Riccardo Barbieri

List of Publications by Year
in descending order

193 papers	5,443 citations	94433 37 h-index	106344 65 g-index
201 all docs	201 docs citations	201 times ranked	4530 citing authors

#	Article	IF	Citations
1	A 'Multiomic' Approach of Saliva Metabolomics, Microbiota, and Serum Biomarkers to Assess the Need of Hospitalization in Coronavirus Disease 2019. , 2022, 1, 194-209.		11
2	Functional assessment of bidirectional cortical and peripheral neural control on heartbeat dynamics: A brain-heart study on thermal stress. NeuroImage, 2022, 251, 119023.	4.2	28
3	Analysis of physiological and non-contact signals to evaluate the emotional component in consumer preferences. PLoS ONE, 2022, 17, e0267429.	2.5	3
4	A Novel Approach for Segment-Length Selection Based on Stationarity to Perform Effective Connectivity Analysis Applied to Resting-State EEG Signals. Sensors, 2022, 22, 4747.	3.8	2
5	Characterizing cardiac autonomic dynamics of fear learning in humans. Psychophysiology, 2022, 59, .	2.4	47
6	Time-Resolved Brain-to-Heart Probabilistic Information Transfer Estimation Using Inhomogeneous Point-Process Models. IEEE Transactions on Biomedical Engineering, 2021, 68, 3366-3374.	4.2	15
7	Development and Evaluation of a Novel Method for Adult Hearing Screening: Towards a Dedicated Smartphone App. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2021, , 3-19.	0.3	3
8	Artificial intelligence-based prediction of transfusion in the intensive care unit in patients with gastrointestinal bleeding. BMJ Health and Care Informatics, 2021, 28, e100245.	3.0	18
9	Evaluation of a Novel Speech-in-Noise Test for Hearing Screening: Classification Performance and Transducers' Characteristics. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 4300-4307.	6.3	5
10	A polysomnography study examining the association between sleep and postoperative delirium in older hospitalized cardiac surgical patients. Journal of Sleep Research, 2021, 30, e13322.	3.2	18
11	Quantifying multidimensional control mechanisms of cardiovascular dynamics during multiple concurrent stressors. Medical and Biological Engineering and Computing, 2021, 59, 775-785.	2.8	0
12	Integral pulse frequency modulation model driven by sympathovagal dynamics: Synthetic vs. real heart rate variability. Biomedical Signal Processing and Control, 2021, 68, 102736.	5.7	15
13	Elementary integrate-and-fire process underlies pulse amplitudes in Electrodermal activity. PLoS Computational Biology, 2021, 17, e1009099.	3.2	1
14	Quantitative assessment of the relationship between behavioral and autonomic dynamics during propofol-induced unconsciousness. PLoS ONE, 2021, 16, e0254053.	2.5	7
15	A Model-Based Framework for Assessing the Physiologic Structure of Electrodermal Activity. IEEE Transactions on Biomedical Engineering, 2021, 68, 2833-2845.	4.2	6
16	Bayesian supervised machine learning classification of neural networks with pathological perturbations. Biomedical Physics and Engineering Express, 2021, 7, 065021.	1.2	4
17	Respiratory-gated auricular vagal afferent nerve stimulation (RAVANS) modulates brain response to stress in major depression. Journal of Psychiatric Research, 2021, 142, 188-197.	3.1	7
18	Functional brain–heart interplay extends to the multifractal domain. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200260.	3.4	19

