Luca Oneto

List of Publications by Year
in descending order

141 papers	3,490 citations	236612 25 h-index	161609 54 g-index
149 all docs	149 docs citations	149 times ranked	3146 citing authors

#	Article	IF	Citations
1	Human Activity Recognition on Smartphones Using a Multiclass Hardware-Friendly Support Vector Machine. Lecture Notes in Computer Science, 2012, , 216-223.	1.0	540
2	Transition-Aware Human Activity Recognition Using Smartphones. Neurocomputing, 2016, 171, 754-767.	3.5	502
3	Technical analysis and sentiment embeddings for market trend prediction. Expert Systems With Applications, 2019, 135, 60-70.	4.4	175
4	Big Data Analytics in the Cloud: Spark on Hadoop vs MPI/OpenMP on Beowulf. Procedia Computer Science, 2015, 53, 121-130.	1.2	147
5	Data-driven ship digital twin for estimating the speed loss caused by the marine fouling. Ocean Engineering, 2019, 186, 106063.	1.9	131
6	Vessels fuel consumption forecast and trim optimisation: A data analytics perspective. Ocean Engineering, 2017, 130, 351-370.	1.9	127
7	Condition Based Maintenance in Railway Transportation Systems Based on Big Data Streaming Analysis. Procedia Computer Science, 2015, 53, 437-446.	1.2	98
8	In-Sample and Out-of-Sample Model Selection and Error Estimation for Support Vector Machines. IEEE Transactions on Neural Networks and Learning Systems, 2012, 23, 1390-1406.	7.2	95
9	Statistical Learning Theory and ELM for Big Social Data Analysis. IEEE Computational Intelligence Magazine, 2016, 11, 45-55.	3.4	88
10	Train Delay Prediction Systems: A Big Data Analytics Perspective. Big Data Research, 2018, 11, 54-64.	2.6	85
11	Dynamic Delay Predictions for Large-Scale Railway Networks: Deep and Shallow Extreme Learning Machines Tuned via Thresholdout. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2017, 47, 2754-2767.	5.9	72
12	Model selection for support vector machines: Advantages and disadvantages of the Machine Learning Theory. , 2010, , .		62
13	Condition-Based Maintenance of Naval Propulsion Systems with supervised Data Analysis. Ocean Engineering, 2018, 149, 268-278.	1.9	57
14	Machine learning approaches for improving condition-based maintenance of naval propulsion plants. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2016, 230, 136-153.	0.3	53
15	Condition-based maintenance of naval propulsion systems: Data analysis with minimal feedback. Reliability Engineering and System Safety, 2018, 177, 12-23.	5.1	50
16	Determining the most influential human factors in maritime accidents: A data-driven approach. Ocean Engineering, 2020, 211, 107588.	1.9	50
17	Human Activity Recognition on Smartphones with Awareness of Basic Activities and Postural Transitions. Lecture Notes in Computer Science, 2014, , 177-184.	1.0	45
18	Tikhonov, Ivanov and Morozov regularization for support vector machine learning. Machine Learning, 2016, 103, 103-136.	3.4	44

