

Enrico Camporeale

List of Publications by Year in descending order

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54
papers

1,585
citations

331670

21
h-index

330143

37
g-index

64
all docs

64
docs citations

64
times ranked

1630
citing authors

#	ARTICLE	IF	CITATIONS
1	The Challenge of Machine Learning in Space Weather: Nowcasting and Forecasting. <i>Space Weather</i> , 2019, 17, 1166-1207.	3.7	208
2	Modeling radiation belt electron dynamics during GEM challenge intervals with the DREAM3D diffusion model. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 6197-6211.	2.4	111
3	CPIC: A Curvilinear Particle-in-Cell Code for Plasma-Material Interaction Studies. <i>IEEE Transactions on Plasma Science</i> , 2013, 41, 3577-3587.	1.3	80
4	Information theoretical approach to discovering solar wind drivers of the outer radiation belt. <i>Journal of Geophysical Research: Space Physics</i> , 2016, 121, 9378-9399.	2.4	79
5	Electron vortex magnetic holes: A nonlinear coherent plasma structure. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	77
6	Turbulence Heating Observer "satellite mission proposal. <i>Journal of Plasma Physics</i> , 2016, 82, .	2.1	60
7	On the velocity space discretization for the Vlasov-Poisson system: Comparison between implicit Hermite spectral and Particle-in-Cell methods. <i>Computer Physics Communications</i> , 2016, 198, 47-58.	7.5	55
8	Multiple-Hour-Ahead Forecast of the Dst Index Using a Combination of Long Short-Term Memory Neural Network and Gaussian Process. <i>Space Weather</i> , 2018, 16, 1882-1896.	3.7	55
9	Classification of Solar Wind With Machine Learning. <i>Journal of Geophysical Research: Space Physics</i> , 2017, 122, 10,910.	2.4	54
10	Electron firehose instability: Kinetic linear theory and two-dimensional particle-in-cell simulations. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	52
11	THE DISSIPATION OF SOLAR WIND TURBULENT FLUCTUATIONS AT ELECTRON SCALES. <i>Astrophysical Journal</i> , 2011, 730, 114.	4.5	51
12	RECONNECTION AND ELECTRON TEMPERATURE ANISOTROPY IN SUB-PROTON SCALE PLASMA TURBULENCE. <i>Astrophysical Journal</i> , 2014, 783, 38.	4.5	44
13	Coherent Structures and Spectral Energy Transfer in Turbulent Plasma: A Space-Filter Approach. <i>Physical Review Letters</i> , 2018, 120, 125101.	7.8	41
14	Model of bifurcated current sheets in the Earth's magnetotail: Equilibrium and stability. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	40
15	Probabilistic forecasting of the disturbance storm time index: An autoregressive Gaussian process approach. <i>Space Weather</i> , 2017, 15, 1004-1019.	3.7	39
16	Hybrid Vlasov-MHD models: Hamiltonian vs. non-Hamiltonian. <i>Plasma Physics and Controlled Fusion</i> , 2014, 56, 095008.	2.1	36
17	On particle movers in cylindrical geometry for Particle-In-Cell simulations. <i>Journal of Computational Physics</i> , 2013, 253, 259-277.	3.8	29
18	New approach for the study of linear Vlasov stability of inhomogeneous systems. <i>Physics of Plasmas</i> , 2006, 13, 092110.	1.9	25

#	ARTICLE	IF	CITATIONS
19	Resonant and nonresonant whistlersâ€particle interaction in the radiation belts. <i>Geophysical Research Letters</i> , 2015, 42, 3114-3121.	4.0	25
20	IMPLICATIONS OF A NON-MODAL LINEAR THEORY FOR THE MARGINAL STABILITY STATE AND THE DISSIPATION OF FLUCTUATIONS IN THE SOLAR WIND. <i>Astrophysical Journal</i> , 2010, 715, 260-270.	4.5	24
21	Neutral Vlasov kinetic theory of magnetized plasmas. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	22
22	Wave-particle interactions with parallel whistler waves: Nonlinear and time-dependent effects revealed by particle-in-cell simulations. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	20
23	Transfer entropy and cumulant-based cost as measures of nonlinear causal relationships in space plasmas: applications to <i>D</i><i>st</i>. <i>Annales Geophysicae</i> , 2018, 36, 945-952.	1.6	20
24	A Grayâ€Box Model for a Probabilistic Estimate of Regional Ground Magnetic Perturbations: Enhancing the NOAA Operational Geospace Model With Machine Learning. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027684.	2.4	20
25	Vlasov simulations of kinetic AlfvÃ©n waves at proton kinetic scales. <i>Physics of Plasmas</i> , 2014, 21, .	1.9	19
26	On the Generation of Probabilistic Forecasts From Deterministic Models. <i>Space Weather</i> , 2019, 17, 455-475.	3.7	19
27	Collisional effects on the numerical recurrence in Vlasov-Poisson simulations. <i>Physics of Plasmas</i> , 2016, 23, .	1.9	17
28	On the propagation of uncertainties in radiation belt simulations. <i>Space Weather</i> , 2016, 14, 982-992.	3.7	15
29	Toward a Next Generation Particle Precipitation Model: Mesoscale Prediction Through Machine Learning (a Case Study and Framework for Progress). <i>Space Weather</i> , 2021, 19, e2020SW002684.	3.7	15
30	On the numerical simulation of particle dynamics in the radiation belt: 1. Implicit and semiâ€implicit schemes. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 3463-3475.	2.4	14
31	ViDA: a Vlasovâ€Darwin solver for plasma physics at electron scales. <i>Journal of Plasma Physics</i> , 2019, 85, .	2.1	13
32	ELECTRON TEMPERATURE ANISOTROPY IN AN EXPANDING PLASMA: PARTICLE-IN-CELL SIMULATIONS. <i>Astrophysical Journal</i> , 2010, 710, 1848-1856.	4.5	12
33	On the numerical simulation of particle dynamics in the radiation belt: 2. Procedure based on the diagonalization of the diffusion tensor. <i>Journal of Geophysical Research: Space Physics</i> , 2013, 118, 3476-3484.	2.4	11
34	Comparison of linear modes in kinetic plasma models. <i>Journal of Plasma Physics</i> , 2017, 83, .	2.1	11
35	Bayesian Inference of Quasiâ€Linear Radial Diffusion Parameters using Van Allen Probes. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, e2019JA027618.	2.4	11
36	New Findings From Explainable SYMâ€H Forecasting Using Gradient Boosting Machines. <i>Space Weather</i> , 2022, 20, .	3.7	11

