

Jean-Luc Vay

List of Publications by Year in descending order

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165
papers

3,817
citations

159585

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144013

57
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167
all docs

167
docs citations

167
times ranked

2453
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Improving I/O Performance for Exascale Applications Through Online Data Layout Reorganization. IEEE Transactions on Parallel and Distributed Systems, 2022, 33, 878-890. | 5.6 | 10 |
| 2 | PICSTAR-QED: a Monte Carlo module to simulate strong-field quantum electrodynamics in particle-in-cell codes for exascale architectures. New Journal of Physics, 2022, 24, 025009. | 2.9 | 6 |
| 3 | HiPACE++: A portable, 3D quasi-static particle-in-cell code. Computer Physics Communications, 2022, 278, 108421. | 7.5 | 8 |
| 4 | A hybrid nodal-staggered pseudo-spectral electromagnetic particle-in-cell method with finite-order centering. Computer Physics Communications, 2022, 279, 108457. | 7.5 | 1 |
| 5 | Modeling of a chain of three plasma accelerator stages with the WarpX electromagnetic PIC code on GPUs. Physics of Plasmas, 2021, 28, . | 1.9 | 23 |
| 6 | 2020 roadmap on plasma accelerators. New Journal of Physics, 2021, 23, 031101. | 2.9 | 89 |
| 7 | In-situ assessment of device-side compute work for dynamic load balancing in a GPU-accelerated PIC code. , 2021, , . | | 2 |
| 8 | Porting WarpX to GPU-accelerated platforms. Parallel Computing, 2021, 108, 102833. | 2.1 | 25 |
| 9 | Simulations of future particle accelerators: issues and mitigations. Journal of Instrumentation, 2021, 16, T10002. | 1.2 | 4 |
| 10 | Modeling of advanced accelerator concepts. Journal of Instrumentation, 2021, 16, T10003. | 1.2 | 3 |
| 11 | Overcoming timestep limitations in boosted-frame particle-in-cell simulations of plasma-based acceleration. Physical Review E, 2021, 104, 055311. | 2.1 | 2 |
| 12 | Reduced bandwidth Compton photons from a laser-plasma accelerator using tailored plasma channels. Physics of Plasmas, 2021, 28, 123104. | 1.9 | 1 |
| 13 | Modeling of emittance growth due to Coulomb collisions in plasma-based accelerators. Physics of Plasmas, 2020, 27, 113105. | 1.9 | 9 |
| 14 | Exascale applications: skin in the game. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190056. | 3.4 | 53 |
| 15 | Toward the modeling of chains of plasma accelerator stages with WarpX. Journal of Physics: Conference Series, 2020, 1596, 012059. | 0.4 | 4 |
| 16 | Advanced modeling of field enhanced thermionic emission. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2020, 38, . | 1.2 | 5 |
| 17 | Scalable spectral solver in Galilean coordinates for eliminating the numerical Cherenkov instability in particle-in-cell simulations of streaming plasmas. Physical Review E, 2020, 102, 013202. | 2.1 | 11 |
| 18 | Target normal sheath acceleration with a large laser focal diameter. Physics of Plasmas, 2020, 27, . | 1.9 | 1 |

