

Luca Citi

List of Publications by Year in descending order

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Version: 2024-02-01

106
papers

3,635
citations

218592

26
h-index

182361

51
g-index

111
all docs

111
docs citations

111
times ranked

3571
citing authors

#	ARTICLE	IF	CITATIONS
1	Restoring Natural Sensory Feedback in Real-Time Bidirectional Hand Prostheses. <i>Science Translational Medicine</i> , 2014, 6, 222ra19.	5.8	805
2	Double nerve intraneural interface implant on a human amputee for robotic hand control. <i>Clinical Neurophysiology</i> , 2010, 121, 777-783.	0.7	367
3	cvxEDA: a Convex Optimization Approach to Electrodermal Activity Processing. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 63, 1-1.	2.5	253
4	Revealing Real-Time Emotional Responses: a Personalized Assessment based on Heartbeat Dynamics. <i>Scientific Reports</i> , 2014, 4, 4998.	1.6	169
5	P300-Based BCI Mouse With Genetically-Optimized Analogue Control. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2008, 16, 51-61.	2.7	134
6	On the Use of Longitudinal Intrafascicular Peripheral Interfaces for the Control of Cybernetic Hand Prostheses in Amputees. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2008, 16, 453-472.	2.7	106
7	On the use of wavelet denoising and spike sorting techniques to process electroneurographic signals recorded using intraneural electrodes. <i>Journal of Neuroscience Methods</i> , 2008, 172, 294-302.	1.3	105
8	A Real-Time Automated Point-Process Method for the Detection and Correction of Erroneous and Ectopic Heartbeats. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 2828-2837.	2.5	95
9	Decoding of grasping information from neural signals recorded using peripheral intrafascicular interfaces. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2011, 8, 53.	2.4	89
10	Decoding Information From Neural Signals Recorded Using Intraneural Electrodes: Toward the Development of a Neurocontrolled Hand Prosthesis. <i>Proceedings of the IEEE</i> , 2010, 98, 407-417.	16.4	84
11	Arousal and Valence Recognition of Affective Sounds Based on Electrodermal Activity. <i>IEEE Sensors Journal</i> , 2017, 17, 716-725.	2.4	75
12	Measures of sympathetic and parasympathetic autonomic outflow from heartbeat dynamics. <i>Journal of Applied Physiology</i> , 2018, 125, 19-39.	1.2	75
13	Point-Process Nonlinear Models With Laguerre and Volterra Expansions: Instantaneous Assessment of Heartbeat Dynamics. <i>IEEE Transactions on Signal Processing</i> , 2013, 61, 2914-2926.	3.2	71
14	Defining brain-machine interface applications by matching interface performance with device requirements. <i>Journal of Neuroscience Methods</i> , 2008, 167, 91-104.	1.3	70
15	Characterization of Depressive States in Bipolar Patients Using Wearable Textile Technology and Instantaneous Heart Rate Variability Assessment. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2015, 19, 263-274.	3.9	58
16	Estimation of Instantaneous Complex Dynamics through Lyapunov Exponents: A Study on Heartbeat Dynamics. <i>PLoS ONE</i> , 2014, 9, e105622.	1.1	53
17	Inhomogeneous point-process entropy: An instantaneous measure of complexity in discrete systems. <i>Physical Review E</i> , 2014, 89, 052803.	0.8	53
18	Documenting, modelling and exploiting P300 amplitude changes due to variable target delays in Donchin's speller. <i>Journal of Neural Engineering</i> , 2010, 7, 056006.	1.8	51

