Didier Mourenas

List of Publications by Year
in descending order

84	3,092	117625	182427
papers	citations	34 h-index	51 g-index

84	84	84	977
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Statistics of whistler mode waves in the outer radiation belt: Cluster STAFFâ€SA measurements. Journal of Geophysical Research: Space Physics, 2013, 118, 3407-3420.	2.4	205
2	Oblique Whistler-Mode Waves in the Earthâ€™s Inner Magnetosphere: Energy Distribution, Origins, and Role in Radiation Belt Dynamics. Space Science Reviews, 2016, 200, 261-355.	8.1	145
3	Synthetic Empirical Chorus Wave Model From Combined Van Allen Probes and Cluster Statistics. Journal of Geophysical Research: Space Physics, 2018, 123, 297-314.	2.4	100
4	Consequences of geomagnetic activity on energization and loss of radiation belt electrons by oblique chorus waves. Journal of Geophysical Research: Space Physics, 2014, 119, 2775-2796.	2.4	85
5	Very oblique whistler generation by lowâ€energy electron streams. Journal of Geophysical Research: Space Physics, 2015, 120, 3665-3683.	2.4	78
6	Fast dropouts of multiâ€MeV electrons due to combined effects of EMIC and whistler mode waves. Geophysical Research Letters, 2016, 43, 4155-4163.	4.0	76
7	Unraveling the excitation mechanisms of highly oblique lower band chorus waves. Geophysical Research Letters, 2016, 43, 8867-8875.	4.0	75
8	Nonlinear local parallel acceleration of electrons through Landau trapping by oblique whistler mode waves in the outer radiation belt. Geophysical Research Letters, 2015, 42, 10,140.	4.0	74
9	Timescales for electron quasiâ€linear diffusion by parallel and oblique lowerâ€band chorus waves. Journal of Geophysical Research, 2012, 117, .	3.3	71
10	The quasiâ€electrostatic mode of chorus waves and electron nonlinear acceleration. Journal of Geophysical Research: Space Physics, 2014, 119, 1606-1626.	2.4	70
11	VLF waves from groundâ€based transmitters observed by the Van Allen Probes: Statistical model and effects on plasmaspheric electrons. Geophysical Research Letters, 2017, 44, 6483-6491.	4.0	66
12	Analytical estimates of electron quasiâ€linear diffusion by fast magnetosonic waves. Journal of Geophysical Research: Space Physics, 2013, 118, 3096-3112.	2.4	63
13	Evidence of stronger pitch angle scattering loss caused by oblique whistlerâ€mode waves as compared with quasiâ€parallel waves. Geophysical Research Letters, 2014, 41, 6063-6070.	4.0	63
14	Properties of Intense Fieldâ€Aligned Lowerâ€Band Chorus Waves: Implications for Nonlinear Waveâ€Particle Interactions. Journal of Geophysical Research: Space Physics, 2018, 123, 5379-5393.	2.4	62
15	Non-diffusive resonant acceleration of electrons in the radiation belts. Physics of Plasmas, 2012, 19, .	1.9	61
16	Electron Nonlinear Resonant Interaction With Short and Intense Parallel Chorus Wave Packets. Journal of Geophysical Research: Space Physics, 2018, 123, 4979-4999.	2.4	59
17	Wave energy budget analysis in the Earthâ€™s radiation belts uncovers a missing energy. Nature Communications, 2015, 6, 8143.	12.8	54
18	Nonlinear Electron Interaction With Intense Chorus Waves: Statistics of Occurrence Rates. Geophysical Research Letters, 2019, 46, 7182-7190.	4.0	53