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19	A novel artificial intelligence based intensive care unit monitoring system: using physiological waveforms to identify sepsis. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200252.	3.4	13
20	Analysis of the Effect of Emotion Elicitation on the Cardiovascular System. , 2021, , .		0
21	Unsupervised Machine Learning Methods for Artifact Removal in Electrodermal Activity. , 2021, 2021, 399-402.		5
22	The role of waveform monitoring in Sepsis identification within the first hour of Intensive Care Unit stay. , 2020, , .		7
23	Intrinsic Complexity of Sympathetic and Parasympathetic Dynamics from HRV series: a Preliminary Study on Postural Changes. , 2020, 2020, 2577-2580.		0
24	Quantifying Functional Links between Brain and Heartbeat Dynamics in the Multifractal Domain: a Preliminary Analysis. , 2020, 2020, 561-564.		5
25	A Point Process Framework for the Characterization of Fetal Sleep States. , 2020, 2020, 612-615.		1
26	Prediction of Septic Shock Onset in ICU by Instantaneous Monitoring of Vital Signs. , 2020, 2020, 2768-2771.		7
27	Irregularity Analysis of Sympathetic and Parasympathetic Activity Indices from HRV: A Pilot Study on Postural Changes. , 2020, , .		0
28	Analyzing Transitions in Anesthesia by Multimodal Characterization of Autonomic State. , 2020, , .		4
29	Instantaneous Brain-to-Heart Functional Assessment using Inhomogeneous Point-process Models: a Proof of Concept Study. , 2020, , .		1
30	Detecting Loss and Regain of Consciousness during Propofol Anesthesia using Multimodal Indices of Autonomic State. , 2020, 2020, 824-827.		6
31	Frequency dependent functional brain reorganization in anesthesia is specific to drug concentration. , 2020, 2020, 2921-2924.		0
32	Analysis of physiological and non-contact signals for the assessment of emotional components in consumer preference. , 2020, , .		1
33	Frequency-Dependent Effects of Exhalatory-Gated Transcutaneous Vagus Nerve Stimulation on Cardiac Autonomic Regulation in Hypertension. , 2020, , .		1
34	Modulatory Effects of Respiratory-Gated Auricular Vagal Nerve Stimulation on Cardiovagal Activity in Hypertension*. , 2020, 2020, 2581-2584.		6
35	An Inhomogeneous Point-process Model for the Assessment of the Brain-to-Heart Functional Interplay: a Pilot Study. , 2020, 2020, 557-560.		2
36	Effects of Respiratory-Gated Auricular Vagal Afferent Nerve Stimulation (RAVANS) in Hypertensive Patients during the Handgrip experiment. , 2020, , .		0

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37	Improved tracking of sevoflurane anesthetic states with drug-specific machine learning models. Journal of Neural Engineering, 2020, 17, 046020.	3.5	3
38	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.	3.4	42
39	Assessing Autonomic Function from Electrodermal Activity and Heart Rate Variability During Cold-Pressor Test and Emotional Challenge. Scientific Reports, 2020, 10, 5406.	3.3	67
40	Impact of sex and depressed mood on the central regulation of cardiac autonomic function. Neuropsychopharmacology, 2020, 45, 1280-1288.	5.4	9
41	Stimulus frequency modulates brainstem response to respiratory-gated transcutaneous auricular vagus nerve stimulation. Brain Stimulation, 2020, 13, 970-978.	1.6	61
42	An Automated Speech-in-Noise Test for Remote Testing: Development and Preliminary Evaluation. American Journal of Audiology, 2020, 29, 564-576.	1.2	13
43	Point process temporal structure characterizes electrodermal activity. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26422-26428.	7.1	18
44	Characterization of Eye Gaze and Pupil Diameter Measurements from Remote and Mobile Eye-Tracking Devices. IFMBE Proceedings, 2020, , 201-208.	0.3	1
45	Closed-Loop Cardiovascular Interactions and the Baroreflex Cardiac Arm: Modulations Over the 24 h and the Effect of Hypertension. Frontiers in Physiology, 2019, 10, 477.	2.8	12
46	A Parsimonious Granger Causality Formulation for Capturing Arbitrarily Long Multivariate Associations. Entropy, 2019, 21, 629.	2.2	1
47	Central modulation of parasympathetic outflow is impaired in de novo Parkinson's disease patients. PLoS ONE, 2019, 14, e0210324.	2.5	22
48	Lateralization of directional brain-heart information transfer during visual emotional elicitation. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2019, 317, R25-R38.	1.8	32
49	The central autonomic network at rest: Uncovering functional MRI correlates of time-varying autonomic outflow. NeuroImage, 2019, 197, 383-390.	4.2	92
50	The influence of respiration on brainstem and cardiovagal response to auricular vagus nerve stimulation: A multimodal ultrahigh-field (7T) fMRI study. Brain Stimulation, 2019, 12, 911-921.	1.6	104
51	A Point Process Framework for the Characterization of Sleep States in Early Infancy. , 2019, 2019, 3645-3648.		2
52	Development and preliminary evaluation of a novel adaptive staircase procedure for automated speech-in-noise testing. , 2019, 2019, 6991-6994.		7
53	Automatic Detection of General Anesthetic-States using ECG-Derived Autonomic Nervous System Features. , 2019, 2019, 2019-2022.		3
54	A Systematic Method for Preprocessing and Analyzing Electrodermal Activity. , 2019, 2019, 6902-6905.		13

