

Danny Summers

List of Publications by Year in descending order

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106
papers

9,869
citations

53660

45
h-index

34900

98
g-index

107
all docs

107
docs citations

107
times ranked

2661
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Relativistic theory of wave-particle resonant diffusion with application to electron acceleration in the magnetosphere. <i>Journal of Geophysical Research</i> , 1998, 103, 20487-20500. | 3.3 | 737 |
| 2 | The modified plasma dispersion function. <i>Physics of Fluids B</i> , 1991, 3, 1835-1847. | 1.7 | 645 |
| 3 | Relativistic electron pitch-angle scattering by electromagnetic ion cyclotron waves during geomagnetic storms. <i>Journal of Geophysical Research</i> , 2003, 108, . | 3.3 | 616 |
| 4 | The FIELDS Instrument Suite for Solar Probe Plus. <i>Space Science Reviews</i> , 2016, 204, 49-82. | 3.7 | 521 |
| 5 | The Axial Double Probe and Fields Signal Processing for the MMS Mission. <i>Space Science Reviews</i> , 2016, 199, 167-188. | 3.7 | 489 |
| 6 | Theory and simulation of the generation of whistler-mode chorus. <i>Journal of Geophysical Research</i> , 2008, 113, . | 3.3 | 440 |
| 7 | Timescales for radiation belt electron acceleration and loss due to resonant wave-particle interactions: 2. Evaluation for VLF chorus, ELF hiss, and electromagnetic ion cyclotron waves. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a. | 3.3 | 391 |
| 8 | Statistical analysis of relativistic electron energies for cyclotron resonance with EMIC waves observed on CRRES. <i>Journal of Geophysical Research</i> , 2003, 108, . | 3.3 | 380 |
| 9 | Timescale for MeV electron microburst loss during geomagnetic storms. <i>Journal of Geophysical Research</i> , 2005, 110, . | 3.3 | 296 |
| 10 | Substorm dependence of plasmaspheric hiss. <i>Journal of Geophysical Research</i> , 2004, 109, . | 3.3 | 281 |
| 11 | Nonlinear mechanisms of lower-band and upper-band VLF chorus emissions in the magnetosphere. <i>Journal of Geophysical Research</i> , 2009, 114, . | 3.3 | 253 |
| 12 | Quasi-linear diffusion coefficients for field-aligned electromagnetic waves with applications to the magnetosphere. <i>Journal of Geophysical Research</i> , 2005, 110, . | 3.3 | 236 |
| 13 | Evidence for chorus-driven electron acceleration to relativistic energies from a survey of geomagnetically disturbed periods. <i>Journal of Geophysical Research</i> , 2003, 108, . | 3.3 | 234 |
| 14 | Timescales for radiation belt electron acceleration and loss due to resonant wave-particle interactions: 1. Theory. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a. | 3.3 | 211 |
| 15 | Relativistic turning acceleration of resonant electrons by coherent whistler mode waves in a dipole magnetic field. <i>Journal of Geophysical Research</i> , 2007, 112, n/a-n/a. | 3.3 | 208 |
| 16 | A model for generating relativistic electrons in the Earth's inner magnetosphere based on gyroresonant wave-particle interactions. <i>Journal of Geophysical Research</i> , 2000, 105, 2625-2639. | 3.3 | 177 |
| 17 | Electron scattering by whistler-mode ELF hiss in plasmaspheric plumes. <i>Journal of Geophysical Research</i> , 2008, 113, . | 3.3 | 175 |
| 18 | Model of the energization of outer-zone electrons by whistler-mode chorus during the October 9, 1990 geomagnetic storm. <i>Geophysical Research Letters</i> , 2002, 29, 27-1-27-4. | 1.5 | 173 |

