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	Identifying the Determinants of Innovation Capability With Machine Learning and Patents. IEEE Transactions on Engineering Management, 2022, 69, 2144-2154.	2.4	14
2	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
3	Deep fair models for complex data: Graphs labeling and explainable face recognition. Neurocomputing, 2022, 470, 318-334.	3.5	13
4	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
5	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
6	Communication platform concept for virtual testing of novel applications for railway traffic management systems. Transportation Research Procedia, 2022, 62, 832-839.	0.8	3
7	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
8	Physical andÂData-Driven Models Hybridisation forÂModelling theÂDynamic State ofÂaÂFour-Stroke Marine Diesel Engine. Energy, Environment, and Sustainability, 2022, , 145-193.	0.6	2
9	Towards learning trustworthily, automatically, and with guarantees on graphs: An overview. Neurocomputing, 2022, 493, 217-243.	3.5	11
10	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
11	The benefits of adversarial defense in generalization. Neurocomputing, 2022, 505, 125-141.	3.5	3
12	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
13	Introduzione al Progetto di Sistemi a Microprocessore. , 2021, , .		0
14	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
15	An Efficient Hybrid Planning Framework for In-Station Train Dispatching. Lecture Notes in Computer Science, 2021, , 168-182.	1.0	0
16	Distribution-Dependent Weighted Union Bound. Entropy, 2021, 23, 101.	1.1	0
17	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
18	Data analytics and clinical feature ranking of medical records of patients with sepsis. BioData Mining, 2021, 14, 12.	2.2	13

#	Article	IF	Citations
19	Marine dual fuel engines monitoring in the wild through weakly supervised data analytics. Engineering Applications of Artificial Intelligence, 2021, 100, 104179.	4.3	23
20	Learn and Visually Explain Deep Fair Models: an Application to Face Recognition. , 2021, , .		0
21	Toward Learning Trustworthily from Data Combining Privacy, Fairness, and Explainability: An Application to Face Recognition. Entropy, 2021, 23, 1047.	1.1	8
22	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
23	Lâ€™interfacciamento di dispositivi. , 2021, , 323-440.		0
24	Sistemi a Microprocessore Su FPGA. , 2021, , 441-555.		0
25	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
26	Keep it Simple: Handcrafting Feature and Tuning Random Forests and XGBoost to face the Affective Movement Recognition Challenge 2021. , 2021, , .		4
27	Digital Twin of the Mooring Line Tension for Floating Offshore Wind Turbines. , 2021, , .		2
28	Low-Resource Footprint, Data-Driven Malware Detection on Android. IEEE Transactions on Sustainable Computing, 2020, 5, 213-222.	2.2	17
29	Improving Railway Maintenance Actions with Big Data and Distributed Ledger Technologies. Proceedings of the International Neural Networks Society, 2020, , 120-125.	0.6	1
30	Innovation Capability of Firms: A Big Data Approach with Patents. Proceedings of the International Neural Networks Society, 2020, , 169-179.	0.6	4
31	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
32	Train Overtaking Prediction in Railway Networks: A Big Data Perspective. Proceedings of the International Neural Networks Society, 2020, , 142-151.	0.6	1
33	Model Selection and Error Estimation in a Nutshell. Modeling and Optimization in Science and Technologies, 2020, , .	0.7	28
34	Understanding Violin Playersâ€™ Skill Level Based on Motion Capture: a Data-Driven Perspective. Cognitive Computation, 2020, 12, 1356-1369.	3.6	12
35	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
36	Learning fair models and representations. Intelligenza Artificiale, 2020, 14, 151-178.	1.0	3