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55	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.	4.2	30
56	EEG indices correlate with sustained attention performance in patients affected by diffuse axonal injury. Medical and Biological Engineering and Computing, 2018, 56, 991-1001.	2.8	18
57	ECG-Derived Sympathetic and Parasympathetic Nervous System Dynamics: A Congestive Heart Failure Study. , 2018, , .		7
58	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
59	A Point Process Characterization Of Electrodermal Activity. , 2018, 2018, 37-40.		14
60	A Stimulus-Response Processing Framework for Pupil Dynamics Assessment during Iso-Luminant Stimuli. , 2018, 2018, 400-403.		1
61	Corrections to â€œEEG Analysis During Active and Assisted Repetitive Movements: Evidence for Differences in Neural Engagementâ€. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1311-1311.	4.9	0
62	Measures of sympathetic and parasympathetic autonomic outflow from heartbeat dynamics. Journal of Applied Physiology, 2018, 125, 19-39.	2.5	75
63	Multivariate Granger causality unveils directed parietal to prefrontal cortex connectivity during task-free MRI. Scientific Reports, 2018, 8, 5571.	3.3	32
64	Analysis of Instantaneous Linear, Nonlinear and Complex Cardiovascular Dynamics from Videophotoplethysmography. Methods of Information in Medicine, 2018, 57, 135-140.	1.2	3
65	Assessment of Instantaneous Heartbeat Dynamics in amnestic Mild Cognitive Impairment. IFMBE Proceedings, 2018, , 366-369.	0.3	0
66	Feature-continuous motion judgements: Assessing different random dot motion displays. Journal of Vision, 2018, 18, 668.	0.3	1
67	Motion sickness increases functional connectivity between visual motion and nausea-associated brain regions. Autonomic Neuroscience: Basic and Clinical, 2017, 202, 108-113.	2.8	40
68	Complexity Variability Assessment of Nonlinear Time-Varying Cardiovascular Control. Scientific Reports, 2017, 7, 42779.	3.3	44
69	Patient-Specific Classification of ICU Sedation Levels From Heart Rate Variability*. Critical Care Medicine, 2017, 45, e683-e690.	0.9	28
70	Modulation of brainstem activity and connectivity by respiratory-gated auricular vagal afferent nerve stimulation in migraine patients. Pain, 2017, 158, 1461-1472.	4.2	99
71	Causal brain-heart information transfer during visual emotional elicitation in healthy subjects: Preliminary evaluations and future perspectives. , 2017, 2017, 1559-1562.		5
72	Introduction to Complex Cardiovascular Physiology. , 2017, , 3-42.		1

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73	Applications of Heartbeat Complexity Analysis to Depression and Bipolar Disorder. , 2017, , 345-374.		0
74	Time-Varying Cardiovascular Complexity with Focus on Entropy and Lyapunov Exponents. , 2017, , 233-256.		0
75	EEG Analysis During Active and Assisted Repetitive Movements: Evidence for Differences in Neural Engagement. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 761-771.	4.9	42
76	Predicting Bradycardia in Preterm Infants Using Point Process Analysis of Heart Rate. IEEE Transactions on Biomedical Engineering, 2017, 64, 2300-2308.	4.2	41
77	Assessment of instantaneous cardiovascular dynamics from video plethysmography. , 2017, 2017, 1776-1779.		4
78	Validation of instantaneous bispectral high-frequency power of heartbeat dynamics as a marker of cardiac vagal activity. , 2017, 2017, 3765-3768.		2
79	Instantaneous Transfer Entropy for the Study of Cardiovascular and Cardio-Respiratory Nonstationary Dynamics. IEEE Transactions on Biomedical Engineering, 2017, 65, 1-1.	4.2	16
80	Respiratory-gated Auricular Vagal Afferent Nerve Stimulation (RAVANS) effects on autonomic outflow in hypertension. , 2017, 2017, 3130-3133.		15
81	e-Health solutions for better care: Characterization of health apps to extract meaningful information and support users' choices. , 2017, , .		7
82	Instantaneous Assessment of Hedonic Olfactory Perception Using Heartbeat Nonlinear Dynamics: a Preliminary Study. , 2017, , .		3
83	An Algorithm for Risk Stratification of Preterm Infants. , 2017, , .		1
84	Abstract 21014: Respiratory-Gated Auricular Vagal Nerve Stimulation Lowers Blood Pressure in Hypertensive Patients. Circulation, 2017, 136, .	1.6	0
85	Brain Circuitry Supporting Multi-Organ Autonomic Outflow in Response to Nausea. Cerebral Cortex, 2016, 26, bhu172.	2.9	40
86	Improving heart rate estimation in preterm infants with bivariate point process analysis of heart rate and respiration. , 2016, 2016, 920-923.		6
87	Disentanglement of sympathetic and parasympathetic activity by instantaneous analysis of human heartbeat dynamics. , 2016, 2016, 932-935.		1
88	Globally conditioned Granger causality in brain–brain and brain–heart interactions: a combined heart rate variability/ultra-high-field (7 T) functional magnetic resonance imaging study. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150185.	3.4	42
89	Neuroimaging brainstem circuitry supporting cardiovagal response to pain: a combined heart rate variability/ultrahigh-field (7 T) functional magnetic resonance imaging study. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150189.	3.4	39
90	Uncovering brain–heart information through advanced signal and image processing. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20160020.	3.4	34

