

# Craig G Rusin

## List of Publications by Year in descending order

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54  
papers

1,394  
citations

394390

19  
h-index

345203

36  
g-index

55  
all docs

55  
docs citations

55  
times ranked

1608  
citing authors

#	ARTICLE	IF	CITATIONS
1	Engineering Complex Dynamical Structures: Sequential Patterns and Desynchronization. <i>Science</i> , 2007, 316, 1886-1889.	12.6	232
2	A new algorithm for detecting central apnea in neonates. <i>Physiological Measurement</i> , 2012, 33, 1-17.	2.1	103
3	Zona glomerulosa cells of the mouse adrenal cortex are intrinsic electrical oscillators. <i>Journal of Clinical Investigation</i> , 2012, 122, 2046-2053.	8.2	96
4	The frequency response of cerebral autoregulation. <i>Journal of Applied Physiology</i> , 2013, 115, 52-56.	2.5	72
5	Secondary brain injury: Predicting and preventing insults. <i>Neuropharmacology</i> , 2019, 145, 145-152.	4.1	70
6	Prediction of imminent, severe deterioration of children with parallel circulations using real-time processing of physiologic data. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2016, 152, 171-177.	0.8	61
7	Anemia, Apnea of Prematurity, and Blood Transfusions. <i>Journal of Pediatrics</i> , 2012, 161, 417-421.e1.	1.8	57
8	Accurate Automated Apnea Analysis in Preterm Infants. <i>American Journal of Perinatology</i> , 2014, 31, 157-162.	1.4	44
9	Predicting Intracranial Pressure and Brain Tissue Oxygen Crises in Patients With Severe Traumatic Brain Injury. <i>Critical Care Medicine</i> , 2016, 44, 1754-1761.	0.9	43
10	Synchronization engineering: Theoretical framework and application to dynamical clustering. <i>Chaos</i> , 2008, 18, 026111.	2.5	41
11	Predicting the need for urgent intubation in a surgical/trauma intensive care unit. <i>Surgery</i> , 2013, 154, 1110-1116.	1.9	39
12	Positive end-expiratory pressure oscillation facilitates brain vascular reactivity monitoring. <i>Journal of Applied Physiology</i> , 2012, 113, 1362-1368.	2.5	36
13	Breath-by-breath analysis of cardiorespiratory interaction for quantifying developmental maturity in premature infants. <i>Journal of Applied Physiology</i> , 2012, 112, 859-867.	2.5	36
14	Continuous cerebral hemodynamic measurement during deep hypothermic circulatory arrest. <i>Biomedical Optics Express</i> , 2016, 7, 3461.	2.9	30
15	Engineering the synchronization of neuron action potentials using global time-delayed feedback stimulation. <i>Physical Review E</i> , 2011, 84, 066202.	2.1	27
16	Comparison of reduced models for blood flow using Runge-Kutta discontinuous Galerkin methods. <i>Applied Numerical Mathematics</i> , 2017, 115, 114-141.	2.1	26
17	Automated Prediction of Cardiorespiratory Deterioration in Patients With Single Ventricle. <i>Journal of the American College of Cardiology</i> , 2021, 77, 3184-3192.	2.8	25
18	Numerical method of characteristics for one-dimensional blood flow. <i>Journal of Computational Physics</i> , 2015, 294, 96-109.	3.8	24

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19	A Novel Electrocardiogram Algorithm Utilizing ST-Segment Instability for Detection of Cardiopulmonary Arrest in Single Ventricle Physiology. <i>Pediatric Critical Care Medicine</i> , 2017, 18, 44-53.	0.5	24
20	Reconstruction of two-dimensional phase dynamics from experiments on coupled oscillators. <i>Physical Review E</i> , 2011, 84, 046201.	2.1	22
21	Angiotensin II induces coordinated calcium bursts in aldosterone-producing adrenal rosettes. <i>Nature Communications</i> , 2020, 11, 1679.	12.8	20
22	Synchronization engineering: tuning the phase relationship between dissimilar oscillators using nonlinear feedback. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 2189-2204.	3.4	19
23	Elevated Diastolic Closing Margin Is Associated with Intraventricular Hemorrhage in Premature Infants. <i>Journal of Pediatrics</i> , 2016, 174, 52-56.	1.8	18
24	Does hypothermia impair cerebrovascular autoregulation in neonates during cardiopulmonary bypass?. <i>Paediatric Anaesthesia</i> , 2017, 27, 905-910.	1.1	18
25	Early experience with intravenous sotalol in children with and without congenital heart disease. <i>Heart Rhythm</i> , 2018, 15, 1862-1869.	0.7	18
26	Cardiovascular mechanics in the early stages of pulmonary hypertension: a computational study. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017, 16, 2093-2112.	2.8	17
27	Ontogeny of cerebrovascular critical closing pressure. <i>Pediatric Research</i> , 2015, 78, 71-75.	2.3	16
28	Hypotensive Response to IV Acetaminophen in Pediatric Cardiac Patients*. <i>Pediatric Critical Care Medicine</i> , 2019, 20, 527-533.	0.5	15
29	Short term evaluation of respiratory effort by premature infants supported with bubble nasal continuous airway pressure using Seattle-PAP and a standard bubble device. <i>PLoS ONE</i> , 2018, 13, e0193807.	2.5	15
30	Engineering of Synchronization and Clustering of a Population of Chaotic Chemical Oscillators. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 10212-10215.	13.8	14
31	Finding representative electrocardiogram beat morphologies with CUR. <i>Journal of Biomedical Informatics</i> , 2018, 77, 97-110.	4.3	13
32	The Ontogeny of Cerebrovascular Pressure Autoregulation in Premature Infants. <i>Acta Neurochirurgica Supplementum</i> , 2016, 122, 151-155.	1.0	13
33	A computational study of the Fontan circulation with fenestration or hepatic vein exclusion. <i>Computers in Biology and Medicine</i> , 2017, 89, 405-418.	7.0	11
34	Epinephrine syringe exchange events in a paediatric cardiovascular ICU: analysing the storm. <i>Cardiology in the Young</i> , 2018, 28, 409-415.	0.8	9
35	Framework for Engineering the Collective Behavior of Complex Rhythmic Systems. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 9416-9422.	3.7	7
36	An effective model of blood flow in capillary beds. <i>Microvascular Research</i> , 2015, 100, 40-47.	2.5	7