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19	Spatial Extent and Temporal Correlation of Chorus and Hiss: Statistical Results From Multipoint THEMIS Observations. Journal of Geophysical Research: Space Physics, 2018, 123, 8317-8330.	2.4	52
20	Analytical estimates of quasiâ€linear diffusion coefficients and electron lifetimes in the inner radiation belt. Journal of Geophysical Research, 2012, 117, .	3.3	49
21	Inner belt and slot region electron lifetimes and energization rates based on AKEBONO statistics of whistler waves. Journal of Geophysical Research: Space Physics, 2014, 119, 2876-2893.	2.4	48
22	Phase Decoherence Within Intense Chorus Wave Packets Constrains the Efficiency of Nonlinear Resonant Electron Acceleration. Geophysical Research Letters, 2020, 47, e2020GL089807.	4.0	48
23	Nonlinear electron acceleration by oblique whistler waves: Landau resonance vs. cyclotron resonance. Physics of Plasmas, 2013, 20, .	1.9	47
24	Evolution of Electron Distribution Driven by Nonlinear Resonances With Intense Fieldâ€Aligned Chorus Waves. Journal of Geophysical Research: Space Physics, 2018, 123, 8149-8169.	2.4	47
25	Parametric validations of analytical lifetime estimates for radiation belt electron diffusion by whistler waves. Annales Geophysicae, 2013, 31, 599-624.	1.6	46
26	Magnetospheric Multiscale Satellite Observations of Parallel Electron Acceleration in Magnetic Field Reconnection by Fermi Reflection from Time Domain Structures. Physical Review Letters, 2016, 116, 145101.	7.8	45
27	Fast transport of resonant electrons in phase space due to nonlinear trapping by whistler waves. Geophysical Research Letters, 2014, 41, 5727-5733.	4.0	44
28	Empirical model of lower band chorus wave distribution in the outer radiation belt. Journal of Geophysical Research: Space Physics, 2015, 120, 10,425.	2.4	43
29	Stormâ€induced energization of radiation belt electrons: Effect of wave obliquity. Geophysical Research Letters, 2013, 40, 4138-4143.	4.0	41
30	Scaling laws for the inner structure of the radiation belts. Geophysical Research Letters, 2017, 44, 3009-3018.	4.0	40
31	Contemporaneous EMIC and whistler mode waves: Observations and consequences for MeV electron loss. Geophysical Research Letters, 2017, 44, 8113-8121.	4.0	40
32	Electron scattering and nonlinear trapping by oblique whistler waves: The critical wave intensity for nonlinear effects. Physics of Plasmas, 2014, 21, .	1.9	39
33	Rapid Frequency Variations Within Intense Chorus Wave Packets. Geophysical Research Letters, 2020, 47, e2020GL088853.	4.0	37
34	Stability of relativistic electron trapping by strong whistler or electromagnetic ion cyclotron waves. Physics of Plasmas, 2015, 22, 082901.	1.9	36
35	Exclusion principle for very oblique and parallel lower band chorus waves. Geophysical Research Letters, 2016, 43, 11,112.	4.0	36
36	Nearâ€relativistic electron acceleration by Landau trapping in time domain structures. Geophysical Research Letters, 2016, 43, 508-514.	4.0	35

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37	Kinetic equation for nonlinear resonant wave-particle interaction. Physics of Plasmas, 2016, 23, .	1.9	34
38	Probability of relativistic electron trapping by parallel and oblique whistler-mode waves in Earth's radiation belts. Physics of Plasmas, 2015, 22, .	1.9	33
39	Strong enhancement of 10â€“100â€‰keV electron fluxes by combined effects of chorus waves and time domain structures. Geophysical Research Letters, 2016, 43, 4683-4690.	4.0	33
40	Time Scales for Electron Quasiâ€linear Diffusion by Lowerâ€Band Chorus Waves: The Effects of Ï‰_{pe}/Î©_{ce} Dependence on Geomagnetic Activity. Geophysical Research Letters, 2019, 46, 6178-6187.	4.0	33
41	Electron flux dropouts at Geostationary Earth Orbit: Occurrences, magnitudes, and main driving factors. Journal of Geophysical Research: Space Physics, 2016, 121, 8448-8461.	2.4	31
42	Long-term evolution of electron distribution function due to nonlinear resonant interaction with whistler mode waves. Journal of Plasma Physics, 2018, 84, .	2.1	31
43	Acceleration of radiation belts electrons by oblique chorus waves. Journal of Geophysical Research, 2012, 117, .	3.3	30
44	Electron Flux Dropouts at L â‰¥ 4.2 From Global Positioning System Satellites: Occurrences, Magnitudes, and Main Driving Factors. Journal of Geophysical Research: Space Physics, 2017, 122, 11,428.	2.4	29
45	Observational evidence of generation mechanisms for very oblique lower band chorus using THEMIS waveform data. Journal of Geophysical Research: Space Physics, 2016, 121, 6732-6748.	2.4	28
46	Superfast precipitation of energetic electrons in the radiation belts of the Earth. Nature Communications, 2022, 13, 1611.	12.8	27
47	Probabilistic approach to nonlinear wave-particle resonant interaction. Physical Review E, 2017, 95, 023204.	2.1	25
48	Very Oblique Whistler Mode Propagation in the Radiation Belts: Effects of Hot Plasma and Landau Damping. Geophysical Research Letters, 2017, 44, 12,057.	4.0	25
49	Electron Lifetimes and Diffusion Rates Inferred From ELFIN Measurements at Low Altitude: First Results. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029757.	2.4	24
50	Fine Structure of Chorus Wave Packets: Comparison Between Observations and Wave Generation Models. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029330.	2.4	23
51	Electron pitch-angle diffusion: resonant scattering by waves vs. nonadiabatic effects. Annales Geophysicae, 2013, 31, 1485-1490.	1.6	22
52	Approximate analytical solutions for the trapped electron distribution due to quasiâ€linear diffusion by whistler mode waves. Journal of Geophysical Research: Space Physics, 2014, 119, 9962-9977.	2.4	22
53	Generation of Realistic Short Chorus Wave Packets. Geophysical Research Letters, 2021, 48, e2020GL092178.	4.0	22
54	Short Chorus Wave Packets: Generation Within Chorus Elements, Statistics, and Consequences on Energetic Electron Precipitation. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	22

