Gaetano Valenza

List of Publications by Citations

172 papers	**2,845** citations	**29** h-index	**47** g-index
190 ext. papers	**3,671** ext. citations	**3.1** avg, IF	**5.65** L-index

#	Paper	IF	Citations
172	cvxEDA: A Convex Optimization Approach to Electrodermal Activity Processing. *IEEE Transactions on Biomedical Engineering*, **2016**, 63, 797-804	5	145
171	. *IEEE Transactions on Affective Computing*, **2012**, 3, 237-249	5.7	132
170	Affective computing in virtual reality: emotion recognition from brain and heartbeat dynamics using wearable sensors. *Scientific Reports*, **2018**, 8, 13657	4.9	124
169	. *IEEE Transactions on Affective Computing*, **2015**, 6, 385-394	5.7	108
168	Complexity index from a personalized wearable monitoring system for assessing remission in mental health. *IEEE Journal of Biomedical and Health Informatics*, **2015**, 19, 132-9	7.2	100
167	Wearable monitoring for mood recognition in bipolar disorder based on history-dependent long-term heart rate variability analysis. *IEEE Journal of Biomedical and Health Informatics*, **2014**, 18, 1625-35	7.2	99
166	Revealing real-time emotional responses: a personalized assessment based on heartbeat dynamics. *Scientific Reports*, **2014**, 4, 4998	4.9	96
165	. *IEEE Transactions on Intelligent Transportation Systems*, **2015**, 16, 1505-1517	6.1	78
164	Mood recognition in bipolar patients through the PSYCHE platform: preliminary evaluations and perspectives. *Artificial Intelligence in Medicine*, **2013**, 57, 49-58	7.4	71
163	Dominant Lyapunov exponent and approximate entropy in heart rate variability during emotional visual elicitation. *Frontiers in Neuroengineering*, **2012**, 5, 3		61
162	Combining electroencephalographic activity and instantaneous heart rate for assessing brain-heart dynamics during visual emotional elicitation in healthy subjects. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2016**, 374,	3	61
161	Electrodermal activity in bipolar patients during affective elicitation. *IEEE Journal of Biomedical and Health Informatics*, **2014**, 18, 1865-73	7.2	60
160	. *IEEE Transactions on Signal Processing*, **2013**, 61, 2914-2926	4.8	57
159	Arousal and Valence Recognition of Affective Sounds Based on Electrodermal Activity. *IEEE Sensors Journal*, **2017**, 17, 716-725	4	55
158	Characterization of depressive States in bipolar patients using wearable textile technology and instantaneous heart rate variability assessment. *IEEE Journal of Biomedical and Health Informatics*, **2015**, 19, 263-74	7.2	48
157	Oscillations of heart rate and respiration synchronize during affective visual stimulation. *IEEE Transactions on Information Technology in Biomedicine*, **2012**, 16, 683-90		46
156	Inhomogeneous point-process entropy: an instantaneous measure of complexity in discrete systems. *Physical Review E*, **2014**, 89, 052803	2.4	45

155	The central autonomic network at rest: Uncovering functional MRI correlates of time-varying autonomic outflow. *NeuroImage*, **2019**, 197, 383-390	7.9	43
154	Daytime naps improve motor imagery learning. *Cognitive, Affective and Behavioral Neuroscience*, **2011**, 11, 541-50	3.5	43
153	Mood states modulate complexity in heartbeat dynamics: A multiscale entropy analysis. *Europhysics Letters*, **2014**, 107, 18003	1.6	41
152	A novel EDA glove based on textile-integrated electrodes for affective computing. *Medical and Biological Engineering and Computing*, **2012**, 50, 1163-72	3.1	41
151	Robust multiple cardiac arrhythmia detection through bispectrum analysis. *Expert Systems With Applications*, **2011**, 38, 6798-6804	7.8	41
150	Estimation of instantaneous complex dynamics through Lyapunov exponents: a study on heartbeat dynamics. *PLoS ONE*, **2014**, 9, e105622	3.7	40
149	Speech analysis for mood state characterization in bipolar patients. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 2104-7	0.9	39
148	Improving emotion recognition systems by embedding cardiorespiratory coupling. *Physiological Measurement*, **2013**, 34, 449-64	2.9	38
147	Predicting Mood Changes in Bipolar Disorder through Heartbeat Nonlinear Dynamics. *IEEE Journal of Biomedical and Health Informatics*, **2016**, 20, 1034-1043	7.2	35
146	Eye gaze patterns in emotional pictures. *Journal of Ambient Intelligence and Humanized Computing*, **2013**, 4, 705-715	3.7	33
145	Complexity Variability Assessment of Nonlinear Time-Varying Cardiovascular Control. *Scientific Reports*, **2017**, 7, 42779	4.9	29
144	Advances in Electrodermal Activity Processing with Applications for Mental Health **2016**,		29
143	Measures of sympathetic and parasympathetic autonomic outflow from heartbeat dynamics. *Journal of Applied Physiology*, **2018**, 125, 19-39	3.7	29
142	The heart side of brain neuromodulation. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2016**, 374,	3	28
141	Assessing Autonomic Function from Electrodermal Activity and Heart Rate Variability During Cold-Pressor Test and Emotional Challenge. *Scientific Reports*, **2020**, 10, 5406	4.9	27
140	A nonlinear heartbeat dynamics model approach for personalized emotion recognition. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 2579-82	0.9	27
139	Towards a smart glove: arousal recognition based on textile Electrodermal Response. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 3598-601	0.9	26
138	Uncovering brain-heart information through advanced signal and image processing. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2016**, 374,	3	26

