Christophe Guyeux

List of Publications by Year
in descending order

148 papers	2,004 citations	361413 20 h-index	315739 38 g-index
166 all docs	166 docs citations	166 times ranked	2480 citing authors

#	Article	IF	Citations
1	Privacy-Preserving Prediction of Victim's Mortality and Their Need for Transportation to Health Facilities. IEEE Transactions on Industrial Informatics, 2022, 18, 5592-5599.	11.3	5
2	Connection between two historical tuberculosis outbreak sites in Japan, Honshu, by a new *ancestral Mycobacterium tuberculosis* L2 sublineage. Epidemiology and Infection, 2022, 150, 1-25.	2.1	7
3	The usefulness of NLP techniques for predicting peaks in firefighter interventions due to rare events. Neural Computing and Applications, 2022, , 1-16.	5.6	1
4	How to Predict Patient Arrival in the Emergency Room. Lecture Notes in Networks and Systems, 2022, , 600-610.	0.7	2
5	Machine Learning for Predicting Firefighters' Interventions Per Type of Mission. , 2022, , .		3
6	An optimal cluster-based routing algorithm for UCBSNs. Internet Technology Letters, 2021, 4, e215.	1.9	1
7	OSIP1 is a self-assembling DUF3129 protein required to protect fungal cells from toxins and stressors. Environmental Microbiology, 2021, 23, 1594-1607.	3.8	3
8	CRISPRbuilder-TB: "CRISPR-builder for tuberculosis" Exhaustive reconstruction of the CRISPR locus in mycobacterium tuberculosis complex using SRA. PLoS Computational Biology, 2021, 17, e1008500.	3.2	12
9	Anomaly-based intrusion detection systems: The requirements, methods, measurements, and datasets. Transactions on Emerging Telecommunications Technologies, 2021, 32, e4240.	3.9	23
10	Preserving Geo-Indistinguishability of the Emergency Scene to Predict Ambulance Response Time. Mathematical and Computational Applications, 2021, 26, 56.	1.3	6
11	Machine learning-based forecasting of firemen ambulances' turnaround time in hospitals, considering the COVID-19 impact. Applied Soft Computing Journal, 2021, 109, 107561.	7.2	11
12	Constructing Higher-Dimensional Digital Chaotic Systems via Loop-State Contraction Algorithm. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 3794-3807.	5.4	8
13	A Critical Review on the Implementation of Static Data Sampling Techniques to Detect Network Attacks. IEEE Access, 2021, 9, 138903-138938.	4.2	4
14	Impact of Insertion Sequences and RNAs on Genomic Inversions in Pseudomonas aeruginosa. Journal of King Saud University - Computer and Information Sciences, 2021, , .	3.9	0
15	Impact of Eigensolvers on Spectral Clustering. , 2021, , .		0
16	Efficient distributed average consensus in wireless sensor networks. Computer Communications, 2020, 150, 115-121.	5.1	11
17	Performance of low level protocols in high traffic wireless body sensor networks. Peer-to-Peer Networking and Applications, 2020, 13, 850-871.	3.9	1
18	Mobility aware and traffic adaptive hybrid MAC protocol for collaborative body sensor networks. International Journal of Sensor Networks, 2020, 32, 182.	0.4	1

