Robert E Kearney

List of Publications by Year
in descending order

130 **papers**	4,253 **citations**	147801 31 **h-index**	123424 61 **g-index**
132 **all docs**	132 **docs citations**	132 **times ranked**	4069 **citing authors**

#	Article	IF	Citations
1	A Non-Parametric Approach for Identification of Parameter Varying Hammerstein Systems. IEEE Access, 2022, 10, 6348-6362.	4.2	4
2	Identification of human balance control responses to visual inputs using virtual reality. Journal of Neurophysiology, 2022, 127, 1159-1170.	1.8	6
3	A Model-Based Insulin Dose Optimization Algorithm for People With Type 1 Diabetes on Multiple Daily Injections Therapy. IEEE Transactions on Biomedical Engineering, 2021, 68, 1208-1219.	4.2	9
4	Identification of Central and Stretch Reflex Contributions to Human Postural Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 497-507.	4.9	3
5	Estimation and Discriminability of Doppler Ultrasound Fetal Heart Rate Variability Measures. Frontiers in Artificial Intelligence, 2021, 4, 674238.	3.4	0
6	Cardiorespiratory behavior of preterm infants receiving continuous positive airway pressure and high flow nasal cannula post extubation: randomized crossover study. Pediatric Research, 2020, 87, 62-68.	2.3	9
7	The Efficacy of Basal Rate and Carbohydrate Ratio Learning Algorithm for Closed-Loop Insulin Delivery (Artificial Pancreas) in Youth with Type 1 Diabetes in a Diabetes Camp. Diabetes Technology and Therapeutics, 2020, 22, 185-194.	4.4	7
8	Assessment of Extubation Readiness Using Spontaneous Breathing Trials in Extremely Preterm Neonates. JAMA Pediatrics, 2020, 174, 178.	6.2	33
9	Automatic unsupervised respiratory analysis of infant respiratory inductance plethysmography signals. PLoS ONE, 2020, 15, e0238402.	2.5	8
10	A pilot‹scp›non‐inferiority‹/scp›randomized controlled trial to assess automatic adjustments of insulin doses in adolescents with type 1 diabetes on multiple daily injections therapy. Pediatric Diabetes, 2020, 21, 950-959.	2.9	10
11	Postprandial hyperglycaemia following insulin suspensions by the artificial pancreas: Implications for bolus calculators. Diabetes, Obesity and Metabolism, 2020, 22, 1474-1477.	4.4	0
12	Patterns of muscle activation and modulation of ankle intrinsic stiffness in different postural operating conditions. Journal of Neurophysiology, 2020, 123, 743-754.	1.8	4
13	Title is missing!. , 2020, 15, e0238402.		0
14	Title is missing!. , 2020, 15, e0238402.		0
15	Title is missing!. , 2020, 15, e0238402.		0
16	Title is missing!. , 2020, 15, e0238402.		0
17	Experimental Methods to Study Human Postural Control. Journal of Visualized Experiments, 2019, , .	0.3	8
18	The effects of nasal continuous positive airway pressure and high flow nasal cannula on heart rate variability in extremely preterm infants after extubation: A randomized crossover trial. Pediatric Pulmonology, 2019, 54, 788-796.	2.0	10