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19	Fairness in Machine Learning. Studies in Computational Intelligence, 2020, , 155-196.	0.7	42
20	A Learning Analytics Approach to Correlate the Academic Achievements of Students with Interaction Data from an Educational Simulator. Lecture Notes in Computer Science, 2015, , 352-366.	1.0	37
21	Taking Advantage of Multitask Learning for Fair Classification. , 2019, , .		32
22	Fully Empirical and Data-Dependent Stability-Based Bounds. IEEE Transactions on Cybernetics, 2015, 45, 1913-1926.	6.2	29
23	Model Selection and Error Estimation in a Nutshell. Modeling and Optimization in Science and Technologies, 2020, , .	0.7	28
24	Data-Driven Photovoltaic Power Production Nowcasting and Forecasting for Polygeneration Microgrids. IEEE Systems Journal, 2018, 12, 2842-2853.	2.9	27
25	Unsupervised Deep Learning for Induction Motor Bearings Monitoring. Data-Enabled Discovery and Applications, 2019, 3, 1.	1.2	27
26	Local Rademacher Complexity: Sharper risk bounds with and without unlabeled samples. Neural Networks, 2015, 65, 115-125.	3.3	25
27	Advanced Analytics for Train Delay Prediction Systems by Including Exogenous Weather Data. , 2016, , .		25
28	A novelty detection approach to diagnosing hull and propeller fouling. Ocean Engineering, 2019, 176, 65-73.	1.9	25
29	Predicting the cavitating marine propeller noise at design stage: A deep learning based approach. Ocean Engineering, 2020, 209, 107481.	1.9	24
30	Marine dual fuel engines monitoring in the wild through weakly supervised data analytics. Engineering Applications of Artificial Intelligence, 2021, 100, 104179.	4.3	23
31	In-sample model selection for Support Vector Machines. , 2011, , .		20
32	Selecting the hypothesis space for improving the generalization ability of Support Vector Machines. , 2011, , .		20
33	A Deep Connection Between the Vapnikâ€“Chervonenkis Entropy and the Rademacher Complexity. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 2202-2211.	7.2	20
34	Training Computationally Efficient Smartphoneâ€“Based Human Activity Recognition Models. Lecture Notes in Computer Science, 2013, , 426-433.	1.0	19
35	In-sample Model Selection for Trimmed Hinge Loss Support Vector Machine. Neural Processing Letters, 2012, 36, 275-283.	2.0	17
36	Global Rademacher Complexity Bounds: From Slow to Fast Convergence Rates. Neural Processing Letters, 2016, 43, 567-602.	2.0	17

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37	Differential privacy and generalization: Sharper bounds with applications. Pattern Recognition Letters, 2017, 89, 31-38.	2.6	17
38	Prescriptive Maintenance of Railway Infrastructure: From Data Analytics to Decision Support. , 2019, , .		17
39	Low-Resource Footprint, Data-Driven Malware Detection on Android. IEEE Transactions on Sustainable Computing, 2020, 5, 213-222.	2.2	17
40	PAC-bayesian analysis of distribution dependent priors: Tighter risk bounds and stability analysis. Pattern Recognition Letters, 2016, 80, 200-207.	2.6	16
41	Semi-supervised Learning for Affective Common-Sense Reasoning. Cognitive Computation, 2017, 9, 18-42.	3.6	16
42	An improved analysis of the Rademacher data-dependent bound using its self bounding property. Neural Networks, 2013, 44, 107-111.	3.3	15
43	Model selection and error estimation without the agonizing pain. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2018, 8, e1252.	4.6	15
44	Mining Big Data with Random Forests. Cognitive Computation, 2019, 11, 294-316.	3.6	15
45	A dynamic, interpretable, and robust hybrid data analytics system for train movements in large-scale railway networks. International Journal of Data Science and Analytics, 2020, 9, 95-111.	2.4	15
46	Learning Resource-Aware Classifiers for Mobile Devices: From Regularization to Energy Efficiency. Neurocomputing, 2015, 169, 225-235.	3.5	14
47	Identifying the Determinants of Innovation Capability With Machine Learning and Patents. IEEE Transactions on Engineering Management, 2022, 69, 2144-2154.	2.4	14
48	A local Vapnikâ€“Chervonenkis complexity. Neural Networks, 2016, 82, 62-75.	3.3	13
49	Can machine learning explain human learning?. Neurocomputing, 2016, 192, 14-28.	3.5	13
50	Data analytics and clinical feature ranking of medical records of patients with sepsis. BioData Mining, 2021, 14, 12.	2.2	13
51	Deep fair models for complex data: Graphs labeling and explainable face recognition. Neurocomputing, 2022, 470, 318-334.	3.5	13
52	Ship efficiency forecast based on sensors data collection: Improving numerical models through data analytics. , 2015, , .		12
53	Unintrusive Monitoring of Induction Motors Bearings via Deep Learning on Stator Currents. Procedia Computer Science, 2018, 144, 42-51.	1.2	12
54	Understanding Violin Playersâ€™ Skill Level Based on Motion Capture: a Data-Driven Perspective. Cognitive Computation, 2020, 12, 1356-1369.	3.6	12