137	Multivariate Granger causality unveils directed parietal to prefrontal cortex connectivity during task-free MRI. *Scientific Reports*, **2018**, 8, 5571	4.9	25
136	Skin Admittance Measurement for Emotion Recognition: A Study over Frequency Sweep. *Electronics (Switzerland)*, **2016**, 5, 46	2.6	25
135	Time-Resolved Directional Brain-Heart Interplay Measurement Through Synthetic Data Generation Models. *Annals of Biomedical Engineering*, **2019**, 47, 1479-1489	4.7	24
134	Simplifying Telerobotics: Wearability and Teleimpedance Improves Human-Robot Interactions in Teleoperation. *IEEE Robotics and Automation Magazine*, **2018**, 25, 77-88	3.4	24
133	A Novel Algorithm for Movement Artifact Removal in ECG Signals Acquired from Wearable Systems Applied to Horses. *PLoS ONE*, **2015**, 10, e0140783	3.7	24
132	Uncovering complex central autonomic networks at rest: a functional magnetic resonance imaging study on complex cardiovascular oscillations. *Journal of the Royal Society Interface*, **2020**, 17, 20190878	4.1	23
131	Assessment of spontaneous cardiovascular oscillations in Parkinson's disease. *Biomedical Signal Processing and Control*, **2016**, 26, 80-89	4.9	22
130	Mortality Prediction in Severe Congestive Heart Failure Patients with Multifractal Point-Process Modeling of Heartbeat Dynamics. *IEEE Transactions on Biomedical Engineering*, **2018**, 65, 2345-2354	5	21
129	Real vs. immersive-virtual emotional experience: Analysis of psycho-physiological patterns in a free exploration of an art museum. *PLoS ONE*, **2019**, 14, e0223881	3.7	19
128	Instantaneous nonlinear assessment of complex cardiovascular dynamics by Laguerre-Volterra point process models. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, 2013, 2013, 6131-4	0.9	19
127	Instantaneous estimation of high-order nonlinear heartbeat dynamics by Lyapunov exponents. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 13-6	0.9	18
126	A Wearable System for the Evaluation of the Human-Horse Interaction: A Preliminary Study. *Electronics (Switzerland)*, **2016**, 5, 63	2.6	18
125	Reliability of Lagged Poincaré Plot Parameters in Ultrashort Heart Rate Variability Series: Application on Affective Sounds. *IEEE Journal of Biomedical and Health Informatics*, **2018**, 22, 741-749	7.2	17
124	Nonlinear digital signal processing in mental health: characterization of major depression using instantaneous entropy measures of heartbeat dynamics. *Frontiers in Physiology*, **2015**, 6, 74	4.6	17
123	Predicting Object-Mediated Gestures From Brain Activity: An EEG Study on Gender Differences. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2019**, 27, 411-418	4.8	16
122	Exploiting upper-limb functional principal components for human-like motion generation of anthropomorphic robots. *Journal of NeuroEngineering and Rehabilitation*, **2020**, 17, 63	5.3	15
121	Force/Velocity Assessment of Caress-Like Stimuli Through the Electrodermal Activity Processing: Advantages of a Convex Optimization Approach. *IEEE Transactions on Human-Machine Systems*, **2016**, 1-10	4.1	15
120	On the Time-Invariance Properties of Upper Limb Synergies. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2019**, 27, 1397-1406	4.8	15