#	ARTICLE	IF	CITATIONS
19	A Closed-Loop Method to Identify EMG-Torque Dynamics in Human Balance Control. , 2019, 2019, 5059-5062.		2
20	Toward the Bionic Face: A Novel Neuroprosthetic Device Paradigm for Facial Reanimation Consisting of Neural Blockade and Functional Electrical Stimulation. Plastic and Reconstructive Surgery, 2019, 143, 62e-76e.	1.4	28
21	The Impact of Time Interval between Extubation and Reintubation on Death or Bronchopulmonary Dysplasia in Extremely Preterm Infants. Journal of Pediatrics, 2019, 205, 70-76.e2.	1.8	44
22	Ankle intrinsic stiffness changes with postural sway. Journal of Biomechanics, 2019, 85, 50-58.	2.1	29
23	Short Segment and Parameter Varying Identification of Time-Varying Dynamic Joint Stiffness. Biosystems and Biorobotics, 2019, , 632-636.	0.3	0
24	Optimal Classification of Respiratory Patterns From Manual Analyses Using Expectation-Maximization. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 1026-1035.	6.3	3
25	Patterns of reintubation in extremely preterm infants: a longitudinal cohort study. Pediatric Research, 2018, 83, 969-975.	2.3	50
26	EMG-Torque Dynamics Change With Contraction Bandwidth. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 807-816.	4.9	7
27	Design and Validation of a Biofeedback Device to Improve Heel-to-Toe Gait in Seniors. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 140-146.	6.3	14
28	Heart Rate Variability in Extremely Preterm Infants Receiving Nasal CPAP and Non-Synchronized Noninvasive Ventilation Immediately After Extubation. Respiratory Care, 2018, 63, 62-69.	1.6	15
29	Undersampling and Bagging of Decision Trees in the Analysis of Cardiorespiratory Behavior for the Prediction of Extubation Readiness in Extremely Preterm Infants. , 2018, 2018, 4940-4944.		3
30	Unbiased Estimation of Human Joint Intrinsic Mechanical Properties During Movement. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1975-1984.	4.9	10
31	Measurement of Dynamic Joint Stiffness from Multiple Short Data Segments. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 925-934.	4.9	12
32	A Subspace Approach to the Structural Decomposition and Identification of Ankle Joint Dynamic Stiffness. IEEE Transactions on Biomedical Engineering, 2017, 64, 1357-1368.	4.2	31
33	Identification of a Time-Varying, Box-Jenkins Model of Intrinsic Joint Compliance. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 1211-1220.	4.9	9
34	Ankle Joint Intrinsic Dynamics is More Complex than a Mass-Spring-Damper Model. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 1568-1580.	4.9	34
35	Physiological tremor increases when skeletal muscle is shortened: implications for fusimotor control. Journal of Physiology, 2017, 595, 7331-7346.	2.9	13
36	Ankle intrinsic stiffness is modulated by postural sway. , 2017, 2017, 70-73.		7

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37	A semi-Markov chain approach to modeling respiratory patterns prior to extubation in preterm infants. , 2017, 2017, 2022-2026.		3
38	Predicting extubation readiness in extreme preterm infants based on patterns of breathing. , 2017, , .		2
39	Linear Parameter Varying Identification of Dynamic Joint Stiffness during Time-Varying Voluntary Contractions. Frontiers in Computational Neuroscience, 2017, 11, 35.	2.1	17
40	Estimation of Time-Varying, Intrinsic and Reflex Dynamic Joint Stiffness during Movement. Application to the Ankle Joint. Frontiers in Computational Neuroscience, 2017, 11, 51.	2.1	10
41	Prediction of Extubation readiness in extremely preterm infants by the automated analysis of cardiorespiratory behavior: study protocol. BMC Pediatrics, 2017, 17, 167.	1.7	33
42	Design of a hydraulic ankle-foot orthosis. , 2016, , .		1
43	Measurement of shank angle during stance using laser range finders. , 2016, 2016, 3374-3377.		5
44	The characterization of the kinematic and dynamic properties of the ankle joint for an artificial ankle joint design. , 2016, , .		2
45	Automated ongoing data validation and quality control of multi-institutional studies. , 2016, 2016, 2504-2507.		5
46	Time-varying identification of ankle dynamic joint stiffness during movement with constant muscle activation. , 2015, 2015, 6740-3.		7
47	A Non-Parametric Linear Parameter Varying Approach for Identification of Linear Time-Varying Systems**This work has been supported by Qatar National Research Funds (QNRF).. IFAC-PapersOnLine, 2015, 48, 733-738.	0.9	2
48	Identification of time-varying dynamics of reflex EMG in the ankle plantarflexors during time-varying, isometric contractions. , 2015, 2015, 6744-7.		2
49	Methods for the Identification of Time-Varying Hammerstein Systems with Applications to the Study of Dynamic Joint Stiffness. IFAC-PapersOnLine, 2015, 48, 1023-1028.	0.9	2
50	Parametric Methods for Identification of Time-Invariant and Time-Varying Joint Stiffness Models. IFAC-PapersOnLine, 2015, 48, 1375-1380.	0.9	3
51	Scoring Tools for the Analysis of Infant Respiratory Inductive Plethysmography Signals. PLoS ONE, 2015, 10, e0134182.	2.5	8
52	Feature selection and oversampling in analysis of clinical data for extubation readiness in extreme preterm infants. , 2015, 2015, 4427-30.		3
53	An Instrumental Variable Approach for the Identification of Time-Varying, Hammerstein Systems**DLG is supported by Fonds de recherche du Qubec Nature et technologies.. IFAC-PapersOnLine, 2015, 48, 196-201.	0.9	4
54	Automated analysis of respiratory behavior in extremely preterm infants and extubation readiness. Pediatric Pulmonology, 2015, 50, 479-486.	2.0	23

