

# Seiji Zenitani

## List of Publications by Year in descending order

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Version: 2024-02-01

56  
papers

2,124  
citations

236925

25  
h-index

223800

46  
g-index

63  
all docs

63  
docs citations

63  
times ranked

1306  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | The Generation of Nonthermal Particles in the Relativistic Magnetic Reconnection of Pair Plasmas. <i>Astrophysical Journal</i> , 2001, 562, L63-L66.                             | 4.5 | 262       |
| 2  | New Measure of the Dissipation Region in Collisionless Magnetic Reconnection. <i>Physical Review Letters</i> , 2011, 106, 195003.  | 7.8 | 205       |
| 3  | Particle Acceleration and Magnetic Dissipation in Relativistic Current Sheet of Pair Plasmas. <i>Astrophysical Journal</i> , 2007, 670, 702-726.                                 | 4.5 | 176       |
| 4  | The Diffusion Region in Collisionless Magnetic Reconnection. <i>Space Science Reviews</i> , 2011, 160, 3-23.   | 8.1 | 124       |
| 5  | The Role of the Guide Field in Relativistic Pair Plasma Reconnection. <i>Astrophysical Journal</i> , 2008, 677, 530-544.   | 4.5 | 112       |
| 6  | TWO-FLUID MAGNETOHYDRODYNAMIC SIMULATIONS OF RELATIVISTIC MAGNETIC RECONNECTION. <i>Astrophysical Journal</i> , 2009, 696, 1385-1401.  | 4.5 | 74        |
| 7  | Three-dimensional structure of magnetic reconnection in the magnetotail from Geotail observations. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 1667-1678. | 2.4 | 72        |
| 8  | Aspects of collisionless magnetic reconnection in asymmetric systems. <i>Physics of Plasmas</i> , 2013, 20, .  | 1.9 | 56        |
| 9  | Three-Dimensional Evolution of a Relativistic Current Sheet: Triggering of Magnetic Reconnection by the Guide Field. <i>Physical Review Letters</i> , 2005, 95, 095001.          | 7.8 | 54        |
| 10 | Theory and Modeling for the Magnetospheric Multiscale Mission. <i>Space Science Reviews</i> , 2016, 199, 577-630.  | 8.1 | 53        |
| 11 | Relativistic Particle Acceleration in a Folded Current Sheet. <i>Astrophysical Journal</i> , 2005, 618, L111-L114.   | 4.5 | 52        |
| 12 | Particle-in-cell simulation of collisionless reconnection with open outflow boundaries. <i>Physics of Plasmas</i> , 2008, 15, .  | 1.9 | 51        |
| 13 | RESISTIVE MAGNETOHYDRODYNAMIC SIMULATIONS OF RELATIVISTIC MAGNETIC RECONNECTION. <i>Astrophysical Journal Letters</i> , 2010, 716, L214-L218.                                    | 8.3 | 50        |
| 14 | The structure of the electron outflow jet in collisionless magnetic reconnection. <i>Physics of Plasmas</i> , 2008, 15, .  | 1.9 | 48        |
| 15 | Dissipation in relativistic pair-plasma reconnection. <i>Physics of Plasmas</i> , 2007, 14, .  | 1.9 | 43        |
| 16 | The inner structure of collisionless magnetic reconnection: The electron-frame dissipation measure and Hall fields. <i>Physics of Plasmas</i> , 2011, 18, .                      | 1.9 | 42        |
| 17 | On the Boris solver in particle-in-cell simulation. <i>Physics of Plasmas</i> , 2018, 25, .  | 1.9 | 41        |
| 18 | Magnetohydrodynamic structure of a plasmoid in fast reconnection in low-beta plasmas. <i>Physics of Plasmas</i> , 2011, 18, .  | 1.9 | 39        |

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|----|---|-----|-----------|
| 19 | Mass and Energy Transfer Across the Earth's Magnetopause Caused by Vortex-Induced Reconnection. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 11,505.                        | 2.4 | 35        |
| 20 | Particle dynamics in the electron current layer in collisionless magnetic reconnection. <i>Physics of Plasmas</i> , 2016, 23, .   | 1.9 | 33        |
| 21 | Kinetic aspects of the ion current layer in a reconnection outflow exhaust. <i>Physics of Plasmas</i> , 2013, 20, .   | 1.9 | 32        |
| 22 | Evidence for the dissipation region in magnetotail reconnection. <i>Geophysical Research Letters</i> , 2012, 39, .  | 4.0 | 31        |
| 23 | The role of the Weibel instability at the reconnection jet front in relativistic pair plasma reconnection. <i>Physics of Plasmas</i> , 2008, 15, .  | 1.9 | 28        |
| 24 | Loading relativistic Maxwell distributions in particle simulations. <i>Physics of Plasmas</i> , 2015, 22, .   | 1.9 | 28        |
| 25 | Decay of mesoscale flux transfer events during quasi-continuous spatially extended reconnection at the magnetopause. <i>Geophysical Research Letters</i> , 2016, 43, 4755-4762.                   | 4.0 | 28        |
| 26 | Ion acceleration processes in magnetic reconnection: Geotail observations in the magnetotail. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 1766-1783.                       | 2.4 | 25        |
| 27 | Self-Regulation of the Reconnecting Current Layer in Relativistic Pair Plasma Reconnection. <i>Astrophysical Journal</i> , 2008, 684, 1477-1485.  | 4.5 | 24        |
| 28 | RELATIVISTIC TWO-FLUID SIMULATIONS OF GUIDE FIELD MAGNETIC RECONNECTION. <i>Astrophysical Journal</i> , 2009, 705, 907-913.   | 4.5 | 24        |
| 29 | A simple, analytical model of collisionless magnetic reconnection in a pair plasma. <i>Physics of Plasmas</i> , 2009, 16, .   | 1.9 | 23        |
| 30 | Comparison between hybrid and fully kinetic models of asymmetric magnetic reconnection: Coplanar and guide field configurations. <i>Physics of Plasmas</i> , 2013, 20, .                          | 1.9 | 23        |
| 31 | Ion and electron dynamics in the ion-electron decoupling region of magnetic reconnection with Geotail observations. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 7703-7713. | 2.4 | 23        |
| 32 | Magnetohydrodynamic simulation code CANS+: Assessments and applications. <i>Publication of the Astronomical Society of Japan</i> , 2019, 71, .  | 2.5 | 23        |
| 33 | Explosive reconnection of double tearing modes in relativistic plasmas: application to the Crab flares. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2013, 436, L20-L24.   | 3.3 | 21        |
| 34 | Electron dynamics surrounding the X line in asymmetric magnetic reconnection. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 7396-7413.                                       | 2.4 | 20        |
| 35 | Magnetohydrodynamic structure of a plasmoid in fast reconnection in low-beta plasmas: Shock-shock interactions. <i>Physics of Plasmas</i> , 2015, 22, .   | 1.9 | 18        |
| 36 | The dawn-dusk length of the X line in the near-Earth magnetotail: Geotail survey in 1994-2014. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 8762-8773.                      | 2.4 | 16        |

