

Ian J Cohen

List of Publications by Year in descending order

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85
papers

2,452
citations

304743

22
h-index

214800

47
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95
all docs

95
docs citations

95
times ranked

2150
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Small Satellite Mission Concepts for Space Weather Research and as Pathfinders for Operations. <i>Space Weather</i> , 2022, 20, e2020SW002554. | 3.7 | 6 |
| 2 | Energetic Ions Downtail of the Reconnection Site. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, . | 2.4 | 0 |
| 3 | The Case for a New Frontiersâ€œClass Uranus Orbiter: System Science at an Underexplored and Unique World with a Mid-scale Mission. <i>Planetary Science Journal</i> , 2022, 3, 58. | 3.6 | 12 |
| 4 | A New Three-Dimensional Empirical Reconstruction Model Using a Stochastic Optimization Method. <i>Frontiers in Astronomy and Space Sciences</i> , 2022, 9, . | 2.8 | 1 |
| 5 | Three-dimensional network of filamentary currents and super-thermal electrons during magnetotail magnetic reconnection. <i>Nature Communications</i> , 2022, 13, . | 12.8 | 11 |
| 6 | Characteristics of Energetic Electrons Near Active Magnetotail Reconnection Sites: Statistical Evidence for Local Energization. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL090087. | 4.0 | 8 |
| 7 | Characteristics of Energetic Electrons Near Active Magnetotail Reconnection Sites: Tracers of a Complex Magnetic Topology and Evidence of Localized Acceleration. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL090089. | 4.0 | 10 |
| 8 | Evidence for Nonadiabatic Oxygen Energization in the Nearâ€œEarth Magnetotail From MMS. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091697. | 4.0 | 5 |
| 9 | In Situ Evidence of Ion Acceleration between Consecutive Reconnection Jet Fronts. <i>Astrophysical Journal</i> , 2021, 908, 73. | 4.5 | 3 |
| 10 | New Frontiers-class Uranus Orbiter: Exploring the feasibility of achieving multidisciplinary science with a mid-scale mission. , 2021, 53, . | | 0 |
| 11 | Collaborative Actions to Enable Richer and More Complex Planetary Science Mission Data. , 2021, 53, . | | 0 |
| 12 | MMS Observations of the Multiscale Wave Structures and Parallel Electron Heating in the Vicinity of the Southern Exterior Cusp. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2019JA027698. | 2.4 | 15 |
| 13 | The Science Case for Spacecraft Exploration of the Uranian Satellites. , 2021, 53, . | | 0 |
| 14 | Direct Multipoint Observations Capturing the Reformation of a Supercritical Fast Magnetosonic Shock. <i>Astrophysical Journal Letters</i> , 2021, 911, L31. | 8.3 | 6 |
| 15 | Magnetospheric Multiscale Observations of the Source Region of Energetic Electron Microinjections Along the Dusk-side, Highâ€œLatitude Magnetopause Boundary Layer. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL092466. | 4.0 | 9 |
| 16 | A Multiâ€œInstrument Study of a Dipolarization Event in the Inner Magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029294. | 2.4 | 0 |
| 17 | Investigating the Link Between Outer Radiation Belt Losses and Energetic Electron Escape at the Magnetopause: A Case Study Using Multiâ€œMission Observations and Simulations. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029261. | 2.4 | 2 |
| 18 | The Science Case for Spacecraft Exploration of the Uranian Satellites: Candidate Ocean Worlds in an Ice Giant System. <i>Planetary Science Journal</i> , 2021, 2, 120. | 3.6 | 19 |

