Viviane Pierrard

List of Publications by Year
in descending order

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113 papers	3,374 citations	159358 30 h-index	161609 54 g-index
120 all docs	120 docs citations	120 times ranked	1838 citing authors

#	Article	IF	Citations
1	Kappa Distributions: Theory and Applications in Space Plasmas. Solar Physics, 2010, 267, 153-174.	1.0	517
2	Ulysses electron distributions fitted with Kappa functions. Geophysical Research Letters, 1997, 24, 1151-1154.	1.5	379
3	Lorentzian ion exosphere model. Journal of Geophysical Research, 1996, 101, 7923-7934.	3.3	217
4	Electron velocity distribution functions from the solar wind to the corona. Journal of Geophysical Research, 1999, 104, 17021-17032.	3.3	158
5	A low altitude trapped proton model for solar minimum conditions based on SAMPEX/PET data. IEEE Transactions on Nuclear Science, 1999, 46, 1475-1480.	1.2	84
6	The Electron Temperature and Anisotropy in the Solar Wind. Comparison of the Core and Halo Populations. Solar Physics, 2016, 291, 2165-2179.	1.0	81
7	Core, Halo and Strahl Electrons in the Solar Wind. Astrophysics and Space Science, 2001, 277, 195-200.	0.5	67
8	Exospheric distributions of minor ions in the solar wind. Journal of Geophysical Research, 2004, 109, .	3.3	62
9	Dual Maxwellian-Kappa modeling of the solar wind electrons: new clues on the temperature of Kappa populations. Astronomy and Astrophysics, 2017, 602, A44.	2.1	59
10	A threeâ€dimensional dynamic kinetic model of the plasmasphere. Journal of Geophysical Research, 2008, 113, .	3.3	58
11	Development of shoulders and plumes in the frame of the interchange instability mechanism for plasmapause formation. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	55
12	Evolution of the Electron Distribution Function inÂtheÂWhistler Wave Turbulence of the Solar Wind. Solar Physics, 2011, 269, 421-438.	1.0	54
13	Recent Progress in Physics-Based Models ofÂtheÂPlasmasphere. Space Science Reviews, 2009, 145, 193-229.	3.7	50
14	The Earthâ€™s Plasmasphere. , 2009, , .		48
15	Self-consistent model of solar wind electrons. Journal of Geophysical Research, 2001, 106, 29305-29312.	3.3	46
16	A kinetic exospheric model of the solar wind with a nonmonotonic potential energy for the protons. Journal of Geophysical Research, 2003, 108, .	3.3	46
17	Influence of the convection electric field models on predicted plasmapause positions during magnetic storms. Journal of Geophysical Research, 2008, 113, .	3.3	46
18	Coronal heating and solar wind acceleration for electrons, protons, and minor ions obtained from kinetic models based on kappa distributions. Journal of Geophysical Research: Space Physics, 2014, 119, 9441-9455.	0.8	46

