Shri G Kanekal

List of Publications by Year
in descending order

102 papers	8,035 citations	61984 43 h-index	48315 88 g-index
106 all docs	106 docs citations	106 times ranked	2120 citing authors

#	Article	IF	Citations
1	Science Objectives and Rationale for the Radiation Belt Storm Probes Mission. Space Science Reviews, 2013, 179, 3-27.	8.1	841
2	Rapid local acceleration of relativistic radiation-belt electrons by magnetospheric chorus. Nature, 2013, 504, 411-414.	27.8	608
3	Electron Acceleration in the Heart of the Van Allen Radiation Belts. Science, 2013, 341, 991-994.	12.6	463
4	Science Goals and Overview of the Radiation Belt Storm Probes (RBSP) Energetic Particle, Composition, and Thermal Plasma (ECT) Suite on NASAâ€™s Van Allen Probes Mission. Space Science Reviews, 2013, 179, 311-336.	8.1	463
5	The Relativistic Electron-Proton Telescope (REPT) Instrument on Board the Radiation Belt Storm Probes (RBSP) Spacecraft: Characterization of Earthâ€™s Radiation Belt High-Energy Particle Populations. Space Science Reviews, 2013, 179, 337-381.	8.1	334
6	Outward radial diffusion driven by losses at magnetopause. Journal of Geophysical Research, 2006, 111, .	3.3	328
7	An extreme distortion of the Van Allen belt arising from the â€˜Hallowe'enâ€™ solar storm in 2003. Nature, 2004, 432, 878-881.	27.8	299
8	Multisatellite observations of the outer zone electron variation during the November 3â€“4, 1993, magnetic storm. Journal of Geophysical Research, 1997, 102, 14123-14140.	3.3	274
9	A Long-Lived Relativistic Electron Storage Ring Embedded in Earthâ€™s Outer Van Allen Belt. Science, 2013, 340, 186-190.	12.6	216
10	Source and seed populations for relativistic electrons: Their roles in radiation belt changes. Journal of Geophysical Research: Space Physics, 2015, 120, 7240-7254.	2.4	215
11	Relativistic electron acceleration and decay time scales in the inner and outer radiation belts: SAMPEX. Geophysical Research Letters, 1994, 21, 409-412.	4.0	211
12	Radiation belt electron acceleration by chorus waves during the 17 March 2013 storm. Journal of Geophysical Research: Space Physics, 2014, 119, 4681-4693.	2.4	182
13	An impenetrable barrier to ultrarelativistic electrons in the Van Allen radiation belts. Nature, 2014, 515, 531-534.	27.8	159
14	Acceleration mechanism responsible for the formation of the new radiation belt during the 2003 Halloween solar storm. Geophysical Research Letters, 2006, 33, .	4.0	157
15	Long term measurements of radiation belts by SAMPEX and their variations. Geophysical Research Letters, 2001, 28, 3827-3830.	4.0	154
16	Coronal mass ejections, magnetic clouds, and relativistic magnetospheric electron events: ISTP. Journal of Geophysical Research, 1998, 103, 17279-17291.	3.3	144
17	Relativistic electron loss timescales in the slot region. Journal of Geophysical Research, 2009, 114, .	3.3	137
18	Recurrent geomagnetic storms and relativistic electron enhancements in the outer magnetosphere: ISTP coordinated measurements. Journal of Geophysical Research, 1997, 102, 14141-14148.	3.3	133