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|----|---|-----|-----------|
| 19 | Energetic outer zone electron loss timescales during low geomagnetic activity. Journal of Geophysical Research, 2006, 111, . | 3.3 | 170 |
| 20 | Landau damping in space plasmas. Physics of Fluids B, 1991, 3, 2117-2123. | 1.7 | 138 |
| 21 | Bounce-averaged diffusion coefficients for field-aligned chorus waves. Journal of Geophysical Research, 2006, 111, . | 3.3 | 115 |
| 22 | Calculation of the dielectric tensor for a generalized Lorentzian (κ) distribution function. Physics of Plasmas, 1994, 1, 2012-2025. | 0.7 | 112 |
| 23 | Formation of power-law energy spectra in space plasmas by stochastic acceleration due to whistler-mode waves. Geophysical Research Letters, 1998, 25, 4099-4102. | 1.5 | 110 |
| 24 | Dynamics of high-energy electrons interacting with whistler mode chorus emissions in the magnetosphere. Journal of Geophysical Research, 2006, 111, . | 3.3 | 106 |
| 25 | Ultra-relativistic acceleration of electrons in planetary magnetospheres. Geophysical Research Letters, 2007, 34, . | 1.5 | 102 |
| 26 | Evidence for acceleration of outer zone electrons to relativistic energies by whistler mode chorus. Annales Geophysicae, 2002, 20, 967-979. | 0.6 | 100 |
| 27 | Instability of electromagnetic R-mode waves in a relativistic plasma. Physics of Plasmas, 1998, 5, 2489-2497. | 0.7 | 99 |
| 28 | Formation process of relativistic electron flux through interaction with chorus emissions in the Earth's inner magnetosphere. Journal of Geophysical Research: Space Physics, 2015, 120, 9545-9562. | 0.8 | 98 |
| 29 | A new tool for analyzing microinstabilities in space plasmas modeled by a generalized Lorentzian (κ) distribution. Journal of Geophysical Research, 1992, 97, 16827-16832. | 3.3 | 94 |
| 30 | Formation of energetic electron butterfly distributions by magnetosonic waves via Landau resonance. Geophysical Research Letters, 2016, 43, 3009-3016. | 1.5 | 88 |
| 31 | Microburst precipitation of energetic electrons associated with chorus wave generation. Geophysical Research Letters, 2010, 37, . | 1.5 | 84 |
| 32 | Limit on stably trapped particle fluxes in planetary magnetospheres. Journal of Geophysical Research, 2009, 114, . | 3.3 | 81 |
| 33 | Warm plasma effects on electromagnetic ion cyclotron wave MeV electron interactions in the magnetosphere. Journal of Geophysical Research, 2011, 116, . | 3.3 | 81 |
| 34 | Fine structure of plasmaspheric hiss. Journal of Geophysical Research: Space Physics, 2014, 119, 9134-9149. | 0.8 | 74 |
| 35 | Aspects of Nonlinear Wave-Particle Interactions. Geophysical Monograph Series, 0, , 255-264. | 0.1 | 72 |
| 36 | Electromagnetic ion-cyclotron instability in space plasmas. Journal of Geophysical Research, 1993, 98, 17475-17484. | 3.3 | 68 |