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55	Expression, sorting, and segregation of Golgi proteins during germ cell differentiation in the testis. Molecular Biology of the Cell, 2015, 26, 4015-4032.	2.1	23
56	Compartmentalization of membrane trafficking, glucose transport, glycolysis, actin, tubulin and the proteasome in the cytoplasmic droplet/Hermes body of epididymal sperm. Open Biology, 2015, 5, 150080.	3.6	24
57	Identification of intrinsic and reflexive contributions to low-back stiffness: medium-term reliability and construct validity. Journal of Biomechanics, 2015, 48, 254-261.	2.1	21
58	Identification of ankle joint stiffness during passive movements — A subspace linear parameter varying approach. , 2014, 2014, 1603-6.		5
59	Modulation of ankle stiffness during postural sway. , 2014, 2014, 4062-5.		7
60	Identification of ankle joint stiffness from short segments of data: Application to passive dynamics during movement. , 2014, 2014, 3284-7.		2
61	Automated analysis of respiratory behavior for the prediction of apnea in infants following general anesthesia. , 2014, 2014, 262-5.		6
62	Subspace Identification of SISO Hammerstein Systems: Application to Stretch Reflex Identification. IEEE Transactions on Biomedical Engineering, 2013, 60, 2725-2734.	4.2	50
63	Using a robotic interface and haptic feedback to improve grip coordination of hand function following stroke — Case study. , 2013, , .		1
64	Subspace method decomposition and identification of the parallel-cascade model of ankle joint stiffness: Theory and simulation. , 2013, 2013, 5071-4.		4
65	Linear parameter varying identification of ankle joint intrinsic stiffness during imposed walking movements. , 2013, 2013, 4923-7.		8
66	Analysis and modeling of noise in biomedical systems. , 2013, 2013, 997-1000.		14
67	A novel algorithm for linear parameter varying identification of Hammerstein systems with time-varying nonlinearities. , 2013, 2013, 4928-32.		6
68	Identification of a parametric, discrete-time model of ankle stiffness. , 2013, 2013, 5065-70.		8
69	A NARMAX method for the identification of time-varying joint stiffness. , 2012, 2012, 6518-21.		4
70	Prediction of extubation readiness in extreme preterm infants based on measures of cardiorespiratory variability. , 2012, 2012, 5630-3.		19
71	Identification of Hammerstein Systems from Short Segments of Data: Application to Stretch Reflex Identification. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 798-803.	0.4	2
72	A Machine—Learning Approach to the Detection of Fetal Hypoxia during Labor and Delivery. AI Magazine, 2012, 33, 79-90.	1.6	13