119	Electrodermal activity processing: a convex optimization approach. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 2290-3	0.9	15
118	Lateralization of directional brain-heart information transfer during visual emotional elicitation. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2019**, 317, R25-R38	3.2	14
117	Eye tracking and pupil size variation as response to affective stimuli: a preliminary study **2011**,		14
116	Functional Linear and Nonlinear Brain−Heart Interplay during Emotional Video Elicitation: A Maximum Information Coefficient Study. *Entropy*, **2019**, 21, 892	2.8	14
115	Heartbeat Complexity Modulation in Bipolar Disorder during Daytime and Nighttime. *Scientific Reports*, **2017**, 7, 17920	4.9	13
114	Characterizing psychological dimensions in non-pathological subjects through autonomic nervous system dynamics. *Frontiers in Computational Neuroscience*, **2015**, 9, 37	3.5	13
113	Using Laguerre expansion within point-process models of heartbeat dynamics: a comparative study. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 29-32	0.9	13
112	Longitudinal monitoring of heartbeat dynamics predicts mood changes in bipolar patients: A pilot study. *Journal of Affective Disorders*, **2017**, 209, 30-38	6.6	12
111	Validation of smart textile electrodes for electrocardiogram monitoring in free-moving horses. *Journal of Veterinary Behavior: Clinical Applications and Research*, **2017**, 17, 19-23	1.9	12
110	A pattern recognition approach based on electrodermal response for pathological mood identification in bipolar disorders **2014**,		12
109	A functional analysis-based approach to quantify upper limb impairment level in chronic stroke patients: a pilot study. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2019**, 2019, 4198-4204	0.9	12
108	Assessment of muscle fatigue during isometric contraction using autonomic nervous system correlates. *Biomedical Signal Processing and Control*, **2019**, 51, 42-49	4.9	11
107	Autonomic effects of cognitive reappraisal and acceptance in social anxiety: evidence for common and distinct pathways for parasympathetic reactivity. *Journal of Anxiety Disorders*, **2014**, 28, 795-803	10.9	11
106	Electrodermal activity analysis during affective haptic elicitation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 5777-80	0.9	10
105	EEG oscillations during caress-like affective haptic elicitation. *Psychophysiology*, **2018**, 55, e13199	4.1	10
104	Affective communication during bad news consultation. Effect on analogue patients◻heart rate variability and recall. *Patient Education and Counseling*, **2018**, 101, 1892-1899	3.1	9
103	On the Role of Affective Properties in Hedonic and Discriminant Haptic Systems. *International Journal of Social Robotics*, **2017**, 9, 87-95	4	9
102	Instantaneous Transfer Entropy for the Study of Cardiovascular and Cardiorespiratory Nonstationary Dynamics. *IEEE Transactions on Biomedical Engineering*, **2018**, 65, 1077-1085	5	9

101	Intensification of functional neural control on heartbeat dynamics in subclinical depression. *Translational Psychiatry*, **2021**, 11, 221	8.6	9
100	A Case for the Interspecies Transfer of Emotions: A Preliminary Investigation on How Humans Odors Modify Reactions of the Autonomic Nervous System in Horses. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2018**, 2018, 522-525	0.9	9
99	Central modulation of parasympathetic outflow is impaired in de novo Parkinson's disease patients. *PLoS ONE*, **2019**, 14, e0210324	3.7	8
98	Gender-specific velocity recognition of caress-like stimuli through nonlinear analysis of Heart Rate Variability. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 298-301	0.9	8
97	Assessment of linear and nonlinear/complex heartbeat dynamics in subclinical depression (dysphoria). *Physiological Measurement*, **2018**, 39, 034004	2.9	8
96	Novel Spiking Neuron-Astrocyte Networks based on nonlinear transistor-like models of tripartite synapses. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 6559-62	0.9	8
95	Instantaneous monitoring of heart beat dynamics during anesthesia and sedation. *Journal of Computational Surgery*, **2014**, 1,		8
94	Motor imagery effectiveness for mirror reversed movements. *Cognitive, Affective and Behavioral Neuroscience*, **2011**, 11, 22-31	3.5	8
93	Neuron-glia cross talk revealed in reverberating networks by simultaneous extracellular recording of spikes and astrocytes glutamate transporter and K+ currents. *Journal of Neurophysiology*, **2016**, 116, 2706-2719	3.2	8
92	Multichannel Complexity Index (MCI) for a multi-organ physiological complexity assessment. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 530, 121543	3.3	7
91	Automatic recognition of pleasant content of odours through ElectroEncephaloGraphic activity analysis. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 4519-4522	0.9	7
90	The role of electroencephalography electrical reference in the assessment of functional brain-heart interplay: From methodology to user guidelines. *Journal of Neuroscience Methods*, **2021**, 360, 109269	3	7
89	U-Limb: A multi-modal, multi-center database on arm motion control in healthy and post-stroke conditions. *GigaScience*, **2021**, 10,	7.6	6
88	Increased functional connectivity within alpha and theta frequency bands in dysphoria: A resting-state EEG study. *Journal of Affective Disorders*, **2021**, 281, 199-207	6.6	6
87	EEG Complexity Maps to Characterise Brain Dynamics during Upper Limb Motor Imagery. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2018**, 2018, 3060-3063	0.9	6
86	Brain Dynamics Induced by Pleasant/Unpleasant Tactile Stimuli Conveyed by Different Fabrics. *IEEE Journal of Biomedical and Health Informatics*, **2019**, 23, 2417-2427	7.2	5
85	Relationship between cardiac vagal activity and mood congruent memory bias in major depression. *Journal of Affective Disorders*, **2016**, 190, 19-25	6.6	5
84	Assessing mood symptoms through heartbeat dynamics: An HRV study on cardiosurgical patients. *Journal of Psychiatric Research*, **2017**, 95, 179-188	5.2	5