#	Article	IF	Citations
37	General Fair Empirical Risk Minimization. , 2020, , .		11
38	Deep Learning for Cavitating Marine Propeller Noise Prediction at Design Stage. , 2020, , .		1
39	Towards Online Discovery of Data-Aware Declarative Process Models from Event Streams. , 2020, , .		8
40	Determining the most influential human factors in maritime accidents: A data-driven approach. Ocean Engineering, 2020, 211, 107588.	1.9	50
41	Advances in artificial neural networks, machine learning and computational intelligence. Neurocomputing, 2020, 416, 172-176.	3.5	2
42	Fairness in Machine Learning. Studies in Computational Intelligence, 2020, , 155-196.	0.7	42
43	Predicting the cavitating marine propeller noise at design stage: A deep learning based approach. Ocean Engineering, 2020, 209, 107481.	1.9	24
44	Visual Analytics for Supporting Conflict Resolution in Large Railway Networks. Proceedings of the International Neural Networks Society, 2020, , 206-215.	0.6	0
45	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
46	Algorithmic Stability Theory. Modeling and Optimization in Science and Technologies, 2020, , 65-74.	0.7	0
47	Resampling Methods. Modeling and Optimization in Science and Technologies, 2020, , 25-31.	0.7	0
48	The â€œFive Wâ€•of MS and EE. Modeling and Optimization in Science and Technologies, 2020, , 5-11.	0.7	0
49	Complexity-Based Methods. Modeling and Optimization in Science and Technologies, 2020, , 33-57.	0.7	0
50	PAC-Bayes Theory. Modeling and Optimization in Science and Technologies, 2020, , 75-86.	0.7	0
51	Compression Bound. Modeling and Optimization in Science and Technologies, 2020, , 59-63.	0.7	0
52	Conclusions and Further Readings. Modeling and Optimization in Science and Technologies, 2020, , 99-100.	0.7	0
53	Ensemble Application of Transfer Learning and Sample Weighting for Stock Market Prediction. , 2019, , .		9
54	Taking Advantage of Multitask Learning for Fair Classification. , 2019, , .		32

#	Article	IF	Citations
55	Data-driven ship digital twin for estimating the speed loss caused by the marine fouling. Ocean Engineering, 2019, 186, 106063.	1.9	131
56	Technical analysis and sentiment embeddings for market trend prediction. Expert Systems With Applications, 2019, 135, 60-70.	4.4	175
57	Simple continuous optimal regions of the space of data. Neurocomputing, 2019, 349, 91-104.	3.5	4
58	A novelty detection approach to diagnosing hull and propeller fouling. Ocean Engineering, 2019, 176, 65-73.	1.9	25
59	Model scale cavitation noise spectra prediction: Combining physical knowledge with data science. Ocean Engineering, 2019, 178, 185-203.	1.9	8
60	Local Rademacher Complexity Machine. Neurocomputing, 2019, 342, 24-32.	3.5	4
61	Advances in artificial neural networks, machine learning and computational intelligence. Neurocomputing, 2019, 342, 1-5.	3.5	4
62	Prescriptive Maintenance of Railway Infrastructure: From Data Analytics to Decision Support. , 2019, , .		17
63	Hybrid Model for Cavitation Noise Spectra Prediction. , 2019, , .		1
64	Mining Big Data with Random Forests. Cognitive Computation, 2019, 11, 294-316.	3.6	15
65	Unsupervised Deep Learning for Induction Motor Bearings Monitoring. Data-Enabled Discovery and Applications, 2019, 3, 1.	1.2	27
66	Introduction to Digital Systems Design. , 2019, , .		4
67	Randomized learning: Generalization performance of old and new theoretically grounded algorithms. Neurocomputing, 2018, 298, 21-33.	3.5	5
68	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
69	Condition-Based Maintenance of Naval Propulsion Systems with supervised Data Analysis. Ocean Engineering, 2018, 149, 268-278.	1.9	57
70	Condition-based maintenance of naval propulsion systems: Data analysis with minimal feedback. Reliability Engineering and System Safety, 2018, 177, 12-23.	5.1	50
71	Multilayer Graph Node Kernels: Stacking While Maintaining Convexity. Neural Processing Letters, 2018, 48, 649-667.	2.0	4
72	Data-Driven Photovoltaic Power Production Nowcasting and Forecasting for Polygeneration Microgrids. IEEE Systems Journal, 2018, 12, 2842-2853.	2.9	27