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19	New model of magnetospheric current-voltage relationship. Journal of Geophysical Research, 1996, 101, 2669-2675.	3.3	40
20	Kinetic Models of Solar and Polar Winds. Astrophysics and Space Science, 2001, 277, 169-180.	0.5	38
21	Augmented Empirical Models of Plasmaspheric Density and Electric Field Using IMAGE and CLUSTER Data. Space Science Reviews, 2009, 145, 231-261.	3.7	36
22	Analysis of plasmaspheric plumes: CLUSTER and IMAGE observations. Annales Geophysicae, 2006, 24, 1737-1758.	0.6	35
23	The 3D model of the plasmasphere coupled to the ionosphere. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	35
24	Links between the plasmapause and the radiation belt boundaries as observed by the instruments CIS, RAPID, and WHISPER onboard Cluster. Journal of Geophysical Research: Space Physics, 2013, 118, 4176-4188.	0.8	35
25	Comparisons between EUV/IMAGE observations and numerical simulations of the plasmapause formation. Annales Geophysicae, 2005, 23, 2635-2646.	0.6	34
26	Kinetic modeling of the polar wind. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 1984-2027.	0.6	34
27	Spatial and temporal characteristics of poloidal waves in the terrestrial plasmasphere: a CLUSTER case study. Annales Geophysicae, 2007, 25, 1011-1024.	0.6	33
28	Multi-instrument observations of the solar eclipse on 20 March 2015 and its effects on the ionosphere over Belgium and Europe. Journal of Space Weather and Space Climate, 2017, 7, A19.	1.1	33
29	Collisionless model of the solar wind in a spiral magnetic field. Geophysical Research Letters, 2001, 28, 223-226.	1.5	32
30	The relationship between plasmapause, solar wind and geomagnetic activity between 2007 and 2011. Annales Geophysicae, 2015, 33, 1271-1283.	0.6	31
31	Comparison between two theoretical mechanisms for the formation of the plasmapause and relevant observations. Geomagnetism and Aeronomy, 2008, 48, 553-570.	0.2	30
32	Spatio-temporal structure of a poloidal AlfvÃ©n wave detected by Cluster adjacent to the dayside plasmapause. Annales Geophysicae, 2008, 26, 1805-1817.	0.6	30
33	The Energetic Particle Telescope (EPT) on Board PROBA-V: Description of a New Science-Class Instrument for Particle Detection in Space. IEEE Transactions on Nuclear Science, 2014, 61, 3667-3681.	1.2	28
34	Multipoint observations of ionic structures in the plasmasphere by CLUSTERâ€"CIS and comparisons with IMAGE-EUV observations and with model simulations. Geophysical Monograph Series, 2005, , 23-53.	0.1	27
35	MLT dependence in the relationship between plasmapause, solar wind, and geomagnetic activity based on CRRES: 1990â€"1991. Journal of Geophysical Research: Space Physics, 2016, 121, 4397-4408.	0.8	27
36	Modeling Space Plasma Dynamics with Anisotropic Kappa Distributions. Thirty Years of Astronomical Discovery With UKIRT, 2012, , 97-107.	0.3	27

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37	A collisional kinetic model of the polar wind. Journal of Geophysical Research, 1998, 103, 11701-11709.	3.3	26
38	Exospheric model of the plasmasphere. Journal of Atmospheric and Solar-Terrestrial Physics, 2001, 63, 1261-1265.	0.6	25
39	Low altitude energetic electron lifetimes after enhanced magnetic activity as deduced from SAC-C and DEMETER data. Annales Geophysicae, 2010, 28, 849-859.	0.6	24
40	Dynamical Simulations of Plasmapause Deformations. Space Science Reviews, 2006, 122, 119-126.	3.7	23
41	Fitting the AE-8 energy spectra with two maxwellian functions. Radiation Measurements, 1996, 26, 333-337.	0.7	22
42	On the Exospheric Approach for the Solar Wind Acceleration. Astrophysics and Space Science, 2001, 277, 181-187.	0.5	22
43	Toward a realistic macroscopic parametrization of space plasmas with regularized Î-distributions. Astronomy and Astrophysics, 2020, 634, A20.	2.1	22
44	SWIFF: Space weather integrated forecasting framework. Journal of Space Weather and Space Climate, 2013, 3, A05.	1.1	21
45	The effects of the big storm events in the first half of 2015 on the radiation belts observed by EPT/PROBA-V. Annales Geophysicae, 2016, 34, 75-84.	0.6	21
46	Observations and Simulations of Dropout Events and Flux Decays in October 2013: Comparing MEO Equatorial With LEO Polar Orbit. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028850.	0.8	21
47	The Effects of the Velocity Filtration Mechanism on the Minor Ions of the Corona. Solar Physics, 2003, 216, 47-58.	1.0	20
48	Evaporation of hydrogen and helium atoms from the atmospheres of Earth and Mars. Planetary and Space Science, 2003, 51, 319-327.	0.9	20
49	Sub-oval proton aurora spots: Mapping relatively to the plasmapause. Journal of Atmospheric and Solar-Terrestrial Physics, 2013, 99, 61-66.	0.6	20
50	Title is missing!. Astrophysics and Space Science, 2001, 277, 427-436.	0.5	18
51	Currentâ€“voltage relationship. Journal of Atmospheric and Solar-Terrestrial Physics, 2007, 69, 2048-2057.	0.6	17
52	Solar Wind Electron Transport: Interplanetary Electric Field and Heat Conduction. Space Science Reviews, 2012, 172, 315-324.	3.7	17
53	The Energetic Particle Telescope: First Results. Space Science Reviews, 2014, 184, 87-106.	3.7	17
54	Evidence of MLT propagation of the plasmapause inferred from THEMIS data. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 161, 55-63.	0.6	14