83	Removing movement artifacts from equine ECG recordings acquired with textile electrodes. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 1955-8	0.9	5
82	Heart rate variability and the dawn of complex physiological signal analysis: methodological and clinical perspectives. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2021**, 379, 20200255	3	5
81	Toward brain-heart computer interfaces: a study on the classification of upper limb movements using multisystem directional estimates. *Journal of Neural Engineering*, **2021**,	5	5
80	Classifying Affective Haptic Stimuli through Gender-Specific Heart Rate Variability Nonlinear Analysis. *IEEE Transactions on Affective Computing*, **2020**, 11, 459-469	5.7	5
79	Brain Dynamics During Arousal-Dependent Pleasant/Unpleasant Visual Elicitation: An Electroencephalographic Study on the Circumplex Model of Affect. *IEEE Transactions on Affective Computing*, **2021**, 12, 417-428	5.7	5
78	Gender-specific automatic valence recognition of affective olfactory stimulation through the analysis of the electrodermal activity. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, 2016, 2016, 299-402	0.9	4
77	Instantaneous transfer entropy for the study of cardio-respiratory dynamics. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 7885-8	0.9	4
76	Predicting mood changes in bipolar disorder through heartbeat nonlinear dynamics: A preliminary study **2015**,		4
75	Quantifying Functional Links between Brain and Heartbeat Dynamics in the Multifractal Domain: a Preliminary Analysis. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2020**, 2020, 561-564	0.9	4
74	Methodological Considerations on EEG Electrical Reference: A Functional Brain-Heart Interplay Study. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2020**, 2020, 553-556	0.9	4
73	Integral pulse frequency modulation model driven by sympathovagal dynamics: Synthetic vs. real heart rate variability. *Biomedical Signal Processing and Control*, **2021**, 68, 102736	4.9	4
72	Heart rate variability analysis for the assessment of immersive emotional arousal using virtual reality: Comparing real and virtual scenarios. *PLoS ONE*, **2021**, 16, e0254098	3.7	4
71	Time-Resolved Brain-to-Heart Probabilistic Information Transfer Estimation Using Inhomogeneous Point-Process Models. *IEEE Transactions on Biomedical Engineering*, **2021**, 68, 3366-3374	5	4
70	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. *BMC Psychiatry*, **2020**, 20, 93	4.2	3
69	Advanced technology meets mental health: how smartphones, textile electronics, and signal processing can serve mental health monitoring, diagnosis, and treatment. *IEEE Pulse*, **2014**, 5, 56-9	0.7	3
68	Causal brain-heart information transfer during visual emotional elicitation in healthy subjects: Preliminary evaluations and future perspectives. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, 2017, 2017, 1558-1568	0.9	3
67	Electroencephalographic spectral correlates of caress-like affective haptic stimuli. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 4733-6	0.9	3
66	**2015**,		3