| # | ARTICLE | IF | CITATIONS |
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| 19 | Acceleration of high charge ion beams with achromatic divergence by petawatt laser pulses. Physical Review Accelerators and Beams, 2020, 23, . | 1.6 | 21 |
| 20 | Particle-in-cell simulation of plasma-based amplification using a moving window. Physical Review Research, 2020, 2, . | 3.6 | 6 |
| 21 | A generalized massively parallel ultra-high order FFT-based Maxwell solver. Computer Physics Communications, 2019, 244, 25-34. | 7.5 | 9 |
| 22 | Ion acceleration in laser generated megatesla magnetic vortex. Physics of Plasmas, 2019, 26, . | 1.9 | 32 |
| 23 | Convergence in nonlinear laser wakefield accelerators modeling in a Lorentz-boosted frame. Computer Physics Communications, 2019, 238, 102-110. | 7.5 | 2 |
| 24 | Identification of Coupling Mechanisms between Ultraintense Laser Light and Dense Plasmas. Physical Review X, 2019, 9, . | 8.9 | 53 |
| 25 | Investigation of light ion fusion reactions with plasma discharges. Journal of Applied Physics, 2019, 126, . | 2.5 | 7 |
| 26 | Laser and electron deflection from transverse asymmetries in laser-plasma accelerators. Physical Review E, 2019, 100, 063208. | 2.1 | 10 |
| 27 | Two-step perfectly matched layer for arbitrary-order pseudo-spectral analytical time-domain methods. Computer Physics Communications, 2019, 235, 102-110. | 7.5 | 9 |
| 28 | Emittance growth due to misalignment in multistage laser-plasma accelerators. Physical Review Accelerators and Beams, 2019, 22, . | 1.6 | 11 |
| 29 | Pulse front tilt steering in laser plasma accelerators. Physical Review Accelerators and Beams, 2019, 22, . | 1.6 | 9 |
| 30 | Electron reflection in thermionic energy converters. Applied Physics Letters, 2018, 112, . | 3.3 | 15 |
| 31 | Investigation of the dynamics of ionization induced injected electrons under the influence of beam loading effects. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 909, 428-432. | 1.6 | 4 |
| 32 | Warp-X: A new exascale computing platform for beam-plasma simulations. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 909, 476-479. | 1.6 | 68 |
| 33 | Ultrahigh-order Maxwell solver with extreme scalability for electromagnetic PIC simulations of plasmas. Computer Physics Communications, 2018, 228, 22-29. | 7.5 | 25 |
| 34 | Toward Plasma Wakefield Simulations at Exascale. , 2018, , . | | 2 |
| 35 | Optimization of laser-plasma injector via beam loading effects using ionization-induced injection. Physical Review Accelerators and Beams, 2018, 21, . | 1.6 | 15 |
| 36 | Beam breakup studies in a hollow plasma channel. AIP Conference Proceedings, 2017, , . | 0.4 | 2 |

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| 37 | Accurate modeling of plasma acceleration with arbitrary order pseudo-spectral particle-in-cell methods. <i>Physics of Plasmas</i> , 2017, 24, 033115. | 1.9 | 29 |
| 38 | Spatial Properties of High-Order Harmonic Beams from Plasma Mirrors: A Ptychographic Study. <i>Physical Review Letters</i> , 2017, 119, 155001. | 7.8 | 30 |
| 39 | Narrow bandwidth Thomson photon source and diagnostic development using laser-plasma accelerators. <i>AIP Conference Proceedings</i> , 2017, , . | 0.4 | 0 |
| 40 | Saturation of the Hosing Instability in Quasilinear Plasma Accelerators. <i>Physical Review Letters</i> , 2017, 119, 244801. | 7.8 | 24 |
| 41 | An efficient and portable SIMD algorithm for charge/current deposition in Particle-In-Cell codes. <i>Computer Physics Communications</i> , 2017, 210, 145-154. | 7.5 | 31 |
| 42 | PIC Codes on the Road to Exascale Architectures. , 2017, , 375-408. | | 3 |
| 43 | Beam emittance conservation in multiple consecutive laser-plasma accelerator stages. <i>AIP Conference Proceedings</i> , 2016, , . | 0.4 | 0 |
| 44 | Elimination of numerical Cherenkov instability in flowing-plasma particle-in-cell simulations by using Galilean coordinates. <i>Physical Review E</i> , 2016, 94, 053305. | 2.1 | 28 |
| 45 | Stable discrete representation of relativistically drifting plasmas. <i>Physics of Plasmas</i> , 2016, 23, 100704. | 1.9 | 23 |
| 46 | Simulations for Plasma and Laser Acceleration. <i>Reviews of Accelerator Science and Technology</i> , 2016, 09, 165-186. | 0.5 | 6 |
| 47 | Evaluating and Optimizing the NERSC Workload on Knights Landing. , 2016, , . | | 20 |
| 48 | Investigation of ionization-induced electron injection in a wakefield driven by laser inside a gas cell. <i>Physics of Plasmas</i> , 2016, 23, 023110. | 1.9 | 16 |
| 49 | WarpIV: In Situ Visualization and Analysis of Ion Accelerator Simulations. <i>IEEE Computer Graphics and Applications</i> , 2016, 36, 22-35. | 1.2 | 5 |
| 50 | Compact disposal of high-energy electron beams using passive or laser-driven plasma decelerating stage. <i>AIP Conference Proceedings</i> , 2016, , . | 0.4 | 0 |
| 51 | Beam dynamics simulations of optically-enhanced field emission from structured cathodes. <i>AIP Conference Proceedings</i> , 2016, , . | 0.4 | 1 |
| 52 | Ultra-low emittance electron beams from two-color laser-ionization injection. <i>AIP Conference Proceedings</i> , 2016, , . | 0.4 | 6 |
| 53 | Laser technology for Thomson MeV photon sources based on laser-plasma accelerators. <i>AIP Conference Proceedings</i> , 2016, , . | 0.4 | 1 |
| 54 | Efficiency of the perfectly matched layer with high-order finite difference and pseudo-spectral Maxwell solvers. <i>AIP Conference Proceedings</i> , 2016, , . | 0.4 | 0 |