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19	Gradual diffusion and punctuated phase space density enhancements of highly relativistic electrons: Van Allen Probes observations. Geophysical Research Letters, 2014, 41, 1351-1358.	4.0	127
20	A strong CME-related magnetic cloud interaction with the Earth's Magnetosphere: ISTP observations of rapid relativistic electron acceleration on May 15, 1997. Geophysical Research Letters, 1998, 25, 2975-2978.	4.0	118
21	Are energetic electrons in the solar wind the source of the outer radiation belt?. Geophysical Research Letters, 1997, 24, 923-926.	4.0	110
22	Highly relativistic radiation belt electron acceleration, transport, and loss: Large solar storm events of March and June 2015. Journal of Geophysical Research: Space Physics, 2016, 121, 6647-6660.	2.4	93
23	Multisatellite measurements of relativistic electrons: Global coherence. Journal of Geophysical Research, 2001, 106, 29721-29732.	3.3	84
24	The Response of Earth's Electron Radiation Belts to Geomagnetic Storms: Statistics From the Van Allen Probes Era Including Effects From Different Storm Drivers. Journal of Geophysical Research: Space Physics, 2019, 124, 1013-1034.	2.4	84
25	Strong electron acceleration in the Earth's magnetosphere. Advances in Space Research, 1998, 21, 609-613.	2.6	83
26	Upper limit on the inner radiation belt MeV electron intensity. Journal of Geophysical Research: Space Physics, 2015, 120, 1215-1228.	2.4	77
27	Radiation belt electron acceleration during the 17 March 2015 geomagnetic storm: Observations and simulations. Journal of Geophysical Research: Space Physics, 2016, 121, 5520-5536.	2.4	77
28	Solar cycle changes, geomagnetic variations, and energetic particle properties in the inner magnetosphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 195-206.	1.6	72
29	Long-term-average, solar cycle, and seasonal response of magnetospheric energetic electrons to the solar wind speed. Journal of Geophysical Research, 2002, 107, SMP 22-1.	3.3	68
30	Lowâ€altitude measurements of 2â€“6 MeV electron trapping lifetimes at 1.5 â‰ L â‰ 2.5. Geophysical Research Letters, 2007, 34, .	4.0	68
31	Prompt acceleration of magnetospheric electrons to ultrarelativistic energies by the 17 March 2015 interplanetary shock. Journal of Geophysical Research: Space Physics, 2016, 121, 7622-7635.	2.4	68
32	Plasmaspheric hiss waves generate a reversed energy spectrum of radiation belt electrons. Nature Physics, 2019, 15, 367-372.	16.7	66
33	First results from CSSWE CubeSat: Characteristics of relativistic electrons in the nearâ€Earth environment during the October 2012 magnetic storms. Journal of Geophysical Research: Space Physics, 2013, 118, 6489-6499.	2.4	65
34	Observations of the impenetrable barrier, the plasmapause, and the VLF bubble during the 17 March 2015 storm. Journal of Geophysical Research: Space Physics, 2016, 121, 5537-5548.	2.4	59
35	Dynamic relationship between the outer radiation belt and the plasmapause during Marchâ€“May 2001. Geophysical Research Letters, 2005, 32, .	4.0	53
36	Peculiar pitch angle distribution of relativistic electrons in the inner radiation belt and slot region. Geophysical Research Letters, 2014, 41, 2250-2257.	4.0	53

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37	Observations of the inner radiation belt: CRAND and trapped solar protons. Journal of Geophysical Research: Space Physics, 2014, 119, 6541-6552.	2.4	50
38	Fast Diffusion of Ultrarelativistic Electrons in the Outer Radiation Belt: 17 March 2015 Storm Event. Geophysical Research Letters, 2018, 45, 10874-10882.	4.0	49
39	Solar wind conditions leading to efficient radiation belt electron acceleration: A superposed epoch analysis. Geophysical Research Letters, 2015, 42, 6906-6915.	4.0	48
40	Investigating the source of nearâ€relativistic and relativistic electrons in Earth's inner radiation belt. Journal of Geophysical Research: Space Physics, 2017, 122, 695-710.	2.4	48
41	Multiyear Measurements of Radiation Belt Electrons: Acceleration, Transport, and Loss. Journal of Geophysical Research: Space Physics, 2019, 124, 2588-2602.	2.4	48
42	Rapid enchancements of relativistic electrons deep in the magnetosphere during the May 15, 1997, magnetic storm. Journal of Geophysical Research, 1999, 104, 4467-4476.	3.3	47
43	On the Effect of Geomagnetic Storms on Relativistic Electrons in the Outer Radiation Belt: Van Allen Probes Observations. Journal of Geophysical Research: Space Physics, 2017, 122, 11,100.	2.4	47
44	Characterizing the Earth's outer Van Allen zone using a radiation belt content index. Space Weather, 2004, 2, n/a-n/a.	3.7	45
45	Magnetospheric response to magnetic cloud (coronal mass ejection) events: Relativistic electron observations from SAMPEX and Polar. Journal of Geophysical Research, 1999, 104, 24885-24894.	3.3	43
46	An Empirical Model of Radiation Belt Electron Pitch Angle Distributions Based On Van Allen Probes Measurements. Journal of Geophysical Research: Space Physics, 2018, 123, 3493-3511.	2.4	41
47	Relationships between precipitating auroral zone electrons and lower thermospheric nitric oxide densities: 1998 - 2000. Journal of Geophysical Research, 2001, 106, 24465-24480.	3.3	38
48	On the relation between radiation belt electrons and solar wind parameters/geomagnetic indices: Dependence on the first adiabatic invariant and L[*]. Journal of Geophysical Research: Space Physics, 2017, 122, 1624-1642.	2.4	38
49	RBSPâ€ECT Combined Spinâ€Averaged Electron Flux Data Product. Journal of Geophysical Research: Space Physics, 2019, 124, 9124-9136.	2.4	34
50	Radiation belt electron dynamics at low L (<4): Van Allen Probes era versus previous two solar cycles. Journal of Geophysical Research: Space Physics, 2017, 122, 5224-5234.	2.4	33
51	Prompt injections of highly relativistic electrons induced by interplanetary shocks: A statistical study of Van Allen Probes observations. Geophysical Research Letters, 2016, 43, 12,317.	4.0	32
52	The Relativistic Electron-Proton Telescope (REPT) Instrument on Board the Radiation Belt Storm Probes (RBSP) Spacecraft: Characterization of Earthâ€™s Radiation Belt High-Energy Particle Populations. , 2012, , 337-381.		31
53	Radiation belt representation of the energetic electron environment: Model and data synthesis using the SalammbÃ´ radiation belt transport code and Los Alamos geosynchronous and GPS energetic particle data. Space Weather, 2005, 3, n/a-n/a.	3.7	27
54	On the Acceleration Mechanism of Ultrarelativistic Electrons in the Center of the Outer Radiation Belt: A Statistical Study. Journal of Geophysical Research: Space Physics, 2019, 124, 8590-8599.	2.4	27