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55	Relativistic electron scattering by magnetosonic waves: Effects of discrete wave emission and high wave amplitudes. Physics of Plasmas, 2015, 22, .	1.9	21
56	Impact of Significant Timeâ€Integrated Geomagnetic Activity on 2â€MeV Electron Flux. Journal of Geophysical Research: Space Physics, 2019, 124, 4445-4461.	2.4	21
57	Long-term dynamics driven by resonant waveâ€“particle interactions: from Hamiltonian resonance theory to phase space mapping. Journal of Plasma Physics, 2021, 87, .	2.1	21
58	Characteristics of Electron Microburst Precipitation Based on Highâ€Resolution ELFIN Measurements. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	21
59	Transitional regime of electron resonant interaction with whistler-mode waves in inhomogeneous space plasma. Physical Review E, 2021, 104, 055203.	2.1	19
60	EMIC Waveâ€Driven Bounce Resonance Scattering of Energetic Electrons in the Inner Magnetosphere. Journal of Geophysical Research: Space Physics, 2019, 124, 2484-2496.	2.4	18
61	On Whistler Mode Wave Relation to Electron Fieldâ€Aligned Plateau Populations. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027735.	2.4	18
62	Precipitation of MeV and Subâ€MeV Electrons Due to Combined Effects of EMIC and ULF Waves. Journal of Geophysical Research: Space Physics, 2019, 124, 7923-7935.	2.4	17
63	Role of Ducting in Relativistic Electron Loss by Whistlerâ€Mode Wave Scattering. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029851.	2.4	17
64	Equatorial electron loss by double resonance with oblique and parallel intense chorus waves. Journal of Geophysical Research: Space Physics, 2016, 121, 4498-4517.	2.4	16
65	Lifetimes of Relativistic Electrons as Determined From Plasmaspheric Hiss Scattering Rates Statistics: Effects of Ï‰_{pe}/Î©_{ce} and Wave Frequency Dependence on Geomagnetic Activity. Geophysical Research Letters, 2020, 47, e2020GL088052.	4.0	16
66	Outer Radiation Belt Electron Lifetime Model Based on Combined Van Allen Probes and Cluster VLF Measurements. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028018.	2.4	15
67	Immediate and delayed responses of power lines and transformers in the Czech electric power grid to geomagnetic storms. Journal of Space Weather and Space Climate, 2020, 10, 26.	3.3	14
68	Statistics of Extreme Timeâ€Integrated Geomagnetic Activity. Geophysical Research Letters, 2018, 45, 502-510.	4.0	13
69	On the Nature of Intense Subâ€Relativistic Electron Precipitation. Journal of Geophysical Research: Space Physics, 2022, 127, .	2.4	13
70	Decay of Ultrarelativistic Remnant Belt Electrons Through Scattering by Plasmaspheric Hiss. Journal of Geophysical Research: Space Physics, 2019, 124, 5222-5233.	2.4	12
71	Ionosphere Feedback to Electron Scattering by Equatorial Whistler Mode Waves. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028373.	2.4	12
72	Dependence of Relativistic Electron Precipitation in the Ionosphere on EMIC Wave Minimum Resonant Energy at the Conjugate Equator. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029193.	2.4	12

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73	Packets of cyclotron waves induced by electron beam injection from the space shuttle 1. Linear theory. Radio Science, 1991, 26, 469-479.	1.6	10
74	Transverse eV ion heating by random electric field fluctuations in the plasmasphere. Physics of Plasmas, 2017, 24, .	1.9	10
75	High-Energy Electron Diffusion by Resonant Interactions with Whistler Mode Hiss. Geophysical Monograph Series, 0, , 281-290.	0.1	9
76	On the Confinement of Ultrarelativistic Electron Remnant Belts to Low Shells. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027469.	2.4	9
77	Chorus and Hiss Scales in the Inner Magnetosphere: Statistics From Highâ€Resolution Filter Bank (FBK) Van Allen Proves Multiâ€Point Measurements. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028998.	2.4	9
78	Statistical analysis of electron lifetimes at GEO: Comparisons with chorusâ€driven losses. Journal of Geophysical Research: Space Physics, 2014, 119, 6356-6366.	2.4	8
79	Highly Oblique Lowerâ€Band Chorus Statistics: Dependencies of Wave Power on Refractive Index and Geomagnetic Activity. Journal of Geophysical Research: Space Physics, 2018, 123, 4767-4784.	2.4	5
80	Electron Flux Enhancements at L = 4.2 Observed by Global Positioning System Satellites: Relationship With Solar Wind and Geomagnetic Activity. Journal of Geophysical Research: Space Physics, 2018, 123, 6189-6206.	2.4	3
81	Dynamical Properties of Peak and Timeâ€Integrated Geomagnetic Events Inferred From Sample Entropy. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027599.	2.4	3
82	Approximate analytical formulation of radial diffusion and whistlerâ€induced losses from a preexisting flux peak in the plasmasphere. Journal of Geophysical Research: Space Physics, 2015, 120, 7191-7208.	2.4	2
83	Wave-particle interactions in the outer radiation belts. Advances in Astronomy and Space Physics, 2015, 5, 68-74.	0.2	1
84	Short Chorus Packets in Radiation Belts: Statistics and Role in Energetic Electron Acceleration. , 2021, , .		0