

# Zhilin Qu

## List of Publications by Citations

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156  
papers

8,389  
citations

54  
h-index

87  
g-index

172  
ext. papers

9,701  
ext. citations

5.4  
avg. IF

6.08  
L-index

#	Paper	IF	Citations
156	From pulsus to pulseless: the saga of cardiac alternans. <i>Circulation Research</i> , <b>2006</b> , 98, 1244-53	15.7	349
155	Mechanisms of discordant alternans and induction of reentry in simulated cardiac tissue. <i>Circulation</i> , <b>2000</b> , 102, 1664-70	16.7	316
154	A rabbit ventricular action potential model replicating cardiac dynamics at rapid heart rates. <i>Biophysical Journal</i> , <b>2008</b> , 94, 392-410	2.9	313
153	The dynamics of cardiac fibrillation. <i>Circulation</i> , <b>2005</b> , 112, 1232-40	16.7	253
152	Early afterdepolarizations and cardiac arrhythmias. <i>Heart Rhythm</i> , <b>2010</b> , 7, 1891-9	6.7	233
151	So little source, so much sink: requirements for afterdepolarizations to propagate in tissue. <i>Biophysical Journal</i> , <b>2010</b> , 99, 1408-15	2.9	224
150	Spatiotemporal heterogeneity in the induction of ventricular fibrillation by rapid pacing: importance of cardiac restitution properties. <i>Circulation Research</i> , <b>1999</b> , 84, 1318-31	15.7	196
149	Ventricular fibrillation: how do we stop the waves from breaking?. <i>Circulation Research</i> , <b>2000</b> , 87, 1103-7	15.7	187
148	Synchronization of chaotic early afterdepolarizations in the genesis of cardiac arrhythmias. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 2983-8	11.5	184
147	Cardiac fibrosis and arrhythmogenesis: the road to repair is paved with perils. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2014</b> , 70, 83-91	5.8	177
146	An advanced algorithm for solving partial differential equation in cardiac conduction. <i>IEEE Transactions on Biomedical Engineering</i> , <b>1999</b> , 46, 1166-8	5	168
145	Cardiac electrical restitution properties and stability of reentrant spiral waves: a simulation study. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>1999</b> , 276, H269-83	5.2	159
144	Alternans and arrhythmias: from cell to heart. <i>Circulation Research</i> , <b>2011</b> , 108, 98-112	15.7	137
143	Regulation of the mammalian cell cycle: a model of the G1-to-S transition. <i>American Journal of Physiology - Cell Physiology</i> , <b>2003</b> , 284, C349-64	5.4	135
142	Origins of spiral wave meander and breakup in a two-dimensional cardiac tissue model. <i>Annals of Biomedical Engineering</i> , <b>2000</b> , 28, 755-71	4.7	131
141	Scroll wave dynamics in a three-dimensional cardiac tissue model: roles of restitution, thickness, and fiber rotation. <i>Biophysical Journal</i> , <b>2000</b> , 78, 2761-75	2.9	128
140	Spatially discordant alternans in cardiac tissue: role of calcium cycling. <i>Circulation Research</i> , <b>2006</b> , 99, 520-7	15.7	127

139	Nonlinear and Stochastic Dynamics in the Heart. <i>Physics Reports</i> , <b>2014</b> , 543, 61-162	27.7	121
138	Electrophysiology of Hypokalemia and Hyperkalemia. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2017</b> , 10,	6.4	118
137	Effects of fibroblast-myocyte coupling on cardiac conduction and vulnerability to reentry: A computational study. <i>Heart Rhythm</i> , <b>2009</b> , 6, 1641-9	6.7	118
136	Early afterdepolarizations in cardiac myocytes: beyond reduced repolarization reserve. <i>Cardiovascular Research</i> , <b>2013</b> , 99, 6-15	9.9	106
135	Bifurcation and chaos in a model of cardiac early afterdepolarizations. <i>Physical Review Letters</i> , <b>2009</b> , 102, 258103	7.4	102
134	Role of pectinate muscle bundles in the generation and maintenance of intra-atrial reentry: potential implications for the mechanism of conversion between atrial fibrillation and atrial flutter. <i>Circulation Research</i> , <b>1998</b> , 83, 448-62	15.7	100
133	Increased susceptibility of aged hearts to ventricular fibrillation during oxidative stress. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2009</b> , 297, H1594-605	5.2	97
132	Dynamics of the cell cycle: checkpoints, sizers, and timers. <i>Biophysical Journal</i> , <b>2003</b> , 85, 3600-11	2.9	97
131	Differential conditions for early after-depolarizations and triggered activity in cardiomyocytes derived from transgenic LQT1 and LQT2 rabbits. <i>Journal of Physiology</i> , <b>2012</b> , 590, 1171-80	3.9	91
130	Suppression of re-entrant and multifocal ventricular fibrillation by the late sodium current blocker ranolazine. <i>Journal of the American College of Cardiology</i> , <b>2011</b> , 57, 366-75	15.1	91
129	Spark-induced sparks as a mechanism of intracellular calcium alternans in cardiac myocytes. <i>Circulation Research</i> , <b>2010</b> , 106, 1582-91	15.7	90
128	Dynamic origin of spatially discordant alternans in cardiac tissue. <i>Biophysical Journal</i> , <b>2007</b> , 92, 448-60	2.9	85
127	Multi-scale modeling in biology: how to bridge the gaps between scales?. <i>Progress in Biophysics and Molecular Biology</i> , <b>2011</b> , 107, 21-31	4.7	81
126	Cardiac alternans induced by fibroblast-myocyte coupling: mechanistic insights from computational models. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2009</b> , 297, H775-84	5.2	77
125	Genesis of phase 3 early afterdepolarizations and triggered activity in acquired long-QT syndrome. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2011</b> , 4, 103-11	6.4	75
124	Intracellular Ca dynamics in ventricular fibrillation. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2004</b> , 286, H1836-44	5.2	75
123	Arrhythmogenic consequences of myofibroblast-myocyte coupling. <i>Cardiovascular Research</i> , <b>2012</b> , 93, 242-51	9.9	74
122	Chaos in the genesis and maintenance of cardiac arrhythmias. <i>Progress in Biophysics and Molecular Biology</i> , <b>2011</b> , 105, 247-57	4.7	73