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55	Unlabeled patterns to tighten Rademacher complexity error bounds for kernel classifiers. Pattern Recognition Letters, 2014, 37, 210-219.	2.6	11
56	Support vector machines and strictly positive definite kernel: The regularization hyperparameter is more important than the kernel hyperparameters. , 2015, , .		11
57	SLT-Based ELM for Big Social Data Analysis. Cognitive Computation, 2017, 9, 259-274.	3.6	11
58	Ensemble of Technical Analysis and Machine Learning for Market Trend Prediction. , 2018, , .		11
59	General Fair Empirical Risk Minimization. , 2020, , .		11
60	Physical, data-driven and hybrid approaches to model engine exhaust gas temperatures in operational conditions. Ships and Offshore Structures, 2022, 17, 1360-1381.	0.9	11
61	Vessels Fuel Consumption: A Data Analytics Perspective to Sustainability. Studies in Fuzziness and Soft Computing, 2018, , 11-48.	0.6	11
62	Towards learning trustworthily, automatically, and with guarantees on graphs: An overview. Neurocomputing, 2022, 493, 217-243.	3.5	11
63	Large-Scale Railway Networks Train Movements: A Dynamic, Interpretable, and Robust Hybrid Data Analytics System. , 2018, , .		10
64	Optimizing Fuel Consumption in Thrust Allocation for Marine Dynamic Positioning Systems. IEEE Transactions on Automation Science and Engineering, 2022, 19, 122-142.	3.4	10
65	Computationally aware estimation of ultimate strength reduction of stiffened panels caused by welding residual stress: From finite element to data-driven methods. Engineering Structures, 2022, 264, 114423.	2.6	10
66	Machine learning for wear forecasting of naval assets for condition-based maintenance applications. , 2015, , .		9
67	Measuring the expressivity of graph kernels through Statistical Learning Theory. Neurocomputing, 2017, 268, 4-16.	3.5	9
68	Constraint-Aware Data Analysis on Mobile Devices. , 2017, , 127-149.		9
69	Investigating Timing and Impact of News on the Stock Market. , 2018, , .		9
70	Ensemble Application of Transfer Learning and Sample Weighting for Stock Market Prediction. , 2019, , .		9
71	Computational intelligence identifies alkaline phosphatase (ALP), alpha-fetoprotein (AFP), and hemoglobin levels as most predictive survival factors for hepatocellular carcinoma. Health Informatics Journal, 2021, 27, 146045822098420.	1.1	9
72	An Enhanced Random Forests Approach to Predict Heart Failure From Small Imbalanced Gene Expression Data. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2021, 18, 2759-2765.	1.9	9

