

Pedro Juan Carpena SÃ¡nchez

List of Publications by Year in descending order

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74
papers

4,487
citations

186265

28
h-index

102487

66
g-index

77
all docs

77
docs citations

77
times ranked

4257
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of trends on detrended fluctuation analysis. <i>Physical Review E</i> , 2001, 64, 011114.	2.1	1,070
2	On the determination of the critical micelle concentration by the pyrene 1:3 ratio method. <i>Journal of Colloid and Interface Science</i> , 2003, 258, 116-122.	9.4	690
3	Problems Associated with the Treatment of Conductivity~Concentration Data in Surfactant Solutions:~ Simulations and Experiments. <i>Langmuir</i> , 2002, 18, 6054-6058.	3.5	293
4	Analysis of symbolic sequences using the Jensen-Shannon divergence. <i>Physical Review E</i> , 2002, 65, 041905.	2.1	227
5	Effect of nonlinear filters on detrended fluctuation analysis. <i>Physical Review E</i> , 2005, 71, 011104.	2.1	215
6	Metal~insulator transition in chains with correlated disorder. <i>Nature</i> , 2002, 418, 955-959.	27.8	192
7	CpGcluster: a distance-based algorithm for CpG-island detection. <i>BMC Bioinformatics</i> , 2006, 7, 446.	2.6	155
8	Finding Borders between Coding and Noncoding DNA Regions by an Entropic Segmentation Method. <i>Physical Review Letters</i> , 2000, 85, 1342-1345.	7.8	115
9	Keyword detection in natural languages and DNA. <i>Europhysics Letters</i> , 2002, 57, 759-764.	2.0	94
10	Isochore chromosome maps of eukaryotic genomes. <i>Gene</i> , 2001, 276, 47-56.	2.2	92
11	Study of statistical correlations in DNA sequences. <i>Gene</i> , 2002, 300, 105-115.	2.2	79
12	IsoFinder: computational prediction of isochores in genome sequences. <i>Nucleic Acids Research</i> , 2004, 32, W287-W292.	14.5	77
13	Losses produced by soiling in the incoming radiation to photovoltaic modules. <i>Progress in Photovoltaics: Research and Applications</i> , 2013, 21, 790-796.	8.1	71
14	Level statistics of words: Finding keywords in literary texts and symbolic sequences. <i>Physical Review E</i> , 2009, 79, 035102.	2.1	65
15	Isochore chromosome maps of the human genome. <i>Gene</i> , 2002, 300, 117-127.	2.2	56
16	Size Effects on Correlation Measures. <i>Journal of Biological Physics</i> , 2005, 31, 121-133.	1.5	56
17	Isochores merit the prefix ~iso~™. <i>Computational Biology and Chemistry</i> , 2003, 27, 5-10.	2.3	45
18	Identifying characteristic scales in the human genome. <i>Physical Review E</i> , 2007, 75, 032903.	2.1	44

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19	The Biased Distribution of Alus in Human Isochores Might Be Driven by Recombination. <i>Journal of Molecular Evolution</i> , 2005, 60, 365-377.	1.8	42
20	Prediction of CpG-island function: CpG clustering vs. sliding-window methods. <i>BMC Genomics</i> , 2010, 11, 327.	2.8	40
21	Magnitude and sign of long-range correlated time series: Decomposition and surrogate signal generation. <i>Physical Review E</i> , 2016, 93, 042201.	2.1	40
22	Study of the human postural control system during quiet standing using detrended fluctuation analysis. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2009, 388, 1857-1866.	2.6	39
23	Comparison of methods for the assessment of nonlinearity in short-term heart rate variability under different physiopathological states. <i>Chaos</i> , 2019, 29, 123114.	2.5	38
24	Improving statistical keyword detection in short texts: Entropic and clustering approaches. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2013, 392, 1481-1492.	2.6	37
25	Metal-insulator transition in random Kronig-Penney superlattices with long-range correlated disorder. <i>Physical Review B</i> , 2006, 74, .	3.2	36
26	New Class of Level Statistics in Correlated Disordered Chains. <i>Physical Review Letters</i> , 2004, 93, 176804.	7.8	35
27	Energy spectra and level statistics of Fibonacci and Thue-Morse chains. <i>Physical Review B</i> , 1995, 51, 12813-12816.	3.2	32
28	Quantifying intrachromosomal GC heterogeneity in prokaryotic genomes. <i>Gene</i> , 2004, 333, 121-133.	2.2	28
29	An analysis of geometrical shapes for PV module glass encapsulation. <i>Solar Energy Materials and Solar Cells</i> , 2008, 92, 323-331.	6.2	28
30	Phase transitions in the first-passage time of scale-invariant correlated processes. <i>Physical Review E</i> , 2012, 85, 011139.	2.1	27
31	Segmentation of time series with long-range fractal correlations. <i>European Physical Journal B</i> , 2012, 85, 1.	1.5	26
32	Correlations in magnitude series to assess nonlinearities: Application to multifractal models and heartbeat fluctuations. <i>Physical Review E</i> , 2017, 96, 032218.	2.1	26
33	Thermodynamics of fractal spectra: Cantor sets and quasiperiodic sequences. <i>Physical Review E</i> , 2000, 61, 2281-2289.	2.1	22
34	Clustering of DNA words and biological function: A proof of principle. <i>Journal of Theoretical Biology</i> , 2012, 297, 127-136.	1.7	22
35	WordCluster: detecting clusters of DNA words and genomic elements. <i>Algorithms for Molecular Biology</i> , 2011, 6, 2.	1.2	21
36	Statistical characterization of the mobility edge of vibrational states in disordered materials. <i>Physical Review B</i> , 1999, 60, 201-205.	3.2	20