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|----|---|-----|-----------|
| 19 | Local Acceleration of Protons to 100 keV in a Quasi-Parallel Bow Shock. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029477. | 2.4 | 7 |
| 20 | Anomalous Reconnection Layer at Earth's Dayside Magnetopause. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2021JA029678. | 2.4 | 1 |
| 21 | Can Earth's Magnetotail Plasma Sheet Produce a Source of Relativistic Electrons for the Radiation Belts?. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL095495. | 4.0 | 11 |
| 22 | Neptune Odyssey: A Flagship Concept for the Exploration of the Neptune-Triton System. <i>Planetary Science Journal</i> , 2021, 2, 184. | 3.6 | 11 |
| 23 | Application of Cold and Hot Plasma Composition Measurements to Investigate Impacts on Dusk-Side Electromagnetic Ion Cyclotron Waves. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, . | 2.4 | 5 |
| 24 | Rocket Investigation of Current Closure in the Ionosphere (RICCI): A novel application of CubeSats from a sounding rocket platform. <i>Advances in Space Research</i> , 2020, 66, 98-106. | 2.6 | 1 |
| 25 | Overview of the Rocket Experiment for Neutral Upwelling Sounding Rocket 2 (RENU2). <i>Geophysical Research Letters</i> , 2020, 47, e2018GL081885. | 4.0 | 7 |
| 26 | Heavy Ion Charge States in Jupiter's Polar Magnetosphere Inferred From Auroral Megavolt Electric Potentials. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA028052. | 2.4 | 21 |
| 27 | Microscopic, Multipoint Characterization of Foreshock Bubbles With Magnetospheric Multiscale (MMS). <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027707. | 2.4 | 40 |
| 28 | Magnetospheric Studies: A Requirement for Addressing Interdisciplinary Mysteries in the Ice Giant Systems. <i>Space Science Reviews</i> , 2020, 216, 1. | 8.1 | 16 |
| 29 | Charge-State-Dependent Energization of Suprathermal Ions During Substorm Injections Observed by MMS in the Magnetotail. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA028144. | 2.4 | 8 |
| 30 | Cross-NASA divisional relevance of an Ice Giant mission. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20200222. | 3.4 | 4 |
| 31 | Ice giant magnetospheres. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190480. | 3.4 | 12 |
| 32 | Direct Evidence for Electron Acceleration Within Ion-Scale Flux Rope. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085141. | 4.0 | 44 |
| 33 | MMS Observations of Accelerated Interstellar Pickup He ⁺ Ions at an Interplanetary Shock. <i>Astrophysical Journal</i> , 2020, 897, 6. | 4.5 | 2 |
| 34 | Characteristics of Escaping Magnetospheric Ions Associated With Magnetic Field Fluctuations. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027337. | 2.4 | 2 |
| 35 | Ice giant system exploration in the 2020s: an introduction. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190473. | 3.4 | 13 |
| 36 | Observations of Particle Acceleration in Magnetic Reconnection-driven Turbulence. <i>Astrophysical Journal</i> , 2020, 898, 154. | 4.5 | 36 |