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73	A Machine Learning Analysis of Health Records of Patients With Chronic Kidney Disease at Risk of Cardiovascular Disease. IEEE Access, 2021, 9, 165132-165144.	2.6	9
74	Quantum computing and supervised machine learning. , 2017, , 33-83.		8
75	Model scale cavitation noise spectra prediction: Combining physical knowledge with data science. Ocean Engineering, 2019, 178, 185-203.	1.9	8
76	Towards Online Discovery of Data-Aware Declarative Process Models from Event Streams. , 2020, , .		8
77	Toward Learning Trustworthily from Data Combining Privacy, Fairness, and Explainability: An Application to Face Recognition. Entropy, 2021, 23, 1047.	1.1	8
78	Numerical methods for monitoring and evaluating the biofouling state and effects on vesselsâ€™ hull and propeller performance: A review. Ocean Engineering, 2022, 251, 110883.	1.9	8
79	Learning With Kernels: A Local Rademacher Complexity-Based Analysis With Application to Graph Kernels. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 4660-4671.	7.2	7
80	A support vector machine classifier from a bit-constrained, sparse and localized hypothesis space. , 2013, , .		5
81	Delay Prediction System for Large-Scale Railway Networks Based on Big Data Analytics. Advances in Intelligent Systems and Computing, 2017, , 139-150.	0.5	5
82	Randomized learning: Generalization performance of old and new theoretically grounded algorithms. Neurocomputing, 2018, 298, 21-33.	3.5	5
83	Digital twins of the mooring line tension for floating offshore wind turbines to improve monitoring, lifespan, and safety. Journal of Ocean Engineering and Marine Energy, 2022, 8, 1-16.	0.9	5
84	Vessel monitoring and design in industry 4.0: A data driven perspective. , 2016, , .		4
85	Marine Safety and Data Analytics: Vessel Crash Stop Maneuvering Performance Prediction. Lecture Notes in Computer Science, 2017, , 385-393.	1.0	4
86	Multilayer Graph Node Kernels: Stacking While Maintaining Convexity. Neural Processing Letters, 2018, 48, 649-667.	2.0	4
87	Crash Stop Maneuvering Performance Prediction: a Data-Driven Solution for Safety and Collision Avoidance. Data-Enabled Discovery and Applications, 2018, 2, 1.	1.2	4
88	Simple continuous optimal regions of the space of data. Neurocomputing, 2019, 349, 91-104.	3.5	4
89	Local Rademacher Complexity Machine. Neurocomputing, 2019, 342, 24-32.	3.5	4
90	Advances in artificial neural networks, machine learning and computational intelligence. Neurocomputing, 2019, 342, 1-5.	3.5	4

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91	Innovation Capability of Firms: A Big Data Approach with Patents. Proceedings of the International Neural Networks Society, 2020, , 169-179.	0.6	4
92	A Learning Analytics Methodology to Profile Students Behavior and Explore Interactions with a Digital Electronics Simulator. Lecture Notes in Computer Science, 2014, , 596-597.	1.0	4
93	Introduction to Digital Systems Design. , 2019, , .		4
94	Keep it Simple: Handcrafting Feature and Tuning Random Forests and XGBoost to face the Affective Movement Recognition Challenge 2021. , 2021, , .		4
95	Nested Sequential Minimal Optimization for Support Vector Machines. Lecture Notes in Computer Science, 2012, , 156-163.	1.0	3
96	Performance assessment and uncertainty quantification of predictive models for smart manufacturing systems. , 2015, , .		3
97	Learning Hardware-Friendly Classifiers Through Algorithmic Stability. Transactions on Embedded Computing Systems, 2016, 15, 1-29.	2.1	3
98	ReForeSt: Random Forests in Apache Spark. Lecture Notes in Computer Science, 2017, , 331-339.	1.0	3
99	Randomized learning and generalization of fair and private classifiers: From PAC-Bayes to stability and differential privacy. Neurocomputing, 2020, 416, 231-243.	3.5	3
100	Learning fair models and representations. Intelligenza Artificiale, 2020, 14, 151-178.	1.0	3
101	Accuracy and Intrusiveness in Data-Driven Violin Players Skill Levels Prediction: MOCAP Against MYO Against KINECT. Lecture Notes in Computer Science, 2021, , 367-379.	1.0	3
102	Communication platform concept for virtual testing of novel applications for railway traffic management systems. Transportation Research Procedia, 2022, 62, 832-839.	0.8	3
103	The benefits of adversarial defense in generalization. Neurocomputing, 2022, 505, 125-141.	3.5	3
104	Advances in artificial neural networks, machine learning and computational intelligence. Neurocomputing, 2020, 416, 172-176.	3.5	2
105	Big Data Analytics for Train Delay Prediction. Advances in Civil and Industrial Engineering Book Series, 2018, , 320-348.	0.2	2
106	Digital Twin of the Mooring Line Tension for Floating Offshore Wind Turbines. , 2021, , .		2
107	Physical andÂData-Driven Models Hybridisation forÂModelling theÂDynamic State ofÂaÂFour-Stroke Marine Diesel Engine. Energy, Environment, and Sustainability, 2022, , 145-193.	0.6	2
108	Rademacher Complexity and Structural Risk Minimization: An Application to Human Gene Expression Datasets. Lecture Notes in Computer Science, 2012, , 491-498.	1.0	1