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19	Unexpected diversity of CRISPR unveils some evolutionary patterns of repeated sequences in Mycobacterium tuberculosis. BMC Genomics, 2020, 21, 841.	2.8	15
20	Advances in the enumeration of foldable self-avoiding walks. International Journal of Computational Science and Engineering, 2020, 22, 365.	0.5	0
21	Predicting Fire Brigades Operational Breakdowns: A Real Case Study. Mathematics, 2020, 8, 1383.	2.2	14
22	Energy-efficiency and coverage quality management for reliable diagnostics in wireless sensor networks. International Journal of Sensor Networks, 2020, 32, 127.	0.4	4
23	Convergence versus Divergence Behaviors of Asynchronous Iterations, and Their Applications in Concrete Situations. Mathematical and Computational Applications, 2020, 25, 69.	1.3	0
24	Chloroplast genomes of Rubiaceae: Comparative genomics and molecular phylogeny in subfamily Ixoroideae. PLoS ONE, 2020, 15, e0232295.	2.5	18
25	Forecasting the number of firefighter interventions per region with local-differential-privacy-based data. Computers and Security, 2020, 96, 101888.	6.0	18
26	Boosting Methods for Predicting Firemen Interventions. , 2020, , .		3
27	Complex evolutionary history of coffees revealed by full plastid genomes and 28,800 nuclear SNP analyses, with particular emphasis on Coffea canephora (Robusta coffee). Molecular Phylogenetics and Evolution, 2020, 151, 106906.	2.7	13
28	Fault tolerant data transmission reduction method for wireless sensor networks. World Wide Web, 2020, 23, 1197-1216.	4.0	4
29	Toward fast and accurate emergency cases detection in BSNs. IET Wireless Sensor Systems, 2020, 10, 47-60.	1.7	9
30	Firemen Prediction by Using Neural Networks: A Real Case Study. Advances in Intelligent Systems and Computing, 2020, , 541-552.	0.6	6
31	Anonymously forecasting the number and nature of firefighting operations. , 2019, , .		10
32	SpCLUST: Towards a fast and reliable clustering for potentially divergent biological sequences. Computers in Biology and Medicine, 2019, 114, 103439.	7.0	5
33	Efficient Chaotic Encryption Scheme with OFB Mode. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2019, 29, 1950059.	1.7	9
34	Long Short-Term Memory for Predicting Firemen Interventions. , 2019, , .		8
35	Evaluation of chloroplast genome annotation tools and application to analysis of the evolution of coffee species. PLoS ONE, 2019, 14, e0216347.	2.5	31
36	Introducing and Comparing Recent Clustering Methods for Massive Data Management in the Internet of Things. Journal of Sensor and Actuator Networks, 2019, 8, 56.	3.9	13

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37	Major earthquake event prediction using various machine learning algorithms. , 2019, , .		21
38	Ancestral Reconstruction and Investigations of Genomic Recombination on some Pentapetalae Chloroplasts. Journal of Integrative Bioinformatics, 2019, 16, .	1.5	1
39	Reliable diagnostics using wireless sensor networks. Computers in Industry, 2019, 104, 103-115.	9.9	14
40	On the use of chaotic iterations to design keyed hash function. Cluster Computing, 2019, 22, 905-919.	5.0	13
41	Impacts of wireless sensor networks strategies and topologies on prognostics and health management. Journal of Intelligent Manufacturing, 2019, 30, 2129-2155.	7.3	11
42	Efficient Cluster based Routing Protocol for Collaborative Body Sensor Networks. , 2019, , .		1
43	Statistical Analysis and Security Evaluation of Chaotic RC5-CBC Symmetric Key Block Cipher Algorithm. International Journal of Advanced Computer Science and Applications, 2019, 10, .	0.7	1
44	Efficient Online Laplacian Eigenmap Computation for Dimensionality Reduction in Molecular Phylogeny via Optimisation on the Sphere. Lecture Notes in Computer Science, 2019, , 441-452.	1.3	0
45	Average Performance Analysis of the Stochastic Gradient Method for Online PCA. Lecture Notes in Computer Science, 2019, , 231-242.	1.3	1
46	Survey on hardware implementation of random number generators on FPGA: Theory and experimental analyses. Computer Science Review, 2018, 27, 135-153.	15.3	67
47	A clustering package for nucleotide sequences using Laplacian Eigenmaps and Gaussian Mixture Model. Computers in Biology and Medicine, 2018, 93, 66-74.	7.0	10
48	A Hardware and Secure Pseudorandom Generator for Constrained Devices. IEEE Transactions on Industrial Informatics, 2018, 14, 3754-3765.	11.3	45
49	Global emergence of the widespread Pseudomonas aeruginosa ST235 clone. Clinical Microbiology and Infection, 2018, 24, 258-266.	6.0	138
50	CIPRNG: A VLSI Family of Chaotic Iterations Post-Processings for $\mathbb{F}_{2}$ -Linear Pseudorandom Number Generation Based on Zynq MPSoC. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 1628-1641.	5.4	17
51	On the coverage effects in wireless sensor networks based prognostic and health management. International Journal of Sensor Networks, 2018, 28, 125.	0.4	6
52	On the reconstruction of the ancestral bacterial genomes in genus Mycobacterium and Brucella. BMC Systems Biology, 2018, 12, 100.	3.0	5
53	Online Shortest Paths With Confidence Intervals for Routing in a Time Varying Random Network. , 2018, , .		0
54	Efficient Hybrid Emergency Aware MAC Protocol for Wireless Body Sensor Networks. Sensors, 2018, 18, 3572.	3.8	9