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| 55 | Summary report of working group 2: Computations for accelerator physics. AIP Conference Proceedings, 2016, , . | 0.4 | 2 |
| 56 | Modeling laser-driven electron acceleration using WARP with Fourier decomposition. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 829, 358-362. | 1.6 | 4 |
| 57 | A spectral, quasi-cylindrical and dispersion-free Particle-In-Cell algorithm. Computer Physics Communications, 2016, 203, 66-82. | 7.5 | 175 |
| 58 | Summary of working group 6: Theory and simulations. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 829, 348-349. | 1.6 | 0 |
| 59 | Recent advances in high-performance modeling of plasma-based acceleration using the full PIC method. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 829, 353-357. | 1.6 | 7 |
| 60 | Detailed analysis of the effects of stencil spatial variations with arbitrary high-order finite-difference Maxwell solver. Computer Physics Communications, 2016, 200, 147-167. | 7.5 | 36 |
| 61 | Applying the Roofline Performance Model to the Intel Xeon Phi Knights Landing Processor. Lecture Notes in Computer Science, 2016, , 339-353. | 1.3 | 42 |
| 62 | Dynamics of electron injection and acceleration driven by laser wakefield in tailored density profiles. Physical Review Accelerators and Beams, 2016, 19, . | 1.6 | 9 |
| 63 | Laser plasma acceleration using the PW-class BELLA laser. , 2016, , . | | 0 |
| 64 | Passive and active plasma deceleration for the compact disposal of electron beams. Physics of Plasmas, 2015, 22, . | 1.9 | 14 |
| 65 | Generation and pointing stabilization of multi-GeV electron beams from a laser plasma accelerator | 1.9 | 36 |
| 66 | Emittance control of electron and positron beams in laser plasma accelerators. Proceedings of SPIE, 2015, , . | 0.8 | 1 |
| 67 | Multi-GeV experiments with the Petawatt class BELLA laser. , 2015, , . | | 0 |
| 68 | Compact quasi-monoenergetic photon sources from laser-plasma accelerators for nuclear detection and characterization. Nuclear Instruments & Methods in Physics Research B, 2015, 350, 116-121. | 1.4 | 56 |
| 69 | Efficiency of the Perfectly Matched Layer with high-order finite difference and pseudo-spectral Maxwell solvers. Computer Physics Communications, 2015, 194, 1-9. | 7.5 | 7 |
| 70 | Ultra-low emittance beam generation using two-color ionization injection in laser-plasma accelerators. , 2015, , . | | 2 |
| 71 | Improved numerical Cherenkov instability suppression in the generalized PSTD PIC algorithm. Computer Physics Communications, 2015, 196, 221-225. | 7.5 | 23 |
| 72 | Staged, Guided Laser-Plasma Accelerators Towards Thomson Photon Sources and High Energy Physics. , 2015, , . | | 1 |

