11        |
| 149 | Laser-induced fluorescence characterization of ions emitted from hollow cathodes. <i>IEEE Transactions on Plasma Science</i> , 2000, 28, 1664-1675.                  | 1.3  | 41        |
| 150 | Criteria for Scaled Laboratory Simulations of Astrophysical MHD Phenomena. <i>Astrophysical Journal, Supplement Series</i> , 2000, 127, 465-468.                     | 7.7  | 184       |
| 151 | The design of laboratory experiments to produce collisionless shocks of cosmic relevance. <i>Physics of Plasmas</i> , 2000, 7, 4690-4698.                            | 1.9  | 81        |
| 152 | Laser experiments to simulate supernova remnants. <i>Physics of Plasmas</i> , 2000, 7, 2142-2148.  | 1.9  | 18        |
| 153 | A review of astrophysics experiments on intense lasers. <i>Physics of Plasmas</i> , 2000, 7, 1641-1652.  | 1.9  | 188       |
| 154 | INTRODUCTION: Second International Workshop on Laboratory Astrophysics with Intense Lasers. <i>Astrophysical Journal, Supplement Series</i> , 2000, 127, 211-211.    | 7.7  | 5         |
| 155 | Experimental Measurements of Hydrodynamic Instabilities on Nova of Relevance to Astrophysics. <i>Astrophysical Journal, Supplement Series</i> , 2000, 127, 325-331.  | 7.7  | 1         |
| 156 | An Evaluation of the Richtmyer-Meshkov Instability in Supernova Remnant Formation. <i>Astrophysical Journal</i> , 1999, 511, 335-340.                                | 4.5  | 70        |
| 157 | Measurement of the frequency and spectral width of the Langmuir wave spectrum driven by stimulated Raman scattering. <i>Physics of Plasmas</i> , 1999, 6, 4284-4292. | 1.9  | 5         |
| 158 | Modeling Astrophysical Phenomena in the Laboratory with Intense Lasers. <i>Science</i> , 1999, 284, 1488-1493.   | 12.6 | 369       |
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