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73	Automated Off-Line Respiratory Event Detection for the Study of Postoperative Apnea in Infants. IEEE Transactions on Biomedical Engineering, 2011, 58, 1724-1733.	4.2	20
74	Identification of Time-Varying Intrinsic and Reflex Joint Stiffness. IEEE Transactions on Biomedical Engineering, 2011, 58, 1715-1723.	4.2	52
75	Efficient estimation of time-varying intrinsic and reflex stiffness. , 2011, 2011, 4124-7.		2
76	Estimation of the gain and threshold of the stretch reflex with a novel subspace identification algorithm. , 2011, 2011, 4431-4.		5
77	An identification algorithm for Hammerstein systems using subspace method. , 2011, , .		6
78	Automated unsupervised respiratory event analysis. , 2011, 2011, 3201-4.		16
79	Decoupling of stretch reflex and background muscle activity during anticipatory postural adjustments in humans. Experimental Brain Research, 2010, 205, 205-213.	1.5	11
80	Classification of Normal and Hypoxic Fetuses From Systems Modeling of Intrapartum Cardiotocography. IEEE Transactions on Biomedical Engineering, 2010, 57, 771-779.	4.2	99
81	Proteomic analysis of the transitional endoplasmic reticulum in hepatocellular carcinoma: An organelle perspective on cancer. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 1869-1881.	2.3	38
82	Accurate samples for testing mass spectrometry based peptide quantification algorithms. , 2010, 2010, 5524-8.		0
83	Identification of the Dynamic Relationship Between Intrapartum Uterine Pressure and Fetal Heart Rate for Normal and Hypoxic Fetuses. IEEE Transactions on Biomedical Engineering, 2009, 56, 1587-1597.	4.2	33
84	A HUPO test sample study reveals common problems in mass spectrometryâ€"based proteomics. Nature Methods, 2009, 6, 423-430.	19.0	316
85	Identifier and database from the same sequence repository provide the greatest number of correct pairings between RNA and protein data. , 2009, , .		0
86	Automated respiratory inductive plethysmography to evaluate breathing in infants at risk for postoperative apnea. Canadian Journal of Anaesthesia, 2008, 55, 739-747.	1.6	12
87	Control of an unstable load using visual feedback. , 2008, 2008, 2489-92.		2
88	A Bayesian approach to peptide identification using Accurate Mass and Time tags from LC-FTICR-MS proteomics experiments. , 2008, 2008, 3775-8.		1
89	Detecting the temporal extent of the impulse response function from intra-partum cardiotocography for normal and hypoxic fetuses. , 2008, 2008, 2797-800.		1
90	Decomposition of a Parallel Cascade Model For Ankle Dynamics Using Subspace Methods. Proceedings of the American Control Conference, 2007, , .	0.0	6

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91	Methods for peptide identification by spectral comparison. Proteome Science, 2007, 5, 3.	1.7	69
92	The protein microscope: incorporating mass spectrometry into cell biology. Nature Methods, 2007, 4, 783-784.	19.0	17
93	Real-Time Estimation of Intrinsic and Reflex Stiffness. IEEE Transactions on Biomedical Engineering, 2007, 54, 1875-1884.	4.2	27
94	Voluntary modulation of human stretch reflexes. Experimental Brain Research, 2007, 183, 201-213.	1.5	35
95	Quantitative Proteomics Analysis of the Secretory Pathway. Cell, 2006, 127, 1265-1281.	28.9	425
96	Real-Time Estimation of Intrinsic and Reflex Stiffness. , 2006, 2006, 292-5.		6
97	Real-Time Estimation of Intrinsic and Reflex Stiffness. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
98	Increasing peptide identification in tandem mass spectrometry through automatic function switching optimization. Journal of the American Society for Mass Spectrometry, 2005, 16, 1818-1826.	2.8	3
99	A Least-Squares Parameter Estimation Algorithm for Switched Hammerstein Systems With Applications to the VOR. IEEE Transactions on Biomedical Engineering, 2005, 52, 431-444.	4.2	57
100	Automated Estimation of the Phase Between Thoracic and Abdominal Movement Signals. IEEE Transactions on Biomedical Engineering, 2005, 52, 614-621.	4.2	23
101	Identification of intrinsic and reflex ankle stiffness components in stroke patients. Experimental Brain Research, 2005, 165, 422-434.	1.5	114
102	Elimination of Redundant Protein Identifications in High Throughput Proteomics. , 2005, 2005, 4803-6.		10
103	Multicomponent Internal Recalibration of an LCâˆ´FTICR-MS Analysis Employing a Partially Characterized Complex Peptide Mixture:Â Systematic and Random Errors. Analytical Chemistry, 2005, 77, 7246-7254.	6.5	24
104	Tandem MS analysis of brain clathrin-coated vesicles reveals their critical involvement in synaptic vesicle recycling. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 3833-3838.	7.1	277
105	A bootstrap method for structure detection of NARMAX models. International Journal of Control, 2004, 77, 132-143.	1.9	29
106	An object-oriented toolbox for linear and nonlinear system identification. , 2004, 2006, 514-7.		5
107	Automated detection of focal cortical dysplasia lesions using computational models of their MRI characteristics and texture analysis. NeuroImage, 2003, 19, 1748-1759.	4.2	125
108	NARMAX representation and identification of ankle dynamics. IEEE Transactions on Biomedical Engineering, 2003, 50, 70-81.	4.2	38