65	Temporal trends of neuro-autonomic complexity during severe episodes of bipolar disorders. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 2948-51	0.9	3
64	Monitoring heartbeat nonlinear dynamics during general anesthesia by using the instantaneous dominant Lyapunov exponent. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 3124-7	0.9	3
63	Functional brain-heart interplay extends to the multifractal domain. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2021**, 379, 20200260	3	3
62	EEG Processing to Discriminate Transitive-Intransitive Motor Imagery Tasks: Preliminary Evidences using Support Vector Machines. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2018**, 2018, 231-234	0.9	3
61	Functional assessment of bidirectional cortical and peripheral neural control on heartbeat dynamics: A brain-heart study on thermal stress.. *NeuroImage*, **2022**, 251, 119023	7.9	3
60	Analysis of Instantaneous Linear, Nonlinear and Complex Cardiovascular Dynamics from Videophotoplethysmography. *Methods of Information in Medicine*, **2018**, 57, 135-140	1.5	2
59	Recognition of affective haptic stimuli conveyed by different fabrics sing EEG-based sparse SVM **2017**,		2
58	Brain dynamics during emotion elicitation in healthy subjects: An EEG study **2015**,		2
57	On the tridimensional estimation of the gaze point by a stereoscopic wearable eye tracker. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 2283-6	0.9	2
56	Arousal recognition system based on heartbeat dynamics during auditory elicitation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 6110-3	0.9	2
55	Maximal-radius multiscale entropy of cardiovascular variability: a promising biomarker of pathological mood states in bipolar disorders. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 6663-6	0.9	2
54	Assessing instantaneous QT variability dynamics within a point-process nonlinear framework **2014**,		2
53	Characterizing Functional Directional Brain-Heart Interplay in Subclinical Depression (Dysphoria): a Preliminary Study using EEG and HRV **2020**,		2
52	An Inhomogeneous Point-process Model for the Assessment of the Brain-to-Heart Functional Interplay: a Pilot Study. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2020**, 2020, 557-560	0.9	2
51	The Role of EEG Electrical Reference in the Assessment of Functional Brain-Heart Interplay: A Preliminary Study **2020**,		2
50	Effect of yoga on pulse rate variability measured from a venous pressure waveform. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2019**, 2019, 372-375	0.9	2
49	ECG-Derived Sympathetic and Parasympathetic Activity in the Healthy: an Early Lower-Body Negative Pressure Study Using Adaptive Kalman Prediction. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2018**, 2018, 5628-5631	0.9	2
48	Electrodermal Phenomena and Recording Techniques **2016**, 1-17		1

47	Exploratory analysis of nonlinear coupling between EEG global field power and end-tidal carbon dioxide in free breathing and breath-hold tasks. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 728-731	0.9	1
46	On the pleasantness of a haptic stimulation: how different textures can be recognized through heart rate variability nonlinear analysis. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 8538-8541	0.9	1
45	Reconstructing multivariate causal structure between functional brain networks through a Laguerre-Volterra based Granger causality approach. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 5477-5480	0.9	1
44	Exploiting Physiological Sensors and Biosignal Processing to Enhance Monitoring Care in Mental Health. *Scalable Computing and Communications*, **2017**, 515-550	0.2	1
43	Self-reported well-being score modelling and prediction: Proof-of-concept of an approach based on linear dynamic systems. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2017**, 2017, 2205-2208	0.9	1
42	Muscle fatigue assessment through electrodermal activity analysis during isometric contraction. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2017**, 2017, 398-401	0.9	1
41	**2015**,		1
40	Characterization of behavioral activation in non-pathological subjects through Heart Rate Variability monovariate and multivariate multiscale entropy analysis **2014**,		1
39	Assessment of gait nonlinear dynamics by inhomogeneous point-process models. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 6973-6	0.9	1
38	Experimental Evidences on Healthy Subjects and Bipolar Patients. *Series in Bioengineering*, **2014**, 85-123	0.7	1
37	Modeling for the Analysis of the EDA **2016**, 19-33		1
36	Introduction to Advances in Autonomic Nervous System Dynamics for Mood and Emotional-State Recognition. *Series in Bioengineering*, **2014**, 3-8	0.7	1
35	Valence-dependent changes in visual arousing elicitation: an exploratory study in EEG gamma oscillations. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 4555-4558	0.9	1
34	Refined Generalized Multivariate Multiscale Fuzzy Entropy: A Preliminary Study on Multichannel Physiological Complexity During Postural Changes **2018**,		1
33	Inferring directionality of coupled dynamical systems using Gaussian process priors: Application on neurovascular systems.. *Physical Review E*, **2021**, 104, 064208	2.4	1
32	Cardiac sympathetic-vagal activity initiates a functional brain-body response to emotional arousal.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2119599119	11.5	1
31	Heart rate variability analysis during muscle fatigue due to prolonged isometric contraction. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2017**, 2017, 1324-1327	0.9	0
30	BHI Estimation Methodology **2021**, 21-50		0