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55	Streptomyces Dominate the Soil Under Betula Trees That Have Naturally Colonized a Red Gypsum Landfill. Frontiers in Microbiology, 2018, 9, 1772.	3.5	16
56	Theoretical Study of the One Self-Regulating Gene in the Modified Wagner Model. Mathematics, 2018, 6, 58.	2.2	1
57	Comparison of metaheuristics to measure gene effects on phylogenetic supports and topologies. BMC Bioinformatics, 2018, 19, 218.	2.6	1
58	Collaborative body sensor networks: Taxonomy and open challenges. , 2018, , .		2
59	Efficient cluster-based routing algorithm for body sensor networks. , 2018, , .		6
60	Wireless multimedia sensor network deployment for disparity map calculation. , 2018, , .		1
61	On the collision property of chaotic iterations based post-treatments over cryptographic pseudorandom number generators. , 2018, , .		0
62	Novel order preserving encryption scheme for wireless sensor networks. , 2018, , .		7
63	*panISa: ab initio* detection of insertion sequences in bacterial genomes from short read sequence data. Bioinformatics, 2018, 34, 3795-3800.	4.1	29
64	Higher-Dimensional Digital Chaotic Systems (HDDCS). SpringerBriefs in Applied Sciences and Technology, 2018, , 59-88.	0.4	1
65	On the coverage effects in wireless sensor networks based prognostic and health management. International Journal of Sensor Networks, 2018, 28, 125.	0.4	3
66	An Introduction to Digital Chaotic Systems Updated by Random Iterations. SpringerBriefs in Applied Sciences and Technology, 2018, , 1-10.	0.4	0
67	Chaotic Bitwise Dynamical Systems (CBDS). SpringerBriefs in Applied Sciences and Technology, 2018, , 35-45.	0.4	1
68	Simulation-based estimation of branching models for LTR retrotransposons. Bioinformatics, 2017, 33, 320-326.	4.1	1
69	Random Walk in a N-Cube Without Hamiltonian Cycle to Chaotic Pseudorandom Number Generation: Theoretical and Practical Considerations. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1750014.	1.7	9
70	On the Ability to Reconstruct Ancestral Genomes from Mycobacterium Genus. Lecture Notes in Computer Science, 2017, , 642-658.	1.3	1
71	Design and Evaluation of Chaotic Iterations Based Keyed Hash Function. Lecture Notes in Electrical Engineering, 2017, , 404-414.	0.4	3
72	Efficient high degree polynomial root finding using GPU. Journal of Computational Science, 2017, 18, 46-56.	2.9	5

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73	Systematic investigations of gene effects on both topologies and supports: An Echinococcus illustration. Journal of Bioinformatics and Computational Biology, 2017, 15, 1750019.	0.8	0
74	Efficient and accurate monitoring of the depth information in a Wireless Multimedia Sensor Network based surveillance. , 2017, , .		11
75	Finding optimal finite biological sequences over finite alphabets: The OptiFin toolbox. , 2017, , .		0
76	Conditions to Have a Well-Disordered Dynamics in the CBC Mode of Operation. , 2017, , .		1
77	Relation between Gene Content and Taxonomy in Chloroplasts. International Journal of Bioscience, Biochemistry, Bioinformatics (IJBBB), 2017, 7, 41-50.	0.2	1
78	One Random Jump and One Permutation: Sufficient Conditions to Chaotic, Statistically Faultless, and Large Throughput PRNG for FPGA. , 2017, , .		3
79	On the pinning controllability of complex networks using perturbation theory of extreme singular values. application to synchronisation in power grids. Numerical Algebra, Control and Optimization, 2017, 7, 289-299.	1.6	1
80	Chaos in DNA evolution. International Journal of Biomathematics, 2016, 09, 1650076.	2.9	5
81	A Bregman-proximal point algorithm for robust non-negative matrix factorization with possible missing values and outliers - application to gene expression analysis. BMC Bioinformatics, 2016, 17, 284.	2.6	3
82	Theoretical Design and FPGA-Based Implementation of Higher-Dimensional Digital Chaotic Systems. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 401-412.	5.4	190
83	Quantitative evaluation of chaotic CBC mode of operation. , 2016, , .		3
84	Proving Chaotic Behavior of CBC Mode of Operation. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2016, 26, 1650113.	1.7	3
85	TSIRM: A two-stage iteration with least-squares residual minimization algorithm to solve large sparse linear and nonlinear systems. Journal of Computational Science, 2016, 17, 535-546.	2.9	2
86	On the Topology Effects in Wireless Sensor Networks Based Prognostics and Health Management. , 2016, , .		0
87	Summary of Topological Study of Chaotic CBC Mode of Operation. , 2016, , .		0
88	Investigating low level protocols for Wireless Body Sensor Networks. , 2016, , .		10
89	Dendrochemical assessment of mercury releases from a pond and dredged-sediment landfill impacted by a chlor-alkali plant. Environmental Research, 2016, 148, 122-126.	7.5	33
90	Resiliency in Distributed Sensor Networks for Prognostics and Health Management of the Monitoring Targets. Computer Journal, 2016, 59, 275-284.	2.4	7