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| 73 | Multi-GeV Electron Beams at the BErkeley Lab Laser Accelerator. , 2015, , . | | 0 |
| 74 | Suppressing numerical cherenkov stabilities in FDTD PIC codes. , 2014, , . | | 0 |
| 75 | Laser plasma acceleration using the PW-class BELLA laser. , 2014, , . | | 0 |
| 76 | Quasi-monoenergetic femtosecond photon sources from Thomson Scattering using laser plasma accelerators and plasma channels. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 234013. | 1.5 | 66 |
| 77 | Thermal emittance from ionization-induced trapping in plasma accelerators. Physical Review Special Topics: Accelerators and Beams, 2014, 17, . | 1.8 | 37 |
| 78 | Multi-GeV Electron Beams from Capillary-Discharge-Guided Subpetawatt Laser Pulses in the Self-Trapping Regime. Physical Review Letters, 2014, 113, 245002. | 7.8 | 767 |
| 79 | Dynamics of ionization-induced electron injection in the high density regime of laser wakefield acceleration. Physics of Plasmas, 2014, 21, . | 1.9 | 18 |
| 80 | Alternate operating scenarios for NDCX-II. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 733, 147-152. | 1.6 | 1 |
| 81 | Numerical Stability Improvements for the Pseudospectral EM PIC Algorithm. IEEE Transactions on Plasma Science, 2014, 42, 1339-1344. | 1.3 | 15 |
| 82 | Computational Methods in the Warp Code Framework for Kinetic Simulations of Particle Beams and Plasmas. IEEE Transactions on Plasma Science, 2014, 42, 1321-1334. | 1.3 | 46 |
| 83 | Modeling of relativistic plasmas with the Particle-In-Cell method. Comptes Rendus - Mecanique, 2014, 342, 610-618. | 2.1 | 11 |
| 84 | Two-Color Laser-Ionization Injection. Physical Review Letters, 2014, 112, 125001. | 7.8 | 96 |
| 85 | Numerical stability analysis of the pseudo-spectral analytical time-domain PIC algorithm. Journal of Computational Physics, 2014, 258, 689-704. | 3.8 | 39 |
| 86 | Suppressing the numerical Cherenkov instability in FDTD PIC codes. Journal of Computational Physics, 2014, 267, 1-6. | 3.8 | 50 |
| 87 | A domain decomposition method for pseudo-spectral electromagnetic simulations of plasmas. Journal of Computational Physics, 2013, 243, 260-268. | 3.8 | 89 |
| 88 | Numerical stability of relativistic beam multidimensional PIC simulations employing the Esirkepov algorithm. Journal of Computational Physics, 2013, 248, 33-46. | 3.8 | 60 |
| 89 | Low transverse emittance electron bunches from two-color laser-ionization injection. , 2013, , . | | 2 |
| 90 | PPPS-2013: Topic 1.2: Numerical stability of the pseudospectral EM PIC algorithm. , 2013, , . | | 1 |

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| 91 | Low noise particle-in-cell simulations of 10 GeV laser-plasma accelerator stages. , 2013, , . | | 0 |
| 92 | Development and testing of a lithium ion source and injector. Physical Review Special Topics: Accelerators and Beams, 2012, 15, . | 1.8 | 5 |
| 93 | Novel methods in the Particle-In-Cell accelerator Code-Framework Warp. Computational Science & Discovery, 2012, 5, 014019. | 1.5 | 83 |
| 94 | Effects of errors in velocity tilt on maximum longitudinal compression during neutralized drift compression of intense beam pulses: I. general description. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 678, 48-63. | 1.6 | 7 |
| 95 | Modeling of 10 GeV-1 TeV laser-plasma accelerators using Lorentz boosted simulations. Physics of Plasmas, 2011, 18, . | 1.9 | 41 |
| 96 | Numerical methods for instability mitigation in the modeling of laser wakefield accelerators in a Lorentz-boosted frame. Journal of Computational Physics, 2011, 230, 5908-5929. | 3.8 | 83 |
| 97 | Effects of hyperbolic rotation in Minkowski space on the modeling of plasma accelerators in a Lorentz boosted frame. Physics of Plasmas, 2011, 18, 030701. | 1.9 | 22 |
| 98 | The BErkeley Lab Laser Accelerator (BELLA): A 10 GeV Laser Plasma Accelerator. , 2010, , . | | 41 |
| 99 | Modeling Laser Wakefield Accelerators in a Lorentz Boosted Frame. , 2010, , . | | 6 |
| 100 | Beam dynamics of the Neutralized Drift Compression Experiment-II, a novel pulse-compressing ion accelerator. Physics of Plasmas, 2010, 17, 056704. | 1.9 | 44 |
| 101 | Use of the Lorentz-Boosted Frame Transformation to Simulate Free-Electron Laser Amplifier Physics. , 2009, , . | | 3 |
| 102 | An implicit "drift-Lorentz" mover for plasma and beam simulations. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 606, 53-55. | 1.6 | 2 |
| 103 | Recent results and future challenges for large scale particle-in-cell simulations of plasma-based accelerator concepts. Journal of Physics: Conference Series, 2009, 180, 012005. | 0.4 | 6 |
| 104 | New Developments in the Simulation of Advanced Accelerator Concepts. , 2009, , . | | 5 |
| 105 | Simulating relativistic beam and plasma systems using an optimal boosted frame. Journal of Physics: Conference Series, 2009, 180, 012006. | 0.4 | 8 |
| 106 | Simulation of beams or plasmas crossing at relativistic velocity. Physics of Plasmas, 2008, 15, . | 1.9 | 166 |
| 107 | Heavy ion fusion science research for high energy density physics and fusion applications. Journal of Physics: Conference Series, 2008, 112, 032029. | 0.4 | 4 |
| 108 | Computational studies and optimization of wakefield accelerators. Journal of Physics: Conference Series, 2008, 125, 012002. | 0.4 | 13 |