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55	Characteristics of solar wind suprathermal halo electrons. Astronomy and Astrophysics, 2020, 642, A130.	2.1	14
56	Postmidnight ionospheric troughs in summer at high latitudes. Journal of Geophysical Research: Space Physics, 2016, 121, 12,171.	0.8	13
57	MLT Plasmapause Characteristics: Comparison Between THEMIS Observations and Numerical Simulations. Journal of Geophysical Research: Space Physics, 2018, 123, 2000-2017.	0.8	13
58	Electron Dropout Events and Flux Enhancements Associated With Geomagnetic Storms Observed by PROBAâ€Ⅴ/Energetic Particle Telescope From 2013 to 2019. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028487.	0.8	13
59	Recent Progress in Physics-Based Models ofÂtheÂPlasmasphere. , 2009, , 193-229.		13
60	Observation of Highâ€Energy Electrons Precipitated by NWC Transmitter From PROBAâ€Ⅴ Lowâ€Earth Orbit Satellite. Geophysical Research Letters, 2020, 47, e2020GL089077.	1.5	12
61	Kinetic models for the exospheres of Jupiter and Saturn. Planetary and Space Science, 2009, 57, 1260-1267.	0.9	11
62	Velocity-Space Proton Diffusion in the Solar Wind Turbulence. Solar Physics, 2013, 288, 369-387.	1.0	11
63	Generation of Proton Beams by Non-uniform Solar Wind Turbulence. Solar Physics, 2015, 290, 1231-1241.	1.0	11
64	Formulas for recurrence coefficients of orthogonal polynomials related to Lorentzian-like weights. Journal of Computational and Applied Mathematics, 2008, 219, 431-440.	1.1	10
65	Augmented Empirical Models of Plasmaspheric Density and Electric Field Using IMAGE and CLUSTER Data. , 2009, , 231-261.		10
66	Dynamics of Megaelectron Volt Electrons Observed in the Inner Belt by PROBAâ€Ⅴ/EPT. Journal of Geophysical Research: Space Physics, 2019, 124, 1651-1659.	0.8	10
67	Solar Wind Plasma Particles Organized by the Flow Speed. Solar Physics, 2020, 295, 1.	1.0	10
68	Improving Predictions of the 3D Dynamic Model of the Plasmasphere. Frontiers in Astronomy and Space Sciences, 2021, 8, .	1.1	10
69	Electron Heat Flux Instabilities in the Inner Heliosphere: Radial Distribution and Implication on the Evolution of the Electron Velocity Distribution Function. Astrophysical Journal Letters, 2021, 916, L4.	3.0	10
70	Title is missing!. Astrophysics and Space Science, 2001, 277, 189-193.	0.5	9
71	Contamination in electron observations of the silicon detector on board Cluster/RAPID/IES instrument in Earth's radiation belts and ring current. Space Weather, 2016, 14, 449-462.	1.3	9
72	Modification of Proton Velocity Distributions by AlfvÃ©nic Turbulence in the Solar Wind. Solar Physics, 2013, 288, 355-368.	1.0	8

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73	Isolated Auroral Spots Observed by DMSP/SSUSI. Journal of Geophysical Research: Space Physics, 2019, 124, 8416-8426.	0.8	8
74	Title is missing!. Cosmic Research, 2003, 41, 392-402.	0.2	7
75	A new exospheric model of the solar wind acceleration: the transsonic solutions. AIP Conference Proceedings, 2003, , .	0.3	7
76	The dynamics of the terrestrial radiation belts and its links to the plasmasphere. AIP Conference Proceedings, 2012, , .	0.3	7
77	Interfacing MHD Single Fluid and Kinetic Exospheric Solar Wind Models and Comparing Their Energetics. Solar Physics, 2017, 292, 1.	1.0	7
78	Experimental Study of the Plasmasphere Boundary Layer Using MAGION 5 Data. Journal of Geophysical Research: Space Physics, 2018, 123, 1251-1259.	0.8	7
79	Links of the Plasmapause With Other Boundary Layers of the Magnetosphere: Ionospheric Convection, Radiation Belt Boundaries, Auroral Oval. Frontiers in Astronomy and Space Sciences, 2021, 8, .	1.1	7
80	High-altitude and high-latitude O⁺ and H⁺ outflows: the effect of finite electromagnetic turbulence wavelength. Annales Geophysicae, 2007, 25, 2195-2202.	0.6	6
81	Velocity Distributions and Proton Beam Production in the Solar Wind. AIP Conference Proceedings, 2010, , .	0.3	6
82	Fitting the AP-8 spectra to determine the proton momentum distribution functions in space radiations. Radiation Measurements, 2012, 47, 401-405.	0.7	6
83	Analysis of proton and electron spectra observed by EPT/PROBA-V in the South Atlantic Anomaly. Advances in Space Research, 2017, 60, 796-805.	1.2	6
84	Assessment of the Earthâ€™s Cold Plasmatrough Modeling by Using Van Allen Probes/EMFISIS and Arase/PWE Electron Density Data. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029737.	0.8	6
85	Effects of Wave-Particle Interactions on Double-Hump Distributions of the H + Polar Wind. Astrophysics and Space Science, 2006, 302, 35-41.	0.5	5
86	The transient observation-based particle (TOP) model and its potential application in radiation effects evaluation. Journal of Space Weather and Space Climate, 2013, 3, A03.	1.1	5
87	Coronal Temperature Profiles Obtained from Kinetic Models and from Coronal Brightness Measurements Obtained During Solar Eclipses. Solar Physics, 2014, 289, 183-192.	1.0	5
88	Relationship Between Global Plasmapause Characteristics and Plasmapause Structures in the Frame of Interchange Instability Mechanism. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA026768.	0.8	5
89	The effect of altitude- and velocity-dependent waveâ€“particle interactions on the H+ and O+ outflows in the auroral region. Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 1159-1169.	0.6	4
90	Effects of suprathermal particles in space plasmas. AIP Conference Proceedings, 2012, , .	0.3	4