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|----|---|-----|-----------|
| 37 | Ion-acoustic wave instability driven by drifting electrons in a generalized Lorentzian distribution. <i>Journal of Plasma Physics</i> , 1992, 47, 445-464. | 0.7 | 66 |
| 38 | Hot Plasma Effects on the Cyclotron-Resonant Pitch-Angle Scattering Rates of Radiation Belt Electrons Due to EMIC Waves. <i>Geophysical Research Letters</i> , 2018, 45, 21-30. | 1.5 | 66 |
| 39 | Plasma microinstabilities driven by loss-cone distributions. <i>Journal of Plasma Physics</i> , 1995, 53, 293-315. | 0.7 | 65 |
| 40 | Competition between acceleration and loss mechanisms of relativistic electrons during geomagnetic storms. <i>Journal of Geophysical Research</i> , 2004, 109, . | 3.3 | 62 |
| 41 | Relativistic turning acceleration of radiation belt electrons by whistler mode chorus. <i>Journal of Geophysical Research</i> , 2008, 113, . | 3.3 | 59 |
| 42 | The influence of wave-particle interactions on relativistic electron dynamics during storms. <i>Geophysical Monograph Series</i> , 2005, , 101-112. | 0.1 | 56 |
| 43 | Generation Processes of Whistler Mode Chorus Emissions: Current Status of Nonlinear Wave Growth Theory. <i>Geophysical Monograph Series</i> , 0, , 243-254. | 0.1 | 56 |
| 44 | Nonlinear wave growth theory of coherent hiss emissions in the plasmasphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 7642-7657. | 0.8 | 52 |
| 45 | Electromagnetic ion cyclotron waves in the Earth's magnetosphere with a kappa-Maxwellian particle distribution. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 8426-8439. | 0.8 | 48 |
| 46 | Relativistic electron precipitation induced by EMIC-triggered emissions in a dipole magnetosphere. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 4384-4399. | 0.8 | 48 |
| 47 | Computer simulations of the chaotic dynamics of the Pierce beam-plasma system. <i>Physics of Plasmas</i> , 1996, 3, 177-191. | 0.7 | 46 |
| 48 | Bounce resonance scattering of radiation belt electrons by H^{+} band EMIC waves. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 1702-1713. | 0.8 | 44 |
| 49 | Nonlinear spatiotemporal evolution of whistler mode chorus waves in Earth's inner magnetosphere. <i>Journal of Geophysical Research</i> , 2012, 117, . | 3.3 | 42 |
| 50 | Estimating relativistic electron pitch angle scattering rates using properties of the electromagnetic ion cyclotron wave spectrum. <i>Journal of Geophysical Research</i> , 2006, 111, . | 3.3 | 39 |
| 51 | Rapid energization of radiation belt electrons by nonlinear wave trapping. <i>Annales Geophysicae</i> , 2008, 26, 3451-3456. | 0.6 | 39 |
| 52 | Evaluation of the modified plasma dispersion function for half-integral indices. <i>Physics of Plasmas</i> , 1996, 3, 2496-2501. | 0.7 | 36 |
| 53 | Parametric study of electromagnetic ion cyclotron instability in the Earth's magnetosphere. <i>Journal of Geophysical Research</i> , 1996, 101, 15467-15474. | 3.3 | 35 |
| 54 | Correction to "Formation of power-law energy spectra in space plasmas by stochastic acceleration due to whistler-mode waves". <i>Geophysical Research Letters</i> , 1999, 26, 1121-1124. | 1.5 | 35 |

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|----|--|-----|-----------|
| 55 | Self-consistent particle simulation of whistler mode triggered emissions. Journal of Geophysical Research, 2010, 115, . | 3.3 | 35 |
| 56 | Subpacket structures in EMIC rising tone emissions observed by the THEMIS probes. Journal of Geophysical Research: Space Physics, 2015, 120, 7318-7330. | 0.8 | 35 |
| 57 | The Energization and Radiation in Geospace (ERG) Project. Geophysical Monograph Series, 0, , 103-116. | 0.1 | 33 |
| 58 | Statistical Properties of Hiss in Plasmaspheric Plumets and Associated Scattering Losses of Radiation Belt Electrons. Geophysical Research Letters, 2019, 46, 5670-5680. | 1.5 | 32 |
| 59 | Growth and damping of oblique electromagnetic ion cyclotron waves in the Earth's magnetosphere. Journal of Geophysical Research, 1996, 101, 15457-15466. | 3.3 | 31 |
| 60 | Electron Scattering by Plasmaspheric Hiss in a Nightside Plume. Geophysical Research Letters, 2018, 45, 4618-4627. | 1.5 | 29 |
| 61 | Bounce Resonance Scattering of Radiation Belt Electrons by Low-Frequency Hiss: Comparison With Cyclotron and Landau Resonances. Geophysical Research Letters, 2017, 44, 9547-9554. | 1.5 | 28 |
| 62 | Sensitivity of EMIC Wave-Driven Scattering Loss of Ring Current Protons to Wave Normal Angle Distribution. Geophysical Research Letters, 2019, 46, 590-598. | 1.5 | 28 |
| 63 | Effects of nonlinear wave growth on extreme radiation belt electron fluxes. Journal of Geophysical Research, 2011, 116, n/a-n/a. | 3.3 | 27 |
| 64 | Observational evidence of the nonlinear wave growth theory of plasmaspheric hiss. Geophysical Research Letters, 2016, 43, 10,040. | 1.5 | 26 |
| 65 | Survey of radiation belt energetic electron pitch angle distributions based on the Van Allen Probes MagEIS measurements. Journal of Geophysical Research: Space Physics, 2016, 121, 1078-1090. | 0.8 | 26 |
| 66 | Parameter spaces for linear and nonlinear whistler-mode waves. Physics of Plasmas, 2013, 20, . | 0.7 | 24 |
| 67 | Energetic electron fluxes at Saturn from Cassini observations. Journal of Geophysical Research, 2012, 117, . | 3.3 | 23 |
| 68 | Fine Structure of Whistler Mode Hiss in Plasmaspheric Plumets Observed by the Van Allen Probes. Journal of Geophysical Research: Space Physics, 2018, 123, 9055-9064. | 0.8 | 20 |
| 69 | Limiting energy spectrum of an electron radiation belt. Journal of Geophysical Research: Space Physics, 2014, 119, 6313-6326. | 0.8 | 17 |
| 70 | Statistical Distributions of Dayside ECH Waves Observed by MMS. Geophysical Research Letters, 2018, 45, 12,730. | 1.5 | 16 |
| 71 | Optimal technique for estimating the reachable set of a controlledn-dimensional linear system. International Journal of Systems Science, 1990, 21, 675-692. | 3.7 | 15 |
| 72 | Pitch-angle scattering rates in planetary magnetospheres. Journal of Plasma Physics, 2005, 71, 237-250. | 0.7 | 15 |