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| 109 | Electron cloud cyclotron resonances in the presence of a short-bunch-length relativistic beam. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2008, 11, . | 1.8 | 4 |
| 110 | Measurement and simulation of source-generated halos in the University Of Maryland Electron Ring (UMER). , 2007, , . | | 3 |
| 111 | Heavy-ion-fusion-science: summary of US progress. <i>Nuclear Fusion</i> , 2007, 47, 721-727. | 3.5 | 15 |
| 112 | Self-consistent 3D modeling of electron cloud dynamics and beam response. , 2007, , . | | 0 |
| 113 | Absolute measurement of electron cloud density. , 2007, , . | | 0 |
| 114 | Modeling incoherent electron cloud effects. , 2007, , . | | 1 |
| 115 | Modelling of E-cloud build-up in grooved vacuum chambers using posinst. , 2007, , . | | 0 |
| 116 | Simulating electron effects in heavy-ion accelerators with solenoid focusing. , 2007, , . | | 0 |
| 117 | Simulation studies of non-neutral plasma equilibria in an electrostatic trap with a magnetic mirror. <i>Physics of Plasmas</i> , 2007, 14, 052107. | 1.9 | 20 |
| 118 | Simulations of plasma confinement in an antihydrogen trap. <i>Physics of Plasmas</i> , 2007, 14, 102111. | 1.9 | 15 |
| 119 | Particle-in-cell calculations of the electron cloud in the ILC positron damping ring wigglers. , 2007, , . | | 1 |
| 120 | Quantitative experiments with electrons in a positively charged beam. <i>Physics of Plasmas</i> , 2007, 14, 056701. | 1.9 | 4 |
| 121 | Simulations of electron cloud effects on the beam dynamics for the FNAL main injector upgrade. , 2007, , . | | 0 |
| 122 | Noninvariance of Space- and Time-Scale Ranges under a Lorentz Transformation and the Implications for the Study of Relativistic Interactions. <i>Physical Review Letters</i> , 2007, 98, 130405. | 7.8 | 125 |
| 123 | Large-timestep mover for particle simulations of arbitrarily magnetized species. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 577, 52-57. | 1.6 | 15 |
| 124 | Recent US advances in ion-beam-driven high energy density physics and heavy ion fusion. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 577, 1-7. | 1.6 | 52 |
| 125 | Quantitative electron and gas cloud experiments. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 577, 45-51. | 1.6 | 2 |
| 126 | A method for obtaining three-dimensional computational equilibrium of non-neutral plasmas using WARP. <i>Journal of Computational Physics</i> , 2007, 225, 1736-1752. | 3.8 | 12 |

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| 127 | Self-consistent simulations of heavy-ion beams interacting with electron-clouds. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 577, 65-69. | 1.6 | 9 |
| 128 | Simulating electron clouds in high-current ion accelerators with solenoid focusing. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 577, 146-149. | 1.6 | 6 |
| 129 | Measurement and simulation of the time-dependent behavior of the UMER source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 577, 157-160. | 1.6 | 4 |
| 130 | Electron cloud measurements in heavy-ion driver for HEDP and inertial fusion energy. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 980-985. | 1.4 | 0 |
| 131 | US heavy ion beam research for high energy density physics applications and fusion. European Physical Journal Special Topics, 2006, 133, 731-741. | 0.2 | 7 |
| 132 | Absolute Measurement of Electron-Cloud Density in a Positively Charged Particle Beam. Physical Review Letters, 2006, 97, 054801. | 7.8 | 18 |
| 133 | Modeling ion-induced electrons in the High Current Experiment. Physics of Plasmas, 2006, 13, 056702. | 1.9 | 10 |
| 134 | Beam energy scaling of ion-induced electron yield from K ⁺ impact on stainless steel. Physical Review Special Topics: Accelerators and Beams, 2006, 9, . | 1.8 | 12 |
| 135 | Dynamics of neutralizing electrons during the focusing of intense heavy ions beams inside a HIF reactor chamber. European Physical Journal Special Topics, 2006, 133, 753-755. | 0.2 | 1 |
| 136 | Energy loss, range, and electron yield comparisons of the CRANGE ion-atom material interaction code. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 544, 502-505. | 1.6 | 3 |
| 137 | Ion source and injector experiments at the HIF/VNL. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 544, 134-141. | 1.6 | 9 |
| 138 | Simulating electron cloud effects in heavy-ion beams. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 544, 210-215. | 1.6 | 5 |
| 139 | Application of adaptive mesh refinement to PIC simulations in heavy ion fusion. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 544, 347-352. | 1.6 | 3 |
| 140 | Production of a high brightness beam from a large surface source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 544, 430-435. | 1.6 | 5 |
| 141 | Measurement and simulation of the UMER beam in the source region. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 544, 441-446. | 1.6 | 8 |
| 142 | Overview of US heavy-ion fusion progress and plans. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 544, 1-8. | 1.6 | 16 |
| 143 | Simulating electron clouds in heavy-ion accelerators. Physics of Plasmas, 2005, 12, 056708. | 1.9 | 23 |
| 144 | Overview of US heavy ion fusion research. Nuclear Fusion, 2005, 45, 131-137. | 3.5 | 27 |