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|----|---|------|-----------|
| 37 | Heliospheric Maps from Cassini INCA Early in the Cruise to Saturn. <i>Astrophysical Journal Letters</i> , 2020, 902, L45. | 8.3 | 7 |
| 38 | Delayed Arrival of Energetic Solar Particles at MMS on 16 July 2017. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 2711-2719. | 2.4 | 1 |
| 39 | Drift-Dispersed Flux Dropouts of Energetic Electrons Observed in Earth's Middle Magnetosphere by the Magnetospheric Multiscale (MMS) Mission. <i>Geophysical Research Letters</i> , 2019, 46, 3069-3078. | 4.0 | 7 |
| 40 | Investigation of Mass-Charge-Dependent Escape of Energetic Ions Across the Magnetopauses of Earth and Jupiter. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 5539-5567. | 2.4 | 15 |
| 41 | Dynamic Response of Ionospheric Plasma Density to the Geomagnetic Storm of 22-23 June 2015. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 7123-7139. | 2.4 | 22 |
| 42 | Cusp and Nightside Auroral Sources of O^{+} in the Plasma Sheet. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 10036-10047. | 2.4 | 10 |
| 43 | MMS Measurements and Modeling of Peculiar Electromagnetic Ion Cyclotron Waves. <i>Geophysical Research Letters</i> , 2019, 46, 11622-11631. | 4.0 | 8 |
| 44 | High-Resolution Measurements of the Cross-Shock Potential, Ion Reflection, and Electron Heating at an Interplanetary Shock by MMS. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 3961-3978. | 2.4 | 36 |
| 45 | The Space Physics Environment Data Analysis System (SPEDAS). <i>Space Science Reviews</i> , 2019, 215, 9. | 8.1 | 332 |
| 46 | The Properties of Lion Roars and Electron Dynamics in Mirror Mode Waves Observed by the Magnetospheric MultiScale Mission. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 93-103. | 2.4 | 26 |
| 47 | Effects in the Near-Magnetopause Magnetosheath Elicited by Large-Amplitude Alfvénic Fluctuations Terminating in a Field and Flow Discontinuity. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 8983-9004. | 2.4 | 3 |
| 48 | Multiscale Currents Observed by MMS in the Flow Braking Region. <i>Journal of Geophysical Research: Space Physics</i> , 2018, 123, 1260-1278. | 2.4 | 32 |
| 49 | Kinetic Equilibrium of Dipolarization Fronts. <i>Scientific Reports</i> , 2018, 8, 17186. | 3.3 | 12 |
| 50 | Electron-scale dynamics of the diffusion region during symmetric magnetic reconnection in space. <i>Science</i> , 2018, 362, 1391-1395. | 12.6 | 221 |
| 51 | Interstellar Mapping and Acceleration Probe (IMAP): A New NASA Mission. <i>Space Science Reviews</i> , 2018, 214, 1. | 8.1 | 129 |
| 52 | Autogenous and efficient acceleration of energetic ions upstream of Earth's bow shock. <i>Nature</i> , 2018, 561, 206-210. | 27.8 | 47 |
| 53 | New Insights into the Nature of Turbulence in the Earth's Magnetosheath Using Magnetospheric MultiScale Mission Data. <i>Astrophysical Journal</i> , 2018, 859, 127. | 4.5 | 23 |
| 54 | MMS observation of inverse energy dispersion in shock drift accelerated ions. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 3232-3246. | 2.4 | 1 |

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|----|--|------|-----------|
| 55 | Multipoint Observations of Energetic Particle Injections and Substorm Activity During a Conjunction Between Magnetospheric Multiscale (MMS) and Van Allen Probes. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 11,481. | 2.4 | 42 |
| 56 | Charge Proportional and Weakly Mass-Dependent Acceleration of Different Ion Species in the Earth's Magnetotail. <i>Geophysical Research Letters</i> , 2017, 44, 10,108. | 4.0 | 7 |
| 57 | Examining Coherency Scales, Substructure, and Propagation of Whistler Mode Chorus Elements With Magnetospheric Multiscale (MMS). <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 11,201. | 2.4 | 18 |
| 58 | Lower Hybrid Drift Waves and Electromagnetic Electron Space-Phase Holes Associated With Dipolarization Fronts and Field-Aligned Currents Observed by the Magnetospheric Multiscale Mission During a Substorm. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 12,236. | 2.4 | 31 |
| 59 | Dominance of high-energy (>150 keV) heavy ion intensities in Earth's middle to outer magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 9282-9293. | 2.4 | 18 |
| 60 | MMS Observations of Reconnection at Dayside Magnetopause Crossings During Transitions of the Solar Wind to Sub-Alfvénic Flow. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 9934-9951. | 2.4 | 3 |
| 61 | Storm time empirical model of O ⁶⁺ and O ⁶⁺ distributions in the magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 8353-8374. | 2.4 | 18 |
| 62 | Statistical analysis of MMS observations of energetic electron escape observed at/beyond the dayside magnetopause. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 9440-9463. | 2.4 | 14 |
| 63 | Near-Earth plasma sheet boundary dynamics during substorm dipolarization. <i>Earth, Planets and Space</i> , 2017, 69, 129. | 2.5 | 15 |
| 64 | The "Puck" energetic charged particle detector: Design, heritage, and advancements. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 7900-7913. | 2.4 | 15 |
| 65 | Currents and associated electron scattering and bouncing near the diffusion region at Earth's magnetopause. <i>Geophysical Research Letters</i> , 2016, 43, 3042-3050. | 4.0 | 81 |
| 66 | Energetic electron acceleration observed by MMS in the vicinity of an X-line crossing. <i>Geophysical Research Letters</i> , 2016, 43, 7356-7363. | 4.0 | 21 |
| 67 | Electron-scale measurements of magnetic reconnection in space. <i>Science</i> , 2016, 352, aaf2939. | 12.6 | 545 |
| 68 | Observations of energetic particle escape at the magnetopause: Early results from the MMS Energetic Ion Spectrometer (EIS). <i>Geophysical Research Letters</i> , 2016, 43, 5960-5968. | 4.0 | 23 |
| 69 | Transient, small-scale field-aligned currents in the plasma sheet boundary layer during storm time substorms. <i>Geophysical Research Letters</i> , 2016, 43, 4841-4849. | 4.0 | 30 |
| 70 | Modeling magnetospheric energetic particle escape across Earth's magnetopause as observed by the MMS mission. <i>Geophysical Research Letters</i> , 2016, 43, 4081-4088. | 4.0 | 19 |
| 71 | The substructure of a flux transfer event observed by the MMS spacecraft. <i>Geophysical Research Letters</i> , 2016, 43, 9434-9443. | 4.0 | 33 |
| 72 | Rocket-borne measurements of electron temperature and density with the Electron Retarding Potential Analyzer instrument. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 6774-6782. | 2.4 | 8 |