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55	Studies of relativistic electron injection events in 1997 and 1998. Journal of Geophysical Research, 2001, 106, 19157-19168.	3.3	26
56	Outer radiation belt dropout dynamics following the arrival of two interplanetary coronal mass ejections. Geophysical Research Letters, 2016, 43, 978-987.	4.0	26
57	Inward diffusion and loss of radiation belt protons. Journal of Geophysical Research: Space Physics, 2016, 121, 1969-1978.	2.4	26
58	The Acceleration of Ultrarelativistic Electrons During a Small to Moderate Storm of 21 April 2017. Geophysical Research Letters, 2018, 45, 5818-5825.	4.0	25
59	Characterization and Evolution of Radiation Belt Electron Energy Spectra Based on the Van Allen Probes Measurements. Journal of Geophysical Research: Space Physics, 2019, 124, 4217-4232.	2.4	25
60	The Effects of Geomagnetic Storms and Solar Wind Conditions on the Ultrarelativistic Electron Flux Enhancements. Journal of Geophysical Research: Space Physics, 2019, 124, 1948-1965.	2.4	25
61	Artificial Neural Networks for Determining Magnetospheric Conditions. , 2018, , 279-300.		24
62	Relativistic electron events in 2002: Studies of pitch angle isotropization. Journal of Geophysical Research, 2005, 110, .	3.3	23
63	The Relativistic Electron-Proton Telescope (REPT) Investigation: Design, Operational Properties, and Science Highlights. Space Science Reviews, 2021, 217, 1.	8.1	23
64	Van Allen Probes Measurements of Energetic Particle Deep Penetration Into the Low L Region (LÂ<Â4) During the Storm on 8 April 2016. Journal of Geophysical Research: Space Physics, 2017, 122, 12,140.	2.4	22
65	Modeling the Proton Radiation Belt With Van Allen Probes Relativistic Electronâ€Proton Telescope Data. Journal of Geophysical Research: Space Physics, 2018, 123, 685-697.	2.4	22
66	Structure of Earth's outer radiation belt inferred from long-term electron flux dynamics. Geophysical Research Letters, 2003, 30, .	4.0	20
67	Quantifying the Contribution of Microbursts to Global Electron Loss in the Radiation Belts. Journal of Geophysical Research: Space Physics, 2019, 124, 1111-1124.	2.4	20
68	Relativistic electron response to the combined magnetospheric impact of a coronal mass ejection overlapping with a highâ€speed stream: Van Allen Probes observations. Journal of Geophysical Research: Space Physics, 2015, 120, 7629-7641.	2.4	17
69	CIMI simulations with newly developed multiparameter chorus and plasmaspheric hiss wave models. Journal of Geophysical Research: Space Physics, 2017, 122, 9344-9357.	2.4	17
70	Comparison of Van Allen Probes Energetic Electron Data With Corresponding GOESâ€15 Measurements: 2012â€“2018. Journal of Geophysical Research: Space Physics, 2019, 124, 9924-9942.	2.4	16
71	Dynamics of the terrestrial radiation belts: a review of recent results during the VarSITI (Variability) Tj ETQq1 1 0.784314 rgBT /Overlo	3.0	16
72	Variability of the total radiation belt electron content. Journal of Geophysical Research, 2009, 114, .	3.3	14