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| 145 | Electron-cloud simulation and theory for high-current heavy-ion beams. Physical Review Special Topics: Accelerators and Beams, 2004, 7, . | 1.8 | 15 |
| 146 | Simulation of heavy ion induced electron yield at grazing incidence. Physical Review Special Topics: Accelerators and Beams, 2004, 7, . | 1.8 | 4 |
| 147 | Vlasov simulations of beams with a moving grid. Computer Physics Communications, 2004, 164, 390-395. | 7.5 | 28 |
| 148 | A node-centered local refinement algorithm for Poisson's equation in complex geometries. Journal of Computational Physics, 2004, 201, 34-60. | 3.8 | 39 |
| 149 | Asymmetric PML for the absorption of waves. Application to mesh refinement in electromagnetic Particle-In-Cell plasma simulations. Computer Physics Communications, 2004, 164, 171-177. | 7.5 | 23 |
| 150 | Application of adaptive mesh refinement to particle-in-cell simulations of plasmas and beams. Physics of Plasmas, 2004, 11, 2928-2934. | 1.9 | 58 |
| 151 | Implementations of mesh refinement schemes for Particle-In-Cell plasma simulations. Computer Physics Communications, 2004, 164, 297-305. | 7.5 | 27 |
| 152 | Numerical simulation of the generation of secondary electrons in the High Current Experiment. Physical Review Special Topics: Accelerators and Beams, 2003, 6, . | 1.8 | 20 |
| 153 | Progress in heavy ion fusion research. Physics of Plasmas, 2003, 10, 2064-2070. | 1.9 | 17 |
| 154 | Overview of theory and modeling in the heavy ion fusion virtual national laboratory. Laser and Particle Beams, 2002, 20, 377-384. | 1.0 | 14 |
| 155 | Asymmetric Perfectly Matched Layer for the Absorption of Waves. Journal of Computational Physics, 2002, 183, 367-399. | 3.8 | 15 |
| 156 | Mesh refinement for particle-in-cell plasma simulations: Applications to and benefits for heavy ion fusion. Laser and Particle Beams, 2002, 20, 569-575. | 1.0 | 41 |
| 157 | An Extended FDTD Scheme for the Wave Equation: Application to Multiscale Electromagnetic Simulation. Journal of Computational Physics, 2001, 167, 72-98. | 3.8 | 9 |
| 158 | A New Absorbing Layer Boundary Condition for the Wave Equation. Journal of Computational Physics, 2000, 165, 511-521. | 3.8 | 17 |
| 159 | A three-dimensional electromagnetic particle-in-cell code to simulate heavy ion beam propagation in the reaction chamber. Fusion Engineering and Design, 1996, 32-33, 467-476. | 1.9 | 10 |
| 160 | A Cross-Platform Numerical Model of Ion-Wall Collisions. , 0, , . | | 0 |
| 161 | Beam Energy Scaling of Ion-Induced Electron Yield From K+ Ions Impact on Stainless Steel Surfaces. , 0, , . | | 0 |
| 162 | Initial Self-Consistent 3D Electron-Cloud Simulations of the LHC Beam with the Codewarp+Posinst. , 0, , . | | 1 |

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| 163 | Computer Simulaton of the UMER Gridded Gun. , 0, , . | | 1 |
| 164 | Experiments Studying Desorbed Gas and Electron Clouds in Ion Accelerators. , 0, , . | | 1 |
| 165 | Filling in the Roadmap for Self-Consistent Electron Cloud and Gas Modeling. , 0, , . | | 7 |