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|----|--|-----|-----------|
| 37 | Particle-in-cell simulation of collisionless driven reconnection with open boundaries. <i>Physics of Plasmas</i> , 2010, 17, .   | 1.9 | 14        |
| 38 | Magnetic reconnection in a compressible MHD plasma. <i>Physics of Plasmas</i> , 2011, 18, .  | 1.9 | 12        |
| 39 | Plasmoid-dominated Turbulent Reconnection in a Low- $\hat{\nu}^2$ Plasma. <i>Astrophysical Journal Letters</i> , 2020, 894, L7.  | 8.3 | 11        |
| 40 | SCALING OF THE ANOMALOUS BOOST IN RELATIVISTIC JET BOUNDARY LAYER. <i>Astrophysical Journal</i> , 2010, 712, 951-956.  | 4.5 | 10        |
| 41 | Reconnection in compressible plasmas: Extended conversion region. <i>Physics of Plasmas</i> , 2011, 18, 111202.  | 1.9 | 9         |
| 42 | Thermodynamic Properties of Mirror Structures in the Magnetosheath: MMS Observations and Double-polytropic MHD Simulations. <i>Astrophysical Journal</i> , 2019, 885, 22.                                | 4.5 | 8         |
| 43 | Explosive reconnection of the double tearing mode in relativistic plasmas with application to the Crab nebula. <i>Plasma Physics and Controlled Fusion</i> , 2015, 57, 014034.                           | 2.1 | 7         |
| 44 | Dissipation in relativistic pair-plasma reconnection: revisited. <i>Plasma Physics and Controlled Fusion</i> , 2018, 60, 014028.   | 2.1 | 7         |
| 45 | Multiple Boris integrators for particle-in-cell simulation. <i>Computer Physics Communications</i> , 2020, 247, 106954.  | 7.5 | 7         |
| 46 | Particle-in-cell simulation of collisionless undriven reconnection with open boundaries. <i>Physics of Plasmas</i> , 2012, 19, 042901.   | 1.9 | 6         |
| 47 | On the effect of parallel shear flow on the plasmoid instability. <i>Physics of Plasmas</i> , 2018, 25, 102117.  | 1.9 | 6         |
| 48 | Energy Conversion and Inventory of a Prototypical Magnetic Reconnection layer. <i>Astrophysics and Space Science Library</i> , 2016, , 143-179.  | 2.7 | 5         |
| 49 | Some remarks on the diffusion regions in magnetic reconnection. <i>Physics of Plasmas</i> , 2014, 21, 034503.  | 1.9 | 4         |
| 50 | Numerical MHD study for plasmoid instability in uniform resistivity. <i>Physics of Plasmas</i> , 2017, 24, .   | 1.9 | 3         |
| 51 | Two-dimensional Reconstruction of a Time-dependent Mirror Structure from Double-polytropic MHD Simulation. <i>Earth and Space Science</i> , 2021, 8, e2020EA001449.                                      | 2.6 | 2         |
| 52 | Fluid and Magnetofluid Modeling of Relativistic Magnetic Reconnection. , 2011, , .   |     | 0         |
| 53 | Thermodynamics of Dipolarization Fronts of Magnetic Reconnection in Anisotropic Plasma: MMS Observations and Resistive Double-polytropic MHD Simulations. <i>Astrophysical Journal</i> , 2020, 890, 114. | 4.5 | 0         |
| 54 | The Diffusion Region in Collisionless Magnetic Reconnection. , 2011, , 3-23.   |     | 0         |

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|----|---|-----|-----------|
| 55 | Theory and Modeling for the Magnetospheric Multiscale Mission. , 2017, , 575-628. |     | 0         |
| 56 | Relativistic Maxwellian mixture model. Physics of Plasmas, 2021, 28, 122106.      | 1.9 | 0         |