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37	High-level organization of isochores into gigantic superstructures in the human genome. <i>Physical Review E</i> , 2011, 83, 031908.	2.1	20
38	Characterizing the human postural control system using detrended fluctuation analysis. <i>Journal of Computational and Applied Mathematics</i> , 2010, 233, 1478-1482.	2.0	18
39	A simple and species-independent coding measure. <i>Gene</i> , 2002, 300, 97-104.	2.2	17
40	NGSmethDB 2017: enhanced methylomes and differential methylation. <i>Nucleic Acids Research</i> , 2017, 45, D97-D103.	14.5	16
41	Velocity measurements through magnetic induction. <i>American Journal of Physics</i> , 1997, 65, 135-140.	0.7	15
42	Finite periodic and quasiperiodic systems in an electric field. <i>Zeitschrift für Physik B-Condensed Matter</i> , 1997, 102, 425-431.	1.1	15
43	Spurious Results of Fluctuation Analysis Techniques in Magnitude and Sign Correlations. <i>Entropy</i> , 2017, 19, 261.	2.2	14
44	Metal-insulator transition in a ternary model with long range correlated disorder. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2007, 2007, P09014-P09014.	2.3	13
45	On the focal point of a lens: beyond the paraxial approximation. <i>European Journal of Physics</i> , 2006, 27, 231-241.	0.6	11
46	Comparison of multifractal and thermodynamical properties of fractal and natural spectra. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2000, 287, 37-48.	2.6	10
47	Probability distribution of intersymbol distances in random symbolic sequences: Applications to improving detection of keywords in texts and of amino acid clustering in proteins. <i>Physical Review E</i> , 2016, 94, 052302.	2.1	10
48	Study of the log-periodic oscillations of the specific heat of Cantor energy spectra. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2005, 358, 299-312.	2.6	8
49	Phylogenetic distribution of large-scale genome patchiness. <i>BMC Evolutionary Biology</i> , 2008, 8, 107.	3.2	8
50	Number of bound states of a Kronig-Penney finite-periodic superlattice. <i>European Physical Journal B</i> , 1999, 8, 635-641.	1.5	7
51	Specific heat of random fractal energy spectra. <i>Physical Review E</i> , 2006, 73, 016124.	2.1	7
52	On the Validity of Detrended Fluctuation Analysis at Short Scales. <i>Entropy</i> , 2022, 24, 61.	2.2	7
53	Electronic spectrum of quantum-wells superlattices in an electric field. <i>Physical Review B</i> , 1997, 56, 14929-14932.	3.2	6
54	Differences in nonlinear heart dynamics during rest and exercise and for different training. <i>Physiological Measurement</i> , 2018, 39, 084008.	2.1	6

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55	Anomalous electric field-induced localization in quasiperiodic systems. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1997, 231, 439-448.	2.1	5
56	Energy dependence of the effective mass in the envelope-function approximation. <i>Physica B: Condensed Matter</i> , 1998, 253, 242-249.	2.7	5
57	On the length of stabilograms: A study performed with detrended fluctuation analysis. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2012, 391, 4933-4942.	2.6	5
58	Comment on "Factorial Moments Analyses Show a Characteristic Length Scale in DNA Sequences". <i>Physical Review Letters</i> , 2002, 88, 219803; discussion 219804.	7.8	4
59	Signal processing and statistical methods in analysis of text and DNA. , 2002, , .		4
60	Transforming Gaussian correlations. Applications to generating long-range power-law correlated time series with arbitrary distribution. <i>Chaos</i> , 2020, 30, 083140.	2.5	4
61	On the Autocorrelation Function of $1/f$ Noises. <i>Mathematics</i> , 2022, 10, 1416.	2.2	4
62	The rolling body paradox: an oscillatory motion approach. <i>European Journal of Physics</i> , 1997, 18, 409-416.	0.6	3
63	Compositional complexity of DNA sequence models. <i>Computer Physics Communications</i> , 1999, 121-122, 136-138.	7.5	3
64	On the circular orbits of a particle sliding on the inside of a generic surface of revolution. <i>European Journal of Physics</i> , 2014, 35, 015025.	0.6	3
65	Connection of the nearest-neighbor spacing distribution and the local box-counting dimension for discrete sets. <i>Physical Review E</i> , 2019, 100, 022205.	2.1	3
66	First-Passage Time Properties of Correlated Time Series with Scale-Invariant Behavior and with Crossovers in the Scaling. <i>Contributions To Statistics</i> , 2016, , 89-102.	0.2	2
67	Easy calculation of magnetic flux. <i>European Journal of Physics</i> , 1998, 19, 325-329.	0.6	1
68	Towards a Deeper Understanding of the Complex Behaviour Observed in the Distribution of Words in Written Texts. <i>Springer Proceedings in Complexity</i> , 2013, , 241-249.	0.3	1
69	Comment on "Confinement in a double barrier structure in the presence of an electric field" by Nimour et al.. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 241, 131-134.	2.1	0
70	Isochores Merit the Prefix 'Iso'. <i>Genome Biology</i> , 2002, 3, preprint0009.1.	9.6	0
71	Electronic Delocalization in Finite One-Dimensional Correlated-Disordered Binary Solids. <i>AIP Conference Proceedings</i> , 2003, , .	0.4	0
72	Corrigendum to "Characterizing the human postural control system using detrended fluctuation analysis" [J. Comp. Appl. Math. 233 (2010) 1478-1482]. <i>Journal of Computational and Applied Mathematics</i> , 2012, 236, 2605.	2.0	0

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73	Generalizing the Mach cone for sources traveling along arbitrary trajectories. European Journal of Physics, 2021, 42, 025009.	0.6	0
74	An example of social interaction: Spatial contagion effect in exams. Physica A: Statistical Mechanics and Its Applications, 2022, , 127666.	2.6	0