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91	Kinetic Models of Solar Wind Electrons, Protons and Heavy Ions. , 0, , .		4
92	Electron Distributions inÂSpace Plasmas. , 2017, , 465-479.		4
93	Kinetic Models of Solar and Polar Winds. , 2001, , 169-180.		4
94	Electron velocity distribution functions from the solar wind to the corona. , 1999, , .		3
95	Statistical analysis of SAMPEX PET proton measurements. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 449, 378-382.	0.7	3
96	Implications of Kappa Suprathermal Halo of the Solar Wind Electrons. Frontiers in Astronomy and Space Sciences, 0, 9, .	1.1	3
97	Solar wind kinetic exospheric models with typical coronal holes exobase conditions. AIP Conference Proceedings, 2003, , .	0.3	2
98	Electron Kappa Distributions in the Solar Wind: Cause of the Acceleration or Consequence of the Expansion?. Astrophysics and Space Science Library, 2021, , 39-51.	1.0	2
99	Bursts of kinetic AlfvÃ©n waves and coronal radio emission at 2â€“3 solar radii. , 2015, , .		1
100	Kinetic models for space plasmas: Recent progress for the solar wind and the Earthâ€™s magnetosphere. AIP Conference Proceedings, 2016, , .	0.3	1
101	The detection of ultra-relativistic electrons in low Earth orbit. Journal of Space Weather and Space Climate, 2018, 8, A01.	1.1	1
102	Editorial Honoring the 2018 Reviewers for JGR Space Physics. Journal of Geophysical Research: Space Physics, 2019, 124, 3848-3857.	0.8	1
103	Solar Wind Electron Transport: Interplanetary Electric Field and Heat Conduction. Space Sciences Series of ISSI, 2011, , 315-324.	0.0	1
104	Women in Physics in Belgium. AIP Conference Proceedings, 2005, , .	0.3	0
105	Space weather effects in the inner magnetosphere: Plasmasphere and radiation belts dynamics during geomagnetic storms. , 2015, , .		0
106	Dynamical simulations of the plasmapause and the plasmasphere. , 2017, , .		0
107	Comparison between empirical and physical models of the topside ionospheric-plasmaspheric electron content above Antarctica. , 2019, , .		0
108	Thank You to Our 2019 Reviewers. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028092.	0.8	0

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109	Thank You to Our 2020 Reviewers. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029311.	0.8	0
110	Space weather models for the solar wind and the plasmasphere. , 2021, , .		0
111	Suprathermal Populations and Their Effects in Space Plasmas: Kappa vs. Maxwellian. Astrophysics and Space Science Library, 2021, , 15-38.	1.0	0
112	Thank You to Our 2021 Reviewers. Journal of Geophysical Research: Space Physics, 2022, 127, .	0.8	0
113	Observations of Electron Fluxes in the Radiation Belts with PROBA-V/EPT at Polar Low Earth Orbit and Van Allen Probes/MagEIS at Near Equatorial Elliptical Orbit. , 2022, , .		0