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37	A novel multimodal computational system using near-infrared spectroscopy to monitor cerebral oxygenation during assisted ventilation in CDH patients. <i>Journal of Pediatric Surgery</i> , 2016, 51, 38-43.	1.6	7
38	The Diastolic Closing Margin Is Associated with Intraventricular Hemorrhage in Premature Infants. <i>Acta Neurochirurgica Supplementum</i> , 2016, 122, 147-150.	1.0	7
39	A novel multimodal computational system using near-infrared spectroscopy predicts the need for ECMO initiation in neonates with congenital diaphragmatic hernia. <i>Journal of Pediatric Surgery</i> , 2018, 53, 152-158.	1.6	6
40	Heart rate variability changes and its association with the development of severe retinopathy of prematurity. <i>Journal of AAPOS</i> , 2018, 22, 371-375.	0.3	6
41	An effective model of cerebrovascular pressure reactivity and blood flow autoregulation. <i>Microvascular Research</i> , 2018, 115, 34-43.	2.5	5
42	Comparison of Laboratory and Hemodynamic Time Series Data Across Original, Alpha, and Delta Variants in Patients With Multisystem Inflammatory Syndrome in Children. <i>Pediatric Critical Care Medicine</i> , 2022, 23, e372-e381.	0.5	5
43	Observed and calculated cerebral critical closing pressure are highly correlated in preterm infants. <i>Pediatric Research</i> , 2019, 86, 242-246.	2.3	4
44	A robust Fourier-based method to measure pulse pressure variability. <i>Biomedical Signal Processing and Control</i> , 2020, 60, 101947.	5.7	4
45	The Ontogeny of Cerebrovascular Critical Closing Pressure. <i>Acta Neurochirurgica Supplementum</i> , 2016, 122, 249-253.	1.0	3
46	An extended DEIM algorithm for subset selection and class identification. <i>Machine Learning</i> , 2021, 110, 621-650.	5.4	2
47	CARDIAC SCREENING AFTER COVID-19 INFECTION IN CHILDREN: IS ELECTROCARDIOGRAM WARRANTED?. <i>Journal of the American College of Cardiology</i> , 2021, 77, 3184.	2.8	2
48	A Framework for Engineering the Collective Behavior of Complex Rhythmic Systems. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 9416.	3.7	2
49	Commentary: The patient is the focus, but the data are the key: Toward data-driven critical care environments. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2019, 158, 244-245.	0.8	0
50	Critical Closing Pressure by Diffuse Correlation Spectroscopy in a Neonatal Piglet Model. <i>Acta Neurochirurgica Supplementum</i> , 2021, 131, 295-299.	1.0	0
51	Novel Method of Calculating Pulse Pressure Variation to Predict Fluid Responsiveness to Transfusion in Very Low Birth Weight Infants. <i>Journal of Pediatrics</i> , 2021, 234, 265-268.e1.	1.8	0
52	Abstract 16851: ST Segment Variability as a Predictor of Clinical Deterioration in Hypoplastic Left Heart Syndrome. <i>Circulation</i> , 2014, 130, .	1.6	0
53	Abstract 18150: Prediction of Imminent Deterioration of Children after Stage I Palliation Using Real-Time Processing of Physiological Data. <i>Circulation</i> , 2014, 130, .	1.6	0
54	Abstract 13443: Multi-Center Independent Validation of an Automated Algorithm for Predicting Cardiorespiratory Deterioration Events in Single Ventricle Patients. <i>Circulation</i> , 2021, 144, .	1.6	0