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73	Contribution of ULF Wave Activity to the Global Recovery of the Outer Radiation Belt During the Passage of a Highâ€Speed Solar Wind Stream Observed in September 2014. Journal of Geophysical Research: Space Physics, 2019, 124, 1660-1678.	2.4	14
74	Variation of Radiation Belt Electron Flux During CMEâ€•and CIRâ€Driven Geomagnetic Storms: Van Allen Probes Observations. Journal of Geophysical Research: Space Physics, 2019, 124, 6524-6540.	2.4	13
75	The MERiT Onboard the CeREs: A Novel Instrument to Study Energetic Particles in the Earth's Radiation Belts. Journal of Geophysical Research: Space Physics, 2019, 124, 5734-5760.	2.4	12
76	Characteristics, Occurrence, and Decay Rates of Remnant Belts Associated With Threeâ€Belt Events in the Earth's Radiation Belts. Geophysical Research Letters, 2018, 45, 12,099.	4.0	11
77	A Framework for Understanding and Quantifying the Loss and Acceleration of Relativistic Electrons in the Outer Radiation Belt During Geomagnetic Storms. Space Weather, 2020, 18, e2020SW002477.	3.7	11
78	RBSPâ€ECT Combined Pitch Angle Resolved Electron Flux Data Product. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028637.	2.4	11
79	Current energetic particle sensors. Journal of Geophysical Research: Space Physics, 2016, 121, 8840-8858.	2.4	9
80	Dynamic Mechanisms Associated With Highâ€Energy Electron Flux Dropout in the Earth's Outer Radiation Belt Under the Influence of a Coronal Mass Ejection Sheath Region. Journal of Geophysical Research: Space Physics, 2021, 126, .	2.4	9
81	On the use of drift echoes to characterize onâ€orbit sensor discrepancies. Journal of Geophysical Research: Space Physics, 2015, 120, 2076-2087.	2.4	8
82	On the cause of two prompt shock-induced relativistic electron depletion events. Journal of Atmospheric and Solar-Terrestrial Physics, 2018, 177, 208-217.	1.6	8
83	On the Contribution of EMIC Waves to the Reconfiguration of the Relativistic Electron Butterfly Pitch Angle Distribution Shape on 2014 September 12â€”A Case Study*. Astrophysical Journal, 2019, 872, 36.	4.5	8
84	The Role of Solar Wind Structures in the Generation of ULF Waves in the Inner Magnetosphere. Solar Physics, 2017, 292, 1.	2.5	7
85	Van Allen Probes Observations of Multiâ€MeV Electron Driftâ€Periodic Flux Oscillations in Earth's Outer Radiation Belt During the March 2017 Event. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029284.	2.4	7
86	Modulation of Jovian electrons at 1 AU during solar cycles 22-23. Geophysical Research Letters, 2003, 30, .	4.0	6
87	Solar Energetic Proton Access to the Nearâ€Equatorial Inner Magnetosphere. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027584.	2.4	5
88	James Van Allen and His Namesake <scp>NASA</scp> Mission. Eos, 2013, 94, 469-470.	0.1	4
89	Proton straggling in thick silicon detectors. Nuclear Instruments & Methods in Physics Research B, 2017, 394, 145-152.	1.4	4
90	Characteristics of Highâ€Energy Proton Responses to Geomagnetic Activities in the Inner Radiation Belt Observed by the RBSP Satellite. Journal of Geophysical Research: Space Physics, 2019, 124, 7581-7591.	2.4	4

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91	Radial Response of Outer Radiation Belt Relativistic Electrons During Enhancement Events at Geostationary Orbit. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027660.	2.4	4
92	Evolution of Pitch Angle Distributions of Relativistic Electrons During Geomagnetic Storms: Van Allen Probes Observations. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028335.	2.4	4
93	Evidence for Energetic Neutral Hydrogen Emission from Solar Particle Events. Astrophysical Journal, 2021, 923, 195.	4.5	4
94	The Role of the Dynamic Plasmapause in Outer Radiation Belt Electron Flux Enhancement. Geophysical Research Letters, 2020, 47, e2020GL086991.	4.0	3
95	Radiation Belt Response to Fast Reverse Shock at Geosynchronous Orbit. Astrophysical Journal, 2021, 910, 154.	4.5	3
96	Multiâ€MeV Electron Dynamics Near the Inner Edge of the Outer Radiation Belt. Geophysical Research Letters, 2021, 48, .	4.0	3
97	Evolution of Pitch Angleâ€Distributed Megaelectron Volt Electrons During Each Phase of the Geomagnetic Storm. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027086.	2.4	2
98	Statistics of Multiâ€MeV Electron Driftâ€Periodic Flux Oscillations Using Van Allen Probes Observations. Geophysical Research Letters, 2022, 49, .	4.0	2
99	Radiation belt responses to the solar events of Octoberâ€"November 2003. Geophysical Monograph Series, 2005, , 251-259.	0.1	1
100	Recent advances in our understanding of the Earth's Radiation Belts. , 2019, , .		1
101	Van Allen Belt Punctures and Their Correlation With Solar Wind, Geomagnetic Activity, and ULF Waves. Journal of Geophysical Research: Space Physics, 2021, 126, .	2.4	1
102	AGILE Instrument: Advanced Energetic Ion Electron Telescope. IEEE Transactions on Nuclear Science, 2022, 69, 811-817.	2.0	0