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91	Reconstructing multivariate causal structure between functional brain networks through a Laguerre-Volterra based Granger causality approach. , 2016, 2016, 5477-5480.		3
92	Assessment of spontaneous cardiovascular oscillations in Parkinson's disease. Biomedical Signal Processing and Control, 2016, 26, 80-89.	5.7	26
93	Relationship between cardiac vagal activity and mood congruent memory bias in major depression. Journal of Affective Disorders, 2016, 190, 19-25.	4.1	10
94	Nonlinear analysis of pupillary dynamics. Biomedizinische Technik, 2016, 61, 95-106.	0.8	13
95	Changes in instantaneous complex dynamics during exercise in Chronic Mountain Sickness. , 2015, , .		0
96	Nonlinear digital signal processing in mental health: characterization of major depression using instantaneous entropy measures of heartbeat dynamics. Frontiers in Physiology, 2015, 6, 74.	2.8	21
97	Combining sudomotor nerve impulse estimation with fMRI to investigate the central sympathetic response to nausea. , 2015, 2015, 4683-6.		4
98	Globally conditioned causality in estimating directed brain-heart interactions through joint MRI and RR series analysis. , 2015, 2015, 3795-8.		0
99	Instantaneous transfer entropy for the study of cardio-respiratory dynamics. , 2015, 2015, 7885-8.		4
100	Instantaneous bispectral analysis of heartbeat dynamics for the assessment of major depression. , 2015, , .		4
101	A LightWAVE client for semi-automated annotation of Heart Beats from ECG Time Series. , 2015, , .		0
102	Characterization of fear conditioning and fear extinction by analysis of electrodermal activity. , 2015, 2015, 7814-8.		34
103	Lower instantaneous entropy of heartbeat dynamics during seizures in untreated temporal lobe epilepsy. , 2015, , .		1
104	Uncovering statistical features of bradycardia severity in premature infants using a point process model. , 2015, 2015, 5855-8.		6
105	Estimating a dynamic state to relate neural spiking activity to behavioral signals during cognitive tasks. , 2015, 2015, 7808-13.		7
106	EEG-based index for engagement level monitoring during sustained attention. , 2015, 2015, 1512-5.		42
107	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, 263-274.	6.3	58
108	The Somatosensory Link in Fibromyalgia: Functional Connectivity of the Primary Somatosensory Cortex Is Altered by Sustained Pain and Is Associated With Clinical/Autonomic Dysfunction. Arthritis and Rheumatology, 2015, 67, 1395-1405.	5.6	124