29   Sympathovagal Changes **2021**, 53-78   0

28   BHI Physiology at a Glance **2021**, 3-19   0

27   Bioelectric Impedance Analysis Test Improves the Detection of Prostate Cancer in Biopsy
      Candidates: A Multifeature Decision Support System. *Frontiers in Oncology*, **2021**, 11, 555277   5.3   0

26   Quantifying partition-based Kolmogorov-Sinai Entropy on Heart Rate Variability: a young vs. elderly
      study. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE
      Engineering in Medicine and Biology Society Annual International Conference*, **2021**, 2021, 5469-5472   0.9   0

25   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   11.3   0

24   Perspective: It's All About Time. *IEEE Transactions on Nanobioscience*, **2017**, 16, 309-310   3.4

23   Guest Editorial Sensor Informatics for Managing Mental Health. *IEEE Journal of Biomedical and
      Health Informatics*, **2016**, 20, 975-976   7.2

22   Emotions and Mood States: Modeling, Elicitation, and Recognition **2016**, 45-54

21   Experimental Applications on Multi-Sensory Affective Stimulation **2016**, 55-109

20   Stochastic modeling of spontaneous bursting activity to simulate neural responses of in-vitro
      networks on multielectrode arrays. *Annual International Conference of the IEEE Engineering in
      Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International
      Conference*, **2016**, 2016, 1616-1619   0.9

19   Applications of Heartbeat Complexity Analysis to Depression and Bipolar Disorder **2017**, 345-374

18   Time-Varying Cardiovascular Complexity with Focus on Entropy and Lyapunov Exponents **2017**, 233-256

17   Nonlinear analysis of heart rate variability for the assessment of Dysphoria. *Annual International
      Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and
      Biology Society Annual International Conference*, **2017**, 2017, 3170-3173   0.9

16   Tracking instantaneous entropy in heartbeat dynamics through inhomogeneous point-process
      nonlinear models. *Annual International Conference of the IEEE Engineering in Medicine and Biology
      Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**,   0.9

15   Decoding underlying brain activities in time and frequency domains through complex independent
      component analysis of EEG signals. *Annual International Conference of the IEEE Engineering in
      Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International
      Conference*, **2014**, 2014, 3192-5   0.9

14   Recognizing motor imagery tasks from EEG oscillations through a novel ensemble-based neural
      network architecture. *Annual International Conference of the IEEE Engineering in Medicine and
      Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*,
      2021, 2021, 5983-5986   0.9

13   Advanced computation in cardiovascular physiology: new challenges and opportunities.
      Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, **2021**, 379, 20200265   2

12   Activation of brain-heart axis during REM sleep: a trigger for dreaming. *American Journal of
      Physiology - Regulatory Integrative and Comparative Physiology*, **2021**, 321, R951-R959   3.2

LIST OF PUBLICATIONS

11	Assessment of Instantaneous Heartbeat Dynamics in amnestic Mild Cognitive Impairment. *IFMBE Proceedings*, **2018**, 366-369	0.2
10	Advanced Signal Processing and Modeling for ANS Data. *Series in Bioengineering*, **2014**, 45-82	0.7
9	Emotions and Mood States: Modeling, Elicitation, and Classification. *Series in Bioengineering*, **2014**, 9-21	0.7
8	Data Acquisition: Experimental Procedures and Wearable Monitoring Systems. *Series in Bioengineering*, **2014**, 25-43	0.7
7	Conclusions and Discussion on Mood and Emotional-State Recognition Using the Autonomic Nervous System Dynamics. *Series in Bioengineering*, **2014**, 127-138	0.7
6	Intrinsic Complexity of Sympathetic and Parasympathetic Dynamics from HRV series: a Preliminary Study on Postural Changes. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2020**, 2020, 2577-2580	0.9
5	Quantifying multidimensional control mechanisms of cardiovascular dynamics during multiple concurrent stressors. *Medical and Biological Engineering and Computing*, **2021**, 59, 775-785	3.1
4	Investigating mechanical properties of a fabric-based affective haptic display through electrodermal activity analysis. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 407-410	0.9
3	Psychiatric and Neurological Disorders **2021**, 117-141	
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