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91	Using an Epidemiological Approach to Maximize Data Survival in the Internet of Things. ACM Transactions on Internet Technology, 2016, 16, 1-15.	4.4	111
92	Binary Particle Swarm Optimization Versus Hybrid Genetic Algorithm for Inferring Well Supported Phylogenetic Trees. Lecture Notes in Computer Science, 2016, , 165-179.	1.3	2
93	On the Evaluation of the Privacy Breach in Disassociated Set-valued Datasets. , 2016, , .		4
94	A Second Order Derivatives based Approach for Steganography. , 2016, , .		0
95	FPGA Implementation of F2-Linear Pseudorandom Number Generators based on Zynq MPSoC: A Chaotic Iterations Post Processing Case Study. , 2016, , .		0
96	Taenia biomolecular phylogeny and the impact of mitochondrial genes on this latter. , 2015, , .		0
97	Steganalyzer Performances in Operational Contexts. , 2015, , .		0
98	Fluoroquinolone Resistance Mechanisms and population structure of Enterobacter cloacae non-susceptible to Ertapenem in North-Eastern France. Frontiers in Microbiology, 2015, 6, 1186.	3.5	32
99	Investigating gene expression array with outliers and missing data in bladder cancer. , 2015, , .		1
100	TSIRM: A Two-Stage Iteration with Least-Squares Residual Minimization Algorithm to Solve Large Sparse Linear Systems. , 2015, , .		0
101	Performance Study of Steganalysis Techniques. , 2015, , .		0
102	Dependability of wireless sensor networks for industrial prognostics and health management. Computers in Industry, 2015, 68, 1-15.	9.9	43
103	Efficient and cryptographically secure generation of chaotic pseudorandom numbers on GPU. Journal of Supercomputing, 2015, 71, 3877-3903.	3.6	23
104	STABYLO: steganography with adaptive, Bbs, and binary embedding at low cost. Annales Des Telecommunications/Annals of Telecommunications, 2015, 70, 441-449.	2.5	10
105	Random forests for industrial device functioning diagnostics using wireless sensor networks. , 2015, , .		16
106	Study on a new chaotic bitwise dynamical system and its FPGA implementation. Chinese Physics B, 2015, 24, 060503.	1.4	14
107	Population structure and antimicrobial susceptibility of Pseudomonas aeruginosa from animal infections in France. BMC Veterinary Research, 2015, 11, 9.	1.9	50
108	The study of unfoldable self-avoiding walks â€" Application to protein structure prediction software. Journal of Bioinformatics and Computational Biology, 2015, 13, 1550009.	0.8	4