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109	Point-process Nonlinear Autonomic Assessment of Depressive States in Bipolar Patients. Methods of Information in Medicine, 2014, 53, 296-302.	1.2	37
110	Tracking instantaneous entropy in heartbeat dynamics through inhomogeneous point-process nonlinear models. , 2014, 2014, 6369-72.		0
111	Maximal-radius multiscale entropy of cardiovascular variability: A promising biomarker of pathological mood states in bipolar disorders. , 2014, 2014, 6663-6.		3
112	Measuring Complexity of Heart Rate Variability in NaÃ¯ve Yoga Practitioners with Insomnia and PTSD. Journal of Alternative and Complementary Medicine, 2014, 20, A132-A132.	2.1	2
113	Assessing instantaneous QT variability dynamics within a point-process nonlinear framework. , 2014, , .		2
114	Defining an instantaneous complexity measure for heartbeat dynamics: The inhomogeneous point-process entropy. , 2014, , .		0
115	Assessment of gait nonlinear dynamics by inhomogeneous point-process models. , 2014, 2014, 6973-6.		1
116	Likelihood Methods for Point Processes with Refractoriness. Neural Computation, 2014, 26, 237-263.	2.2	34
117	Modeling heart beat dynamics and fMRI signals during carotid stimulation by neck suction. , 2014, 2014, 6647-50.		0
118	Estimation of Instantaneous Complex Dynamics through Lyapunov Exponents: A Study on Heartbeat Dynamics. PLoS ONE, 2014, 9, e105622.	2.5	53
119	Instantaneous monitoring of heart beat dynamics during anesthesia and sedation. Journal of Computational Surgery, 2014, 1, .	0.6	13
120	Inhomogeneous point-process entropy: An instantaneous measure of complexity in discrete systems. Physical Review E, 2014, 89, 052803.	2.1	53
121	Revealing Real-Time Emotional Responses: a Personalized Assessment based on Heartbeat Dynamics. Scientific Reports, 2014, 4, 4998.	3.3	169
122	Brain correlates of phasic autonomic response to acupuncture stimulation: An event-related fMRI study. Human Brain Mapping, 2013, 34, 2592-2606.	3.6	67
123	Point-Process Nonlinear Models With Laguerre and Volterra Expansions: Instantaneous Assessment of Heartbeat Dynamics. IEEE Transactions on Signal Processing, 2013, 61, 2914-2926.	5.3	71
124	Reconstruction and analysis of the pupil dilation signal: Application to a psychophysiological affective protocol. , 2013, 2013, 5-8.		11
125	Instantaneous nonlinear assessment of complex cardiovascular dynamics by laguerre-volterra point process models. , 2013, 2013, 6131-4.		25
126	A nonlinear heartbeat dynamics model approach for personalized emotion recognition. , 2013, 2013, 2579-82.		32

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127	Point Process Modeling of Interbreath Interval: A New Approach for the Assessment of Instability of Breathing in Neonates. IEEE Transactions on Biomedical Engineering, 2013, 60, 2858-2866.	4.2	12
128	Characterization of affective states by pupillary dynamics and autonomic correlates. Frontiers in Neuroengineering, 2013, 6, 9.	4.8	37
129	Editorial: engineering approaches to study cardiovascular physiology: modeling, estimation, and signal processing. Frontiers in Physiology, 2012, 3, 425.	2.8	1
130	Using Laguerre expansion within point-process models of heartbeat dynamics: A comparative study. , 2012, 2012, 29-32.		14
131	Bivariate point process modeling and joint non-stationary analysis of pulse transit time and heart period. , 2012, 2012, 2831-4.		6
132	Monitoring heartbeat nonlinear dynamics during general anesthesia by using the instantaneous dominant Lyapunov exponent. , 2012, 2012, 3124-7.		6
133	Instantaneous estimation of high-order nonlinear heartbeat dynamics by Lyapunov exponents. , 2012, 2012, 13-6.		21
134	A Real-Time Automated Point-Process Method for the Detection and Correction of Erroneous and Ectopic Heartbeats. IEEE Transactions on Biomedical Engineering, 2012, 59, 2828-2837.	4.2	95
135	A multivariate time-frequency method to characterize the influence of respiration over heart period and arterial pressure. Eurasip Journal on Advances in Signal Processing, 2012, 2012, .	1.7	20
136	A Unified Point Process Probabilistic Framework to Assess Heartbeat Dynamics and Autonomic Cardiovascular Control. Frontiers in Physiology, 2012, 3, 4.	2.8	7
137	Point process time–frequency analysis of dynamic respiratory patterns during meditation practice. Medical and Biological Engineering and Computing, 2012, 50, 261-275.	2.8	16
138	Instantaneous monitoring of sleep fragmentation by point process heart rate variability and respiratory dynamics. , 2011, 2011, 7735-8.		6
139	Instantaneous assessment of autonomic cardiovascular control during general anesthesia. , 2011, 2011, 8444-7.		2
140	Fig. A. Aviation, Space, and Environmental Medicine, 2011, 82, 424-33.	0.5	29
141	Statistical Inference for Assessing Functional Connectivity of Neuronal Ensembles With Sparse Spiking Data. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 121-135.	4.9	51
142	Assessment of cardio-respiratory interactions in preterm infants by bivariate autoregressive modeling and surrogate data analysis. Early Human Development, 2011, 87, 477-487.	1.8	11
143	Blood pressure variability and closed-loop baroreflex assessment in adolescent chronic fatigue syndrome during supine rest and orthostatic stress. European Journal of Applied Physiology, 2011, 111, 497-507.	2.5	40
144	Dynamic Assessment of Baroreflex Control of Heart Rate During Induction of Propofol Anesthesia Using a Point Process Method. Annals of Biomedical Engineering, 2011, 39, 260-276.	2.5	46