#	Article	IF	Citations
73	Train Delay Prediction Systems: A Big Data Analytics Perspective. Big Data Research, 2018, 11, 54-64.	2.6	85
74	Large-Scale Railway Networks Train Movements: A Dynamic, Interpretable, and Robust Hybrid Data Analytics System. , 2018, , .		10
75	Investigating Timing and Impact of News on the Stock Market. , 2018, , .		9
76	Ensemble of Technical Analysis and Machine Learning for Market Trend Prediction. , 2018, , .		11
77	Unintrusive Monitoring of Induction Motors Bearings via Deep Learning on Stator Currents. Procedia Computer Science, 2018, 144, 42-51.	1.2	12
78	Model selection and error estimation without the agonizing pain. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2018, 8, e1252.	4.6	15
79	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
80	Vessels Fuel Consumption: A Data Analytics Perspective to Sustainability. Studies in Fuzziness and Soft Computing, 2018, , 11-48.	0.6	11
81	Big Data Analytics for Train Delay Prediction. Advances in Civil and Industrial Engineering Book Series, 2018, , 320-348.	0.2	2
82	Introduzione al Progetto di Sistemi Digitali. , 2018, , .		0
83	Differential privacy and generalization: Sharper bounds with applications. Pattern Recognition Letters, 2017, 89, 31-38.	2.6	17
84	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
85	Measuring the expressivity of graph kernels through Statistical Learning Theory. Neurocomputing, 2017, 268, 4-16.	3.5	9
86	SLT-Based ELM for Big Social Data Analysis. Cognitive Computation, 2017, 9, 259-274.	3.6	11
87	Vessels fuel consumption forecast and trim optimisation: A data analytics perspective. Ocean Engineering, 2017, 130, 351-370.	1.9	127
88	Constraint-Aware Data Analysis on Mobile Devices. , 2017, , 127-149.		9
89	ReForeSt: Random Forests in Apache Spark. Lecture Notes in Computer Science, 2017, , 331-339.	1.0	3
90	Marine Safety and Data Analytics: Vessel Crash Stop Maneuvering Performance Prediction. Lecture Notes in Computer Science, 2017, , 385-393.	1.0	4

#	Article	IF	Citations
91	Semi-supervised Learning for Affective Common-Sense Reasoning. Cognitive Computation, 2017, 9, 18-42.	3.6	16
92	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
93	Crack random forest for arbitrary large datasets. , 2017, , .		1
94	Sentic Computing for Social Network Analysis. , 2017, , 71-90.		0
95	Deep graph node kernels: A convex approach. , 2017, , .		1
96	Quantum computing and supervised machine learning. , 2017, , 33-83.		8
97	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
98	Advanced Analytics for Train Delay Prediction Systems by Including Exogenous Weather Data. , 2016, , .		25
99	A local Vapnikâ€“Chervonenkis complexity. Neural Networks, 2016, 82, 62-75.	3.3	13
100	Statistical Learning Theory and ELM for Big Social Data Analysis. IEEE Computational Intelligence Magazine, 2016, 11, 45-55.	3.4	88
101	PAC-bayesian analysis of distribution dependent priors: Tighter risk bounds and stability analysis. Pattern Recognition Letters, 2016, 80, 200-207.	2.6	16
102	Vessel monitoring and design in industry 4.0: A data driven perspective. , 2016, , .		4
103	Global Rademacher Complexity Bounds: From Slow to Fast Convergence Rates. Neural Processing Letters, 2016, 43, 567-602.	2.0	17
104	Learning Hardware-Friendly Classifiers Through Algorithmic Stability. Transactions on Embedded Computing Systems, 2016, 15, 1-29.	2.1	3
105	Can machine learning explain human learning?. Neurocomputing, 2016, 192, 14-28.	3.5	13
106	Tikhonov, Ivanov and Morozov regularization for support vector machine learning. Machine Learning, 2016, 103, 103-136.	3.4	44
107	Transition-Aware Human Activity Recognition Using Smartphones. Neurocomputing, 2016, 171, 754-767.	3.5	502
108	Learning Hardware Friendly Classifiers Through Algorithmic Risk Minimization. Smart Innovation, Systems and Technologies, 2016, , 403-413.	0.5	0