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109	Hybrid Genetic Algorithm and Lasso Test Approach for Inferring Well Supported Phylogenetic Trees Based on Subsets of Chloroplastic Core Genes. Lecture Notes in Computer Science, 2015, , 83-96.	1.3	5
110	What It Takes to Be a Pseudomonas aeruginosa? The Core Genome of the Opportunistic Pathogen Updated. PLoS ONE, 2015, 10, e0126468.	2.5	91
111	A Complete Security Framework for Wireless Sensor Networks. International Journal of Information Technology and Web Engineering, 2015, 10, 47-74.	1.6	5
112	Relaxing the Hypotheses of Symmetry and Time-Reversibility in Genome Evolutionary Models. British Journal of Mathematics & Computer Science, 2015, 5, 439-455.	0.3	1
113	IS PROTEIN FOLDING PROBLEM REALLY A NP-COMPLETE ONE? FIRST INVESTIGATIONS. Journal of Bioinformatics and Computational Biology, 2014, 12, 1350017.	0.8	25
114	Theoretical Design and Circuit Implementation of Integer Domain Chaotic Systems. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2014, 24, 1450128.	1.7	19
115	Wastewater Treatment Plants Release Large Amounts of Extended-Spectrum Î²-Lactamaseâ€"Producing Escherichia coli Into the Environment. Clinical Infectious Diseases, 2014, 58, 1658-1665.	5.8	143
116	Epidemiological approach for data survivability in unattended wireless sensor networks. Journal of Network and Computer Applications, 2014, 46, 374-383.	9.1	20
117	A Security Framework for Wireless Sensor Networks: Theory and Practice. , 2014, , .		1
118	Suitability of chaotic iterations schemes using XORshift for security applications. Journal of Network and Computer Applications, 2014, 37, 282-292.	9.1	6
119	Noise and Chaos Contributions in Fast Random Bit Sequence Generated From Broadband Optoelectronic Entropy Sources. IEEE Transactions on Circuits and Systems I: Regular Papers, 2014, 61, 888-901.	5.4	26
120	FPGA acceleration of a pseudorandom number generator based on chaotic iterations. Journal of Information Security and Applications, 2014, 19, 78-87.	2.5	17
121	Molecular epidemiology of OXA-48-producing Klebsiella pneumoniae in France. Clinical Microbiology and Infection, 2014, 20, O1121-O1123.	6.0	51
122	Two security layers for hierarchical data aggregation in sensor networks. International Journal of Autonomous and Adaptive Communications Systems, 2014, 7, 239.	0.3	2
123	Gene similarity-based approaches for determining core-genes of chloroplasts. , 2014, , .		5
124	Population Structure of Clinical Pseudomonas aeruginosa from West and Central African Countries. PLoS ONE, 2014, 9, e107008.	2.5	23
125	Finding the Core-Genes of Chloroplasts. International Journal of Bioscience, Biochemistry, Bioinformatics (IJBBB), 2014, 4, 361-368.	0.2	2
126	Computational investigations of folded self-avoiding walks related to protein folding. Computational Biology and Chemistry, 2013, 47, 246-256.	2.3	8

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127	Quality Studies of an Invisible Chaos-Based Watermarking Scheme with Message Extraction. , 2013, , .		1
128	A Cryptographic Approach for Steganography. , 2013, , .		1
129	FPGA Design for Pseudorandom Number Generator Based on Chaotic Iteration used in Information Hiding Application. Applied Mathematics and Information Sciences, 2013, 7, 2175-2188.	0.5	18
130	Neural networks and chaos: Construction, evaluation of chaotic networks, and prediction of chaos with multilayer feedforward networks. Chaos, 2012, 22, 013122.	2.5	6
131	Predicting the Evolution of two Genes in the Yeast Saccharomyces Cerevisiae. Procedia Computer Science, 2012, 11, 4-16.	2.0	3
132	Lyapunov Exponent Evaluation of a Digital Watermarking Scheme Proven to be Secure. , 2012, , .		3
133	Steganography: A Class of Secure and Robust Algorithms. Computer Journal, 2012, 55, 653-666.	2.4	9
134	Protein Folding in the 2D Hydrophobicâ€"Hydrophilic (HP) Square Lattice Model is Chaotic. Cognitive Computation, 2012, 4, 98-114.	5.2	8
135	A Topological Study of Chaotic Iterations Application to Hash Functions. Studies in Computational Intelligence, 2012, , 51-73.	0.9	8
136	Low-Cost Monitoring and Intruders Detection Using Wireless Video Sensor Networks. International Journal of Distributed Sensor Networks, 2012, 8, 929542.	2.2	6
137	Steganography: A Class of Algorithms having Secure Properties. , 2011, , .		6
138	Chaos of protein folding. , 2011, , .		2
139	On the Design of a Family of Ci Pseudo-Random Number Generators. , 2011, , .		0
140	Hash Functions Using Chaotic Iterations. Journal of Algorithms and Computational Technology, 2010, 4, 167-181.	0.7	36
141	Improving random number generators by chaotic iterations application in data hiding. , 2010, , .		7
142	Randomness Quality of CI Chaotic Generators: Applications to Internet Security. , 2010, , .		7
143	A Pseudo Random Numbers Generator Based on Chaotic Iterations: Application to Watermarking. Lecture Notes in Computer Science, 2010, , 202-211.	1.3	12
144	Chaotic Iterations versus Spread-Spectrum: Chaos and Stego Security. , 2010, , .		12

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145	Topological chaos and chaotic iterations application to hash functions. , 2010, , .		23
146	Efficient and Robust Secure Aggregation of Encrypted Data in Sensor Networks. , 2010, , .		14
147	An Improved Watermarking Scheme for Internet Applications. , 2010, , .		5
148	A Novel Pseudo-random Number Generator Based on Discrete Chaotic Iterations. , 2009, , .		8