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145	Point-process analysis of neural spiking activity of muscle spindles recorded from thin-film longitudinal intrafascicular electrodes. , 2011, 2011, 2311-4.		2
146	A point process approach for analyzing gait variability dynamics. , 2011, 2011, 1648-51.		2
147	A point process model of respiratory dynamics in early physiological development. , 2011, 2011, 3804-7.		1
148	Characterizing Nonlinear Heartbeat Dynamics Within a Point Process Framework. IEEE Transactions on Biomedical Engineering, 2010, 57, 1335-1347.	4.2	45
149	Psychophysiological signals associated with affective states. , 2010, 2010, 3563-6.		49
150	A differential autoregressive modeling approach within a point process framework for non-stationary heartbeat intervals analysis. , 2010, 2010, 3567-70.		10
151	Point process time-frequency analysis of respiratory sinus arrhythmia under altered respiration dynamics. , 2010, 2010, 1622-5.		5
152	State Space Modeling of Neural Spike Train and Behavioral Data. , 2010, , 175-218.		15
153	Characterizing the Frequency Structure of Fast Oscillations in the Rodent Hippocampus. Frontiers in Integrative Neuroscience, 2009, 3, 11.	2.1	22
154	Discrete- and Continuous-Time Probabilistic Models and Algorithms for Inferring Neuronal UP and DOWN States. Neural Computation, 2009, 21, 1797-1862.	2.2	39
155	A regularized point process generalized linear model for assessing the functional connectivity in the cat motor cortex. , 2009, 2009, 5006-9.		5
156	Assessment of Autonomic Control and Respiratory Sinus Arrhythmia Using Point Process Models of Human Heart Beat Dynamics. IEEE Transactions on Biomedical Engineering, 2009, 56, 1791-1802.	4.2	50
157	Measuring instantaneous frequency of local field potential oscillations using the Kalman smoother. Journal of Neuroscience Methods, 2009, 184, 365-374.	2.5	23
158	Linear and nonlinear quantification of respiratory sinus arrhythmia during propofol general anesthesia. , 2009, 2009, 5336-9.		7
159	A unified point process framework for assessing heartbeat dynamics and cardiovascular control. , 2009, , .		1
160	Assessment of baroreflex control of heart rate during general anesthesia using a point process method. , 2009, 2009, 333-336.		6
161	Application of dynamic point process models to cardiovascular control. BioSystems, 2008, 93, 120-125.	2.0	18
162	Enhanced Vagal Withdrawal During Mild Orthostatic Stress in Adolescents with Chronic Fatigue. Annals of Noninvasive Electrocardiology, 2008, 13, 67-73.	1.1	40