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109	Some results about the Vapnik-Chervonenkis entropy and the rademacher complexity. , 2013, , .		1
110	Smartphone battery saving by bit-based hypothesis spaces and local Rademacher Complexities. , 2014, , .		1
111	Shrinkage learning to improve SVM with hints. , 2015, , .		1
112	Crack random forest for arbitrary large datasets. , 2017, , .		1
113	Deep graph node kernels: A convex approach. , 2017, , .		1
114	Hybrid Model for Cavitation Noise Spectra Prediction. , 2019, , .		1
115	Improving Railway Maintenance Actions with Big Data and Distributed Ledger Technologies. Proceedings of the International Neural Networks Society, 2020, , 120-125.	0.6	1
116	Train Overtaking Prediction in Railway Networks: A Big Data Perspective. Proceedings of the International Neural Networks Society, 2020, , 142-151.	0.6	1
117	Deep Learning for Cavitating Marine Propeller Noise Prediction at Design Stage. , 2020, , .		1
118	A Novel Procedure for Training L1-L2 Support Vector Machine Classifiers. Lecture Notes in Computer Science, 2013, , 434-441.	1.0	1
119	Natural language processing for aviation safety: extracting knowledge from publicly-available loss of separation reports. Open Research Europe, 0, 1, 110.	2.0	1
120	Out-of-Sample Error Estimation: The Blessing of High Dimensionality. , 2014, , .		0
121	Fast convergence of extended Rademacher Complexity bounds. , 2015, , .		0
122	Sentic Computing for Social Network Analysis. , 2017, , 71-90.		0
123	Introduzione al Progetto di Sistemi a Microprocessore. , 2021, , .		0
124	An Efficient Hybrid Planning Framework for In-Station Train Dispatching. Lecture Notes in Computer Science, 2021, , 168-182.	1.0	0
125	Distribution-Dependent Weighted Union Bound. Entropy, 2021, 23, 101.	1.1	0
126	Learn and Visually Explain Deep Fair Models: an Application to Face Recognition. , 2021, , .		0

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127	Natural language processing for aviation safety: extracting knowledge from publicly-available loss of separation reports. Open Research Europe, 0, 1, 110.	2.0	0
128	Learning Hardware Friendly Classifiers Through Algorithmic Risk Minimization. Smart Innovation, Systems and Technologies, 2016, , 403-413.	0.5	0
129	Introduzione al Progetto di Sistemi Digitali. , 2018, , .		0
130	Visual Analytics for Supporting Conflict Resolution in Large Railway Networks. Proceedings of the International Neural Networks Society, 2020, , 206-215.	0.6	0
131	Restoration Time Prediction in Large Scale Railway Networks: Big Data and Interpretability. Proceedings of the International Neural Networks Society, 2020, , 136-141.	0.6	0
132	Algorithmic Stability Theory. Modeling and Optimization in Science and Technologies, 2020, , 65-74.	0.7	0
133	Resampling Methods. Modeling and Optimization in Science and Technologies, 2020, , 25-31.	0.7	0
134	The â€œFive Wâ€•of MS and EE. Modeling and Optimization in Science and Technologies, 2020, , 5-11.	0.7	0
135	Complexity-Based Methods. Modeling and Optimization in Science and Technologies, 2020, , 33-57.	0.7	0
136	PAC-Bayes Theory. Modeling and Optimization in Science and Technologies, 2020, , 75-86.	0.7	0
137	Compression Bound. Modeling and Optimization in Science and Technologies, 2020, , 59-63.	0.7	0
138	Conclusions and Further Readings. Modeling and Optimization in Science and Technologies, 2020, , 99-100.	0.7	0
139	Lâ€™interfacciamento di dispositivi. , 2021, , 323-440.		0
140	Sistemi a Microprocessore Su FPGA. , 2021, , 441-555.		0
141	Computational prediction of underwater radiated noise of cavitating marine propellers: On the accuracy of semi-empirical models. Ocean Engineering, 2022, 259, 111477.	1.9	0