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19	Complexity Variability Assessment of Nonlinear Time-Varying Cardiovascular Control. Scientific Reports, 2017, 7, 42779.	1.6	44
20	Effect of data leakage in brain MRI classification using 2D convolutional neural networks. Scientific Reports, 2021, 11, 22544.	1.6	40
21	Combined Analysis of Cortical (EEG) and Nerve Stump Signals Improves Robotic Hand Control. Neurorehabilitation and Neural Repair, 2012, 26, 275-281.	1.4	37
22	Point-process Nonlinear Autonomic Assessment of Depressive States in Bipolar Patients. Methods of Information in Medicine, 2014, 53, 296-302.	0.7	37
23	Reaction-time binning: A simple method for increasing the resolving power of ERP averages. Psychophysiology, 2010, 47, 467-485.	1.2	34
24	Likelihood Methods for Point Processes with Refractoriness. Neural Computation, 2014, 26, 237-263.	1.3	34
25	Skin Admittance Measurement for Emotion Recognition: A Study over Frequency Sweep. Electronics (Switzerland), 2016, 5, 46.	1.8	34
26	A nonlinear heartbeat dynamics model approach for personalized emotion recognition. , 2013, 2013, 2579-82.		32
27	Novel Protocols for P300-Based Brain-Computer Interfaces. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 8-17.	2.7	29
28	Generalization Performance of Deep Learning Models in Neurodegenerative Disease Classification. , 2019, , .		28
29	Prospects of brain-machine interfaces for space system control. Acta Astronautica, 2009, 64, 448-456.	1.7	27
30	Prediction of Impaired Performance in Trail Making Test in MCI Patients With Small Vessel Disease Using DTI Data. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 1026-1033.	3.9	27
31	The PLOS ONE collection on machine learning in health and biomedicine: Towards open code and open data. PLoS ONE, 2019, 14, e0210232.	1.1	27
32	Assessment of spontaneous cardiovascular oscillations in Parkinson's disease. Biomedical Signal Processing and Control, 2016, 26, 80-89.	3.5	26
33	Instantaneous nonlinear assessment of complex cardiovascular dynamics by laguerre-volterra point process models. , 2013, 2013, 6131-4.		25
34	Instantaneous estimation of high-order nonlinear heartbeat dynamics by Lyapunov exponents. , 2012, 2012, 13-6.		21
35	Nonlinear digital signal processing in mental health: characterization of major depression using instantaneous entropy measures of heartbeat dynamics. Frontiers in Physiology, 2015, 6, 74.	1.3	21
36	3D Convolutional Neural Networks for Diagnosis of Alzheimer's Disease via Structural MRI. , 2020, , .		21

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37	SEEDS, simultaneous recordings of high-density EMG and finger joint angles during multiple hand movements. <i>Scientific Data</i> , 2019, 6, 186.	2.4	19
38	Electrodermal activity processing: A convex optimization approach. , 2014, 2014, 2290-3.		16
39	Forceâ€“Velocity Assessment of Caress-Like Stimuli Through the Electrodermal Activity Processing: Advantages of a Convex Optimization Approach. <i>IEEE Transactions on Human-Machine Systems</i> , 2016, , 1-10.	2.5	16
40	Instantaneous Transfer Entropy for the Study of Cardiovascular and Cardio-Respiratory Nonstationary Dynamics. <i>IEEE Transactions on Biomedical Engineering</i> , 2017, 65, 1-1.	2.5	16
41	A database of multi-channel intramuscular electromyogram signals during isometric hand muscles contractions. <i>Scientific Data</i> , 2020, 7, 10.	2.4	16
42	Memory with Memory in Genetic Programming. <i>Journal of Artificial Evolution and Applications</i> , 2009, 2009, 1-16.	1.8	14
43	Using Laguerre expansion within point-process models of heartbeat dynamics: A comparative study. , 2012, 2012, 29-32.		14
44	Real-Time Neural Signals Decoding onto Off-the-Shelf DSP Processors for Neuroprosthetic Applications. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2016, 24, 993-1002.	2.7	14
45	Instantaneous monitoring of heart beat dynamics during anesthesia and sedation. <i>Journal of Computational Surgery</i> , 2014, 1, .	0.6	13
46	Inhomogeneous Point-Processes to Instantaneously Assess Affective Haptic Perception through Heartbeat Dynamics Information. <i>Scientific Reports</i> , 2016, 6, 28567.	1.6	13
47	A protocol for a multicentre, parallel-group, pragmatic randomised controlled trial to evaluate the NEVERMIND system in preventing and treating depression in patients with severe somatic conditions. <i>BMC Psychiatry</i> , 2020, 20, 93.	1.1	13
48	The Landscape of the Heritable Cancer Genome. <i>Cancer Research</i> , 2021, 81, 2588-2599.	0.4	13
49	Dynamical density delay maps: simple, new method for visualising the behaviour of complex systems. <i>BMC Medical Informatics and Decision Making</i> , 2014, 14, 6.	1.5	12
50	Exploring multiple protocols for a brain-computer interface mouse. , 2010, 2010, 4189-92.		10
51	Real-time processing of tLIFE neural signals on embedded DSP platforms: A case study. , 2011, , .		8
52	Activities on PNS neural interfaces for the control of hand prostheses. , 2011, 2011, 4637-40.		8
53	Collaborative Brain-Computer Interfaces to Enhance Group Decisions in an Outpost Surveillance Task. , 2019, 2019, 3099-3102.		8
54	Anytime collaborative brainâ€“computer interfaces for enhancing perceptual group decision-making. <i>Scientific Reports</i> , 2021, 11, 17008.	1.6	8