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|----|---|-----|-----------|
| 73 | Comparative study of outer-zone relativistic electrons observed by Akebono and CRRES. <i>Journal of Geophysical Research</i> , 2005, 110, . | 3.3 | 15 |
| 74 | Nonlinear Coupling Between Whistler-Mode Chorus and Electron Cyclotron Harmonic Waves in the Magnetosphere. <i>Geophysical Research Letters</i> , 2018, 45, 12,685. | 1.5 | 15 |
| 75 | Effects of Polarization Reversal on the Pitch Angle Scattering of Radiation Belt Electrons and Ring Current Protons by EMIC Waves. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089718. | 1.5 | 15 |
| 76 | Plasma Wave Observations at Earth, Jupiter, and Saturn. <i>Geophysical Monograph Series</i> , 0, , 415-430. | 0.1 | 12 |
| 77 | Energetic Proton Spectra Measured by the Van Allen Probes. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 10,129. | 0.8 | 12 |
| 78 | Dependence of Whistler Mode Chorus Wave Generation on the Maximum Linear Growth Rate. <i>Journal of Geophysical Research: Space Physics</i> , 2019, 124, 4114-4124. | 0.8 | 12 |
| 79 | Hot Plasma Effects on the Pitch-angle Scattering Rates of Radiation Belt Electrons Due to Plasmaspheric Hiss. <i>Astrophysical Journal</i> , 2020, 896, 118. | 1.6 | 12 |
| 80 | Effects of cold electron number density variation on whistler-mode wave growth. <i>Annales Geophysicae</i> , 2014, 32, 889-898. | 0.6 | 12 |
| 81 | A statistical study of proton pitch angle distributions measured by the Radiation Belt Storm Probes Ion Composition Experiment. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 5233-5249. | 0.8 | 11 |
| 82 | State estimation of linear dynamical systems under bounded control. <i>Journal of Optimization Theory and Applications</i> , 1992, 72, 299-318. | 0.8 | 10 |
| 83 | Linear and Nonlinear Growth of Magnetospheric Whistler Mode Waves. <i>Geophysical Monograph Series</i> , 0, , 265-280. | 0.1 | 10 |
| 84 | Empirical Loss Timescales of Slot Region Electrons due to Plasmaspheric Hiss Based on Van Allen Probes Observations. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA029057. | 0.8 | 10 |
| 85 | Resonance zones for electron interaction with plasma waves in the Earth's dipole magnetosphere. II. Evaluation for oblique chorus, hiss, electromagnetic ion cyclotron waves, and magnetosonic waves. <i>Physics of Plasmas</i> , 2010, 17, 042903. | 0.7 | 9 |
| 86 | On the existence of a Lorenz Strange Attractor in magnetospheric convection dynamics. <i>Geophysical Research Letters</i> , 1992, 19, 1899-1902. | 1.5 | 8 |
| 87 | Excitation of magnetosonic waves in the undisturbed solar wind. <i>Geophysical Research Letters</i> , 1996, 23, 2557-2560. | 1.5 | 8 |
| 88 | Correction to "Formation of power-law energy spectra in space plasmas by stochastic acceleration due to whistler-mode waves". <i>Geophysical Research Letters</i> , 1999, 26, 181-183. | 1.5 | 8 |
| 89 | Resonance zones for electron interaction with plasma waves in the Earth's dipole magnetosphere. I. Evaluation for field-aligned chorus, hiss, and electromagnetic ion cyclotron waves. <i>Physics of Plasmas</i> , 2010, 17, 042902. | 0.7 | 8 |
| 90 | Non-stormtime injection of energetic particles into the slot region between Earth's inner and outer electron radiation belts as observed by STSAT-1 and NOAA-POES. <i>Geophysical Research Letters</i> , 2010, 37, . | 1.5 | 8 |