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|----|--|-----|-----------|
| 73 | Inverse energy dispersion of energetic ions observed in the magnetosheath. <i>Geophysical Research Letters</i> , 2016, 43, 7338-7347. | 4.0 | 5 |
| 74 | Measuring the seeds of ion outflow: Auroral sounding rocket observations of low-altitude ion heating and circulation. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 1587-1607. | 2.4 | 19 |
| 75 | Multispacecraft analysis of dipolarization fronts and associated whistler wave emissions using MMS data. <i>Geophysical Research Letters</i> , 2016, 43, 7279-7286. | 4.0 | 49 |
| 76 | Electrodynamic context of magnetopause dynamics observed by magnetospheric multiscale. <i>Geophysical Research Letters</i> , 2016, 43, 5988-5996. | 4.0 | 10 |
| 77 | Energy limits of electron acceleration in the plasma sheet during substorms: A case study with the Magnetospheric Multiscale (MMS) mission. <i>Geophysical Research Letters</i> , 2016, 43, 7785-7794. | 4.0 | 51 |
| 78 | The permeability of the magnetopause to a multispecies substorm injection of energetic particles. <i>Geophysical Research Letters</i> , 2016, 43, 9453-9460. | 4.0 | 7 |
| 79 | Dipolarization in the inner magnetosphere during a geomagnetic storm on 7 October 2015. <i>Geophysical Research Letters</i> , 2016, 43, 9397-9405. | 4.0 | 7 |
| 80 | Microinjections observed by MMS FEEPS in the dusk to midnight region. <i>Geophysical Research Letters</i> , 2016, 43, 6078-6086. | 4.0 | 13 |
| 81 | A telescopic and microscopic examination of acceleration in the June 2015 geomagnetic storm: Magnetospheric Multiscale and Van Allen Probes study of substorm particle injection. <i>Geophysical Research Letters</i> , 2016, 43, 6051-6059. | 4.0 | 30 |
| 82 | Ion upflow dependence on ionospheric density and solar photoionization. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 10039-10052. | 2.4 | 16 |
| 83 | Auroral Current and Electrodynamics Structure (ACES) observations of ionospheric feedback in the Alfvén resonator and model responses. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 3288-3296. | 2.4 | 19 |
| 84 | Modeling of Jupiter's auroral curtain and upper atmospheric thermal structure. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a. | 3.3 | 4 |
| 85 | A Statistical Study of Magnetopause Boundary Layer Energetic Electron Enhancements Using MMS. <i>Frontiers in Astronomy and Space Sciences</i> , 0, 9, . | 2.8 | 1 |