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55	ECG-Derived Sympathetic and Parasympathetic Nervous System Dynamics: A Congestive Heart Failure Study. , 2018, , .		7
56	Subject- and task-independent neural correlates and prediction of decision confidence in perceptual decision making. Journal of Neural Engineering, 2021, 18, 046055.	1.8	7
57	The NEVERMIND e-health system in the treatment of depressive symptoms among patients with severe somatic conditions: A multicentre, pragmatic randomised controlled trial. EClinicalMedicine, 2022, 48, 101423.	3.2	7
58	Analogue evolutionary brain computer interfaces [Application Notes. IEEE Computational Intelligence Magazine, 2009, 4, 27-31.	3.4	6
59	Exploiting P300 amplitude variations can improve classification accuracy in Donchin's BCI speller. , 2009, , .		6
60	Eigenbrains: The free vibrational modes of the brain as a new representation for EEG. , 2010, 2010, 6011-4.		6
61	Instantaneous monitoring of sleep fragmentation by point process heart rate variability and respiratory dynamics. , 2011, 2011, 7735-8.		6
62	Bivariate point process modeling and joint non-stationary analysis of pulse transit time and heart period. , 2012, 2012, 2831-4.		6
63	Monitoring heartbeat nonlinear dynamics during general anesthesia by using the instantaneous dominant Lyapunov exponent. , 2012, 2012, 3124-7.		6
64	Target Detection in Video Feeds with Selected Dyads and Groups Assisted by Collaborative Brain-Computer Interfaces. , 2019, , .		6
65	Convolutional Autoencoder based Deep Learning Approach for Alzheimer's Disease Diagnosis using Brain MRI. , 2021, , .		6
66	Predicting seizures in untreated temporal lobe epilepsy using point-process nonlinear models of heartbeat dynamics. , 2016, 2016, 985-988.		5
67	Evolutionary Brain Computer Interfaces. , 2007, , 301-310.		5
68	Combining sudomotor nerve impulse estimation with fMRI to investigate the central sympathetic response to nausea. , 2015, 2015, 4683-6.		4
69	Instantaneous transfer entropy for the study of cardio-respiratory dynamics. , 2015, 2015, 7885-8.		4
70	Muscle fatigue assessment through electrodermal activity analysis during isometric contraction. , 2017, 2017, 398-401.		4
71	ECG-Derived Sympathetic and Parasympathetic Activity in the Healthy: an Early Lower-Body Negative Pressure Study Using Adaptive Kalman Prediction. , 2018, 2018, 5628-5631.		4
72	Recording experience with the thin-film Longitudinal Intra-Fascicular Electrode, a multichannel peripheral nerve interface. , 2007, , .		3