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|-----|--|-----|-----------|
| 91 | Generation of Electron Acoustic Waves in the Topside Ionosphere From Coupling With Kinetic Alfven Waves: A New Electron Energization Mechanism. <i>Geophysical Research Letters</i> , 2018, 45, 5299-5304. | 1.5 | 8 |
| 92 | Particle Simulation of the Generation of Plasmaspheric Hiss. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2020JA027973. | 0.8 | 8 |
| 93 | Effects of Superthermal Plasmas on the Linear Growth of Multiband EMIC Waves. <i>Astrophysical Journal</i> , 2020, 899, 43. | 1.6 | 7 |
| 94 | Approximation techniques in complex reaction kinetics. <i>International Journal of Chemical Kinetics</i> , 1987, 19, 553-570. | 1.0 | 6 |
| 95 | Recent Advances in Understanding the Diffuse Auroral Precipitation: The Role of Resonant Wave-Particle Interactions. <i>Geophysical Monograph Series</i> , 2013, , 291-302. | 0.1 | 6 |
| 96 | Influence of Kappa Distributions on the Whistler Mode Instability. <i>Journal of Geophysical Research: Space Physics</i> , 2021, 126, e2020JA028276. | 0.8 | 6 |
| 97 | Limitation of energetic ring current ion spectra. <i>Journal of Geophysical Research: Space Physics</i> , 2015, 120, 7374-7389. | 0.8 | 5 |
| 98 | Outer ellipsoidal approximations of the reachable set at infinity for linear systems. <i>Journal of Optimization Theory and Applications</i> , 1996, 89, 157-173. | 0.8 | 3 |
| 99 | Finite-beta effects on quasi-linear diffusion coefficients. <i>Journal of Geophysical Research</i> , 2011, 116, n/a-n/a. | 3.3 | 3 |
| 100 | NASA's Radiation Belt Storm Probes Mission: From Concept to Reality. <i>Geophysical Monograph Series</i> , 0, , 93-102. | 0.1 | 3 |
| 101 | Spectral representation of the isotropic Coulomb collisional operator. <i>Journal of Plasma Physics</i> , 1997, 58, 475-484. | 0.7 | 2 |
| 102 | State of the art in radiation belt research. <i>Eos</i> , 2011, 92, 457-457. | 0.1 | 2 |
| 103 | Energy-dependent Boundaries of Earth's Radiation Belt Electron Slot Region. <i>Astrophysical Journal</i> , 2021, 922, 246. | 1.6 | 2 |
| 104 | Spectral Analysis of the Flow of a Neutralized Electron Beam. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 1997, 07, 1075-1101. | 0.7 | 1 |
| 105 | Comment on "Evolution of Langmuir soliton caused by resonant emission of ion sound wave" [<i>Phys. Plasmas</i> 5, 3487 (1998)]. <i>Physics of Plasmas</i> , 1999, 6, 3721-3723. | 0.7 | 1 |
| 106 | The Axial Double Probe and Fields Signal Processing for the MMS Mission. , 2016, 199, 167. | | 1 |