# Craig G Rusin

List of Publications by Year
in descending order



| 54 | 1,394 | 394421 | 345221 |
|---|---|---|---|
| papers | citations | 19 h-index | 36 g-index |

| 55 | 55 | 55 | 1608 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

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

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | A Novel Electrocardiogram Algorithm Utilizing ST-Segment Instability for Detection of Cardiopulmonary Arrest in Single Ventricle Physiology. Pediatric Critical Care Medicine, 2017, 18, 44-53. | 0.5 | 24 |
| 20 | Reconstruction of two-dimensional phase dynamics from experiments on coupled oscillators. Physical Review E, 2011, 84, 046201. | 2.1 | 22 |
| 21 | Angiotensin II induces coordinated calcium bursts in aldosterone-producing adrenal rosettes. Nature Communications, 2020, 11, 1679. | 12.8 | 20 |
| 22 | Synchronization engineering: tuning the phase relationship between dissimilar oscillators using nonlinear feedback. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2189-2204. | 3.4 | 19 |
| 23 | Elevated Diastolic Closing Margin Is Associated with Intraventricular Hemorrhage in Premature Infants. Journal of Pediatrics, 2016, 174, 52-56. | 1.8 | 18 |
| 24 | Does hypothermia impair cerebrovascular autoregulation in neonates during cardiopulmonary bypass?. Paediatric Anaesthesia, 2017, 27, 905-910. | 1.1 | 18 |
| 25 | Early experience with intravenous sotalol in children with and without congenital heart disease. Heart Rhythm, 2018, 15, 1862-1869. | 0.7 | 18 |
| 26 | Cardiovascular mechanics in the early stages of pulmonary hypertension: a computational study. Biomechanics and Modeling in Mechanobiology, 2017, 16, 2093-2112. | 2.8 | 17 |
| 27 | Ontogeny of cerebrovascular critical closing pressure. Pediatric Research, 2015, 78, 71-75. | 2.3 | 16 |
| 28 | Hypotensive Response to IV Acetaminophen in Pediatric Cardiac Patients*. Pediatric Critical Care Medicine, 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. PLoS ONE, 2018, 13, e0193807. | 2.5 | 15 |
| 30 | Engineering of Synchronization and Clustering of a Population of Chaotic Chemical Oscillators. Angewandte Chemie - International Edition, 2011, 50, 10212-10215. | 13.8 | 14 |
| 31 | Finding representative electrocardiogram beat morphologies with CUR. Journal of Biomedical Informatics, 2018, 77, 97-110. | 4.3 | 13 |
| 32 | The Ontogeny of Cerebrovascular Pressure Autoregulation in Premature Infants. Acta Neurochirurgica Supplementum, 2016, 122, 151-155. | 1.0 | 13 |
| 33 | A computational study of the Fontan circulation with fenestration or hepatic vein exclusion. Computers in Biology and Medicine, 2017, 89, 405-418. | 7.0 | 11 |
| 34 | Epinephrine syringe exchange events in a paediatric cardiovascular ICU: analysing the storm. Cardiology in the Young, 2018, 28, 409-415. | 0.8 | 9 |
| 35 | Framework for Engineering the Collective Behavior of Complex Rhythmic Systems. Industrial & Engineering Chemistry Research, 2009, 48, 9416-9422. | 3.7 | 7 |
| 36 | An effective model of blood flow in capillary beds. Microvascular Research, 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. Journal of Pediatric Surgery, 2016, 51, 38-43. | 1.6 | 7 |
| 38 | The Diastolic Closing Margin Is Associated with Intraventricular Hemorrhage in Premature Infants. Acta Neurochirurgica Supplementum, 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. Journal of Pediatric Surgery, 2018, 53, 152-158. | 1.6 | 6 |
| 40 | Heart rate variability changes and its association with the development of severe retinopathy of prematurity. Journal of AAPOS, 2018, 22, 371-375. | 0.3 | 6 |
| 41 | An effective model of cerebrovascular pressure reactivity and blood flow autoregulation. Microvascular Research, 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. Pediatric Critical Care Medicine, 2022, 23, e372-e381. | 0.5 | 5 |
| 43 | Observed and calculated cerebral critical closing pressure are highly correlated in preterm infants. Pediatric Research, 2019, 86, 242-246. | 2.3 | 4 |
| 44 | A robust Fourier-based method to measure pulse pressure variability. Biomedical Signal Processing and Control, 2020, 60, 101947. | 5.7 | 4 |
| 45 | The Ontogeny of Cerebrovascular Critical Closing Pressure. Acta Neurochirurgica Supplementum, 2016, 122, 249-253. | 1.0 | 3 |
| 46 | An extended DEIM algorithm for subset selection and class identification. Machine Learning, 2021, 110, 621-650. | 5.4 | 2 |
| 47 | CARDIAC SCREENING AFTER COVID-19 INFECTION IN CHILDREN: IS ELECTROCARDIOGRAM WARRANTED?. Journal of the American College of Cardiology, 2021, 77, 3184. | 2.8 | 2 |
| 48 | A Framework for Engineering the Collective Behavior of Complex Rhythmic Systems. Industrial & Engineering Chemistry Research, 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. Journal of Thoracic and Cardiovascular Surgery, 2019, 158, 244-245. | 0.8 | 0 |
| 50 | Critical Closing Pressure by Diffuse Correlation Spectroscopy in a Neonatal Piglet Model. Acta Neurochirurgica Supplementum, 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. Journal of Pediatrics, 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. Circulation, 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. Circulation, 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. Circulation, 2021, 144, . | 1.6 | 0 |