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163	Autonomic Heart Rate Control at Rest and During Unloading of the Right Ventricle in Repaired Tetralogy of Fallot in Adolescents. American Journal of Cardiology, 2008, 102, 1085-1089.	1.6	6
164	Instantaneous frequency and amplitude modulation of EEG in the hippocampus reveals state dependent temporal structure. , 2008, 2008, 1711-5.		6
165	Brain correlates of autonomic modulation: Combining heart rate variability with fMRI. NeuroImage, 2008, 42, 169-177.	4.2	304
166	A study of probabilistic models for characterizing human heart beat dynamics in autonomic blockade control. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , 481-484.	1.8	12
167	Characterizing nonlinear heartbeat dynamics within a point process framework. , 2008, 2008, 2781-4.		7
168	Assessment of hippocampal and autonomic neural activity by point process models. , 2008, 2008, 3679.		0
169	A Combined fMRI and Heart Rate Variability Paradigm for Assessment of Central Autonomic Modulation. , 2007, , .		0
170	Construction of Point Process Adaptive Filter Algorithms for Neural Systems Using Sequential Monte Carlo Methods. IEEE Transactions on Biomedical Engineering, 2007, 54, 419-428.	4.2	74
171	Correction of Erroneous and Ectopic Beats Using a Point Process Adaptive Algorithm. , 2006, 2006, 3373-6.		7
172	Automatic Quantitative Evaluation of Emotions in E-learning Applications. , 2006, 2006, 1359-62.		9
173	Analysis of Heartbeat Dynamics by Point Process Adaptive Filtering. IEEE Transactions on Biomedical Engineering, 2006, 53, 4-12.	4.2	100
174	Automatic Quantitative Evaluation of Emotions in E-learning Applications. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
175	Correction of Erroneous and Ectopic Beats Using a Point Process Adaptive Algorithm. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
176	Changes in cardiovascular function during the sleep onset period in young adults. Journal of Applied Physiology, 2005, 98, 468-476.	2.5	58
177	An analysis of hippocampal spatio-temporal representations using a Bayesian algorithm for neural spike train decoding. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2005, 13, 131-136.	4.9	48
178	A point-process model of human heartbeat intervals: new definitions of heart rate and heart rate variability. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 288, H424-H435.	3.2	241
179	Dynamic Analyses of Information Encoding in Neural Ensembles. Neural Computation, 2004, 16, 277-307.	2.2	179
180	Dynamic Analysis of Neural Encoding by Point Process Adaptive Filtering. Neural Computation, 2004, 16, 971-998.	2.2	321

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181	Heart rate control and mechanical cardiopulmonary coupling to assess central volume: a systems analysis. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2002, 283, R1210-R1220.	1.8	99
182	The Time-Rescaling Theorem and Its Application to Neural Spike Train Data Analysis. Neural Computation, 2002, 14, 325-346.	2.2	446
183	Construction and analysis of non-Gaussian spatial models of neural spiking activity. Neurocomputing, 2002, 44-46, 309-314.	5.9	6
184	Construction and analysis of non-Poisson stimulus-response models of neural spiking activity. Journal of Neuroscience Methods, 2001, 105, 25-37.	2.5	174
185	Diagnostic methods for statistical models of place cell spiking activity. Neurocomputing, 2001, 38-40, 1087-1093.	5.9	22
186	A time-dependent analysis of spatial information encoding in the rat hippocampus. Neurocomputing, 2000, 32-33, 629-635.	5.9	2
187	Multivariate time-variant identification of cardiovascular variability signals: a beat-to-beat spectral parameter estimation in vasovagal syncope. IEEE Transactions on Biomedical Engineering, 1997, 44, 978-989.	4.2	42
188	A multivariate time-variant AR method for the analysis of heart rate and arterial blood pressure. Medical Engineering and Physics, 1997, 19, 109-124.	1.7	16
189	Continuous Quantification of Baroreflex and Respiratory Control of Heart Rate by Use of Bivariate Autoregressive Techniques. Annals of Noninvasive Electrocardiology, 1996, 1, 264-277.	1.1	29
190	Effects of Respiratory-Gated Auricular Vagal Nerve Stimulation (RAVANS) on Nonlinear Heartbeat Dynamics of Hypertensive Patients. , 0, , .		2
191	Investigating Phasic Activity of Time-Varying High-Order Spectra: A Heartbeat Dynamics Study During Cold-Pressure Test. , 0, , .		4
192	Acute Effects of Respiratory-Gated Auricular Vagal Afferent Nerve Stimulation in the Modulation of Blood Pressure in Hypertensive Patients. , 0, , .		9
193	Inhomogeneous Heart Rate Variability Spectral Complexity: A Preliminary Evaluation With Gravitational Stimuli Under Selective Autonomic Blockade. , 0, , .		0