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73	Chapter 15 Matching Brain-Machine Interface Performance to Space Applications. International Review of Neurobiology, 2009, 86, 199-212.	0.9	3
74	Assessing real-time RR-QT frequency-domain measures of coupling and causality through inhomogeneous point-process bivariate models. , 2014, 2014, 6475-8.		3
75	Self-reported well-being score modelling and prediction: Proof-of-concept of an approach based on linear dynamic systems. , 2017, 2017, 2205-2208.		3
76	Bayesian Transfer Learning for the Prediction of Self-reported Well-being Scores. , 2018, 2018, 41-44.		3
77	Memory with Memory in Tree-Based Genetic Programming. Lecture Notes in Computer Science, 2009, , 25-36.	1.0	3
78	Confidence Prediction from EEG Recordings in a Multisensory Environment. , 2020, , .		3
79	Walking improves the performance of a brain-computer interface for group decision making. , 2022, , 221-233.		3
80	Instantaneous assessment of autonomic cardiovascular control during general anesthesia. , 2011, 2011, 8444-7.		2
81	Point-process analysis of neural spiking activity of muscle spindles recorded from thin-film longitudinal intrafascicular electrodes. , 2011, 2011, 2311-4.		2
82	A point process approach for analyzing gait variability dynamics. , 2011, 2011, 1648-51.		2
83	Building plant system energy sustainability. An approach for transient thermal performance analysis. Energy and Buildings, 2012, 49, 443-453.	3.1	2
84	An exploration of the effects of audio-visual entrainment on Parkinson's disease tremor. , 2013, , .		2
85	Assessing instantaneous QT variability dynamics within a point-process nonlinear framework. , 2014, , .		2
86	Inferring the stability of LIFE through Brain Machine Interfaces. , 2008, 2008, 2008-11.		1
87	A genetic programming approach to detecting artifact-generating eye movements from EEG in the absence of electro-oculogram. , 2011, , .		1
88	Assessment of gait nonlinear dynamics by inhomogeneous point-process models. , 2014, 2014, 6973-6.		1
89	Lower instantaneous entropy of heartbeat dynamics during seizures in untreated temporal lobe epilepsy. , 2015, , .		1
90	Disentanglement of sympathetic and parasympathetic activity by instantaneous analysis of human heartbeat dynamics. , 2016, 2016, 932-935.		1

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91	Active learning without unlabeled samples: generating questions and labels using Monte Carlo Tree Search. , 2019, , .		1
92	Benefits of Multisensory Cues in a Realistic Target Discrimination Task. , 2020, , .		1
93	High-Significance Averages of Event-Related Potential Via Genetic Programming. Genetic and Evolutionary Computation, 2010, , 135-157.	1.0	1
94	Tracking instantaneous entropy in heartbeat dynamics through inhomogeneous point-process nonlinear models. , 2014, 2014, 6369-72.		0
95	Defining an instantaneous complexity measure for heartbeat dynamics: The inhomogeneous point-process entropy. , 2014, , .		0
96	Elastic-net constrained multiple kernel learning using a majorization-minimization approach. , 2015, , .		0
97	A LightWAVE client for semi-automated annotation of Heart Beats from ECG Time Series. , 2015, , .		0
98	Applications of Heartbeat Complexity Analysis to Depression and Bipolar Disorder. , 2017, , 345-374.		0
99	Time-Varying Cardiovascular Complexity with Focus on Entropy and Lyapunov Exponents. , 2017, , 233-256.		0
100	Crosstalk Reduction in Epimysial EMG Recordings from Transhumeral Amputees with Principal Component Analysis. , 2018, 2018, 2124-2127.		0
101	Parametric Transfer Learning Based on the Fisher Divergence for Well-Being Prediction. , 2019, , .		0
102	Intrinsic Complexity of Sympathetic and Parasympathetic Dynamics from HRV series: a Preliminary Study on Postural Changes. , 2020, 2020, 2577-2580.		0
103	Irregularity Analysis of Sympathetic and Parasympathetic Activity Indices from HRV: A Pilot Study on Postural Changes. , 2020, , .		0
104	Assessment of Instantaneous Heartbeat Dynamics in amnesic Mild Cognitive Impairment. IFMBE Proceedings, 2018, , 366-369.	0.2	0
105	Hybrid Gaussian Point-Process Model for Finer Control of Myoelectric Robotic Hands. Biosystems and Biorobotics, 2019, , 137-140.	0.2	0
106	Human Chemosignals Modulate Interactions Between Social and Emotional Brain Areas. , 2020, , .		0