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109	The effects of long-term FES-assisted walking on intrinsic and reflex dynamic stiffness in spastic spinal-cord-injured subjects. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2002, 10, 280-289.	4.9	63
110	Computational Models of MRI Characteristics of Focal Cortical Dysplasia Improve Lesion Detection. NeuroImage, 2002, 17, 1755-1760.	4.2	67
111	The effect of locomotor training combined with functional electrical stimulation in chronic spinal cord injured subjects: walking and reflex studies. Brain Research Reviews, 2002, 40, 274-291.	9.0	170
112	Identification of Time-Varying Hammerstein Systems from Ensemble Data. Annals of Biomedical Engineering, 2001, 29, 619-635.	2.5	17
113	Separable Least Squares Identification of Nonlinear Hammerstein Models: Application to Stretch Reflex Dynamics. Annals of Biomedical Engineering, 2001, 29, 707-718.	2.5	113
114	A Bootstrap Method for Narmax Model Order Selection. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 329-332.	0.4	1
115	Modulation of Stretch Reflexes During Imposed Walking Movements of the Human Ankle. Journal of Neurophysiology, 1999, 81, 2893-2902.	1.8	35
116	Nonparametric Block-Structured Modeling of Lung Tissue Strip Mechanics. Annals of Biomedical Engineering, 1998, 26, 242-252.	2.5	38
117	An Adaptive Filter to Reduce Cardiogenic Oscillations on Esophageal Pressure Signals. Annals of Biomedical Engineering, 1998, 26, 260-267.	2.5	23
118	Identification of intrinsic and reflex contributions to human ankle stiffness dynamics. IEEE Transactions on Biomedical Engineering, 1997, 44, 493-504.	4.2	344
119	Generalized eigenvector algorithm for nonlinear system identification with non-white inputs. Annals of Biomedical Engineering, 1997, 25, 802-814.	2.5	12
120	Identification of time-varying stiffness dynamics of the human ankle joint during an imposed movement. Experimental Brain Research, 1997, 114, 71-85.	1.5	43
121	Identification of time-varying dynamics of the human triceps surae stretch reflex. Experimental Brain Research, 1993, 97, 115-127.	1.5	30
122	Identification of time-varying dynamics of the human triceps surae stretch reflex. Experimental Brain Research, 1993, 97, 128-138.	1.5	16
123	Identification of time-varying properties of the human triceps surae stretch reflex: II. rapid imposed movement. , 1992, , .		1
124	Identification of time-varying dynamics of the human triceps surae stretch reflex: I. rapid isometric contractions. , 1992, , .		1
125	Performance of ensemble time-varying system identification methods: Analog simulations and biological applications. , 1992, , .		0
126	Identification of time-varying biological systems from ensemble data (joint dynamics application). IEEE Transactions on Biomedical Engineering, 1992, 39, 1213-1225.	4.2	101

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127	Nonlinear identification of stretch reflex dynamics. Annals of Biomedical Engineering, 1988, 16, 79-94.	2.5	63
128	Position dependence of ankle joint dynamicsâ€"I. Passive mechanics. Journal of Biomechanics, 1986, 19, 727-735.	2.1	152
129	Position dependence of ankle joint dynamicsâ€"II. Active mechanics. Journal of Biomechanics, 1986, 19, 737-751.	2.1	85
130	Conduction of nervous impulses in spinal roots and peripheral nerves of dystrophic mice. Brain Research, 1978, 143, 71-85.	2.2	72