#	Article	IF	Citations
109	Shrinkage learning to improve SVM with hints. , 2015, , .		1
110	Support vector machines and strictly positive definite kernel: The regularization hyperparameter is more important than the kernel hyperparameters. , 2015, , .		11
111	Fast convergence of extended Rademacher Complexity bounds. , 2015, , .		0
112	Performance assessment and uncertainty quantification of predictive models for smart manufacturing systems. , 2015, , .		3
113	Ship efficiency forecast based on sensors data collection: Improving numerical models through data analytics. , 2015, , .		12
114	Fully Empirical and Data-Dependent Stability-Based Bounds. IEEE Transactions on Cybernetics, 2015, 45, 1913-1926.	6.2	29
115	Learning Resource-Aware Classifiers for Mobile Devices: From Regularization to Energy Efficiency. Neurocomputing, 2015, 169, 225-235.	3.5	14
116	Local Rademacher Complexity: Sharper risk bounds with and without unlabeled samples. Neural Networks, 2015, 65, 115-125.	3.3	25
117	Machine learning for wear forecasting of naval assets for condition-based maintenance applications. , 2015, , .		9
118	Condition Based Maintenance in Railway Transportation Systems Based on Big Data Streaming Analysis. Procedia Computer Science, 2015, 53, 437-446.	1.2	98
119	Big Data Analytics in the Cloud: Spark on Hadoop vs MPI/OpenMP on Beowulf. Procedia Computer Science, 2015, 53, 121-130.	1.2	147
120	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
121	Out-of-Sample Error Estimation: The Blessing of High Dimensionality. , 2014, , .		0
122	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
123	Smartphone battery saving by bit-based hypothesis spaces and local Rademacher Complexities. , 2014, , .		1
124	Unlabeled patterns to tighten Rademacher complexity error bounds for kernel classifiers. Pattern Recognition Letters, 2014, 37, 210-219.	2.6	11
125	Human Activity Recognition on Smartphones with Awareness of Basic Activities and Postural Transitions. Lecture Notes in Computer Science, 2014, , 177-184.	1.0	45
126	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

#	Article	IF	Citations
127	An improved analysis of the Rademacher data-dependent bound using its self bounding property. Neural Networks, 2013, 44, 107-111.	3.3	15
128	A support vector machine classifier from a bit-constrained, sparse and localized hypothesis space. , 2013, , .		5
129	Some results about the Vapnik-Chervonenkis entropy and the rademacher complexity. , 2013, , .		1
130	Training Computationally Efficient Smartphoneâ€“Based Human Activity Recognition Models. Lecture Notes in Computer Science, 2013, , 426-433.	1.0	19
131	A Novel Procedure for Training L1-L2 Support Vector Machine Classifiers. Lecture Notes in Computer Science, 2013, , 434-441.	1.0	1
132	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
133	Rademacher Complexity and Structural Risk Minimization: An Application to Human Gene Expression Datasets. Lecture Notes in Computer Science, 2012, , 491-498.	1.0	1
134	Nested Sequential Minimal Optimization for Support Vector Machines. Lecture Notes in Computer Science, 2012, , 156-163.	1.0	3
135	Human Activity Recognition on Smartphones Using a Multiclass Hardware-Friendly Support Vector Machine. Lecture Notes in Computer Science, 2012, , 216-223.	1.0	540
136	In-sample Model Selection for Trimmed Hinge Loss Support Vector Machine. Neural Processing Letters, 2012, 36, 275-283.	2.0	17
137	In-sample model selection for Support Vector Machines. , 2011, , .		20
138	Selecting the hypothesis space for improving the generalization ability of Support Vector Machines. , 2011, , .		20
139	Model selection for support vector machines: Advantages and disadvantages of the Machine Learning Theory. , 2010, , .		62
140	Natural language processing for aviation safety: extracting knowledge from publicly-available loss of separation reports. Open Research Europe, 0, 1, 110.	2.0	0
141	Natural language processing for aviation safety: extracting knowledge from publicly-available loss of separation reports. Open Research Europe, 0, 1, 110.	2.0	1