#	ARTICLE	IF	CITATIONS
37	Space Weather research in the Digital Age and across the full data lifecycle: Introduction to the Topical Issue. <i>Journal of Space Weather and Space Climate</i> , 2021, 11, 50.	3.3	10
38	Verification of SpacePy's radial diffusion radiation belt model. <i>Geoscientific Model Development</i> , 2012, 5, 277-287.	3.6	9
39	Space-filter techniques for quasi-neutral hybrid-kinetic models. <i>Physics of Plasmas</i> , 2020, 27, .	1.9	9
40	Identifying Magnetic Reconnection in 2D Hybrid Vlasov Maxwell Simulations with Convolutional Neural Networks. <i>Astrophysical Journal</i> , 2020, 900, 86.	4.5	9
41	Fourier-Hermite decomposition of the collisional Vlasov-Maxwell system: implications for the velocity-space cascade. <i>Plasma Physics and Controlled Fusion</i> , 2019, 61, 054005.	2.1	8
42	Data-Driven Discovery of Fokker-Planck Equation for the Earth's Radiation Belts Electrons Using Physics-Informed Neural Networks. <i>Journal of Geophysical Research: Space Physics</i> , 2022, 127, .	2.4	8
43	Nonmodal Linear Theory for Space Plasmas. <i>Space Science Reviews</i> , 2012, 172, 397-409.	8.1	7
44	Probabilistic Forecasting of Geomagnetic Indices Using Gaussian Process Models. , 2018, , 237-258.		7
45	Parameter Distributions for the Drag-Based Modeling of CME Propagation. <i>Space Weather</i> , 2022, 20, .	3.7	7
46	Connecting large-scale velocity and temperature bursts with small-scale intermittency in stratified turbulence. <i>Europhysics Letters</i> , 2021, 135, 14001.	2.0	6
47	Reply to comment by J. M. Albert on "On the numerical simulation of particle dynamics in the radiation belt. Part I: Implicit and semi-implicit schemes" and "On the numerical simulation of particle dynamics in the radiation belt. Part II: Procedure based on the diagonalization of the diffusion tensor". <i>Journal of Geophysical Research: Space Physics</i> . 2013, 118, 7765-7767.	2.4	5
48	ML-Helio: An Emerging Community at the Intersection Between Heliophysics and Machine Learning. <i>Journal of Geophysical Research: Space Physics</i> , 2020, 125, .	2.4	5
49	Probabilistic prediction of Dst storms one-day-ahead using Full-Disk SoHO Images. <i>Space Weather</i> , 0, , .	3.7	4
50	Untangling the Solar Wind Drivers of the Radiation Belt: An Information Theoretical Approach. , 2018, , 149-175.		3
51	Machine Learning Methods Applied to the Global Modeling of Event-Driven Pitch Angle Diffusion Coefficients During High Speed Streams. <i>Frontiers in Physics</i> , 2022, 10, .	2.1	3
52	Electron inertia and quasi-neutrality in the Weibel instability. <i>Journal of Plasma Physics</i> , 2017, 83, .	2.1	2
53	ADAPTIVE SELECTION OF SAMPLING POINTS FOR UNCERTAINTY QUANTIFICATION. , 2017, 7, 285-301.		1
54	Ensemble Modeling of Radiation Belt Electron Flux Decay Following a Geomagnetic Storm: Dependence on Key Input Parameters. <i>Space Weather</i> , 0, , .	3.7	1