121	T-wave alternans and arrhythmogenesis in cardiac diseases. <i>Frontiers in Physiology</i> , <b>2010</b> , 1, 154	4.6	73
120	Modifying L-type calcium current kinetics: consequences for cardiac excitation and arrhythmia dynamics. <i>Biophysical Journal</i> , <b>2008</b> , 94, 411-23	2.9	72
119	Intracellular Ca alternans: coordinated regulation by sarcoplasmic reticulum release, uptake, and leak. <i>Biophysical Journal</i> , <b>2008</b> , 95, 3100-10	2.9	71
118	Nonlinear dynamics of cardiac excitation-contraction coupling: an iterated map study. <i>Physical Review E</i> , <b>2007</b> , 75, 011927	2.4	70
117	Calcium-voltage coupling in the genesis of early and delayed afterdepolarizations in cardiac myocytes. <i>Biophysical Journal</i> , <b>2015</b> , 108, 1908-21	2.9	69
116	Molecular Basis of Hypokalemia-Induced Ventricular Fibrillation. <i>Circulation</i> , <b>2015</b> , 132, 1528-1537	16.7	69
115	Mechanisms of ventricular arrhythmias: from molecular fluctuations to electrical turbulence. <i>Annual Review of Physiology</i> , <b>2015</b> , 77, 29-55	23.1	68
114	"Good enough solutions" and the genetics of complex diseases. <i>Circulation Research</i> , <b>2012</b> , 111, 493-504	15.7	68
113	Irregularly appearing early afterdepolarizations in cardiac myocytes: random fluctuations or dynamical chaos?. <i>Biophysical Journal</i> , <b>2010</b> , 99, 765-73	2.9	64
112	Systems biology approaches to metabolic and cardiovascular disorders: network perspectives of cardiovascular metabolism. <i>Journal of Lipid Research</i> , <b>2006</b> , 47, 2355-66	6.3	62
111	Effects of Na(+) channel and cell coupling abnormalities on vulnerability to reentry: a simulation study. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2004</b> , 286, H1310-21	5.2	61
110	Electrical restitution and cardiac fibrillation. <i>Journal of Cardiovascular Electrophysiology</i> , <b>2002</b> , 13, 292-5	2.7	61
109	Electrophysiological heterogeneity and stability of reentry in simulated cardiac tissue. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2001</b> , 280, H535-45	5.2	61
108	Protective role of transient pore openings in calcium handling by cardiac mitochondria. <i>Journal of Biological Chemistry</i> , <b>2011</b> , 286, 34851-7	5.4	58
107	Spatiotemporal Chaos in a Simulated Ring of Cardiac Cells. <i>Physical Review Letters</i> , <b>1997</b> , 78, 1387-1390	7.4	58
106	A simulation study of the effects of cardiac anatomy in ventricular fibrillation. <i>Journal of Clinical Investigation</i> , <b>2004</b> , 113, 686-93	15.9	56
105	Criticality in intracellular calcium signaling in cardiac myocytes. <i>Biophysical Journal</i> , <b>2012</b> , 102, 2433-42	2.9	55
104	Dynamics of reentry around a circular obstacle in cardiac tissue. <i>Physical Review E</i> , <b>1998</b> , 58, 6355-6358	2.4	55

103	Mother rotors and the mechanisms of D600-induced type 2 ventricular fibrillation. <i>Circulation</i> , <b>2004</b> , 110, 2110-8	16.7	54
102	Perspective: a dynamics-based classification of ventricular arrhythmias. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2015</b> , 82, 136-52	5.8	51
101	Calcium alternans in cardiac myocytes: order from disorder. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2013</b> , 58, 100-9	5.8	51
100	Potassium currents in the heart: functional roles in repolarization, arrhythmia and therapeutics. <i>Journal of Physiology</i> , <b>2017</b> , 595, 2229-2252	3.9	51
99	Shaping a new $Ca^{2+}$ conductance to suppress early afterdepolarizations in cardiac myocytes. <i>Journal of Physiology</i> , <b>2011</b> , 589, 6081-92	3.9	51
98	Role of the transient outward potassium current in the genesis of early afterdepolarizations in cardiac cells. <i>Cardiovascular Research</i> , <b>2012</b> , 95, 308-16	9.9	51
97	Critical mass hypothesis revisited: role of dynamical wave stability in spontaneous termination of cardiac fibrillation. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2006</b> , 290, H255-63	5.2	49
96	Computational modeling and numerical methods for spatiotemporal calcium cycling in ventricular myocytes. <i>Frontiers in Physiology</i> , <b>2012</b> , 3, 114	4.6	47
95	Bi-stable wave propagation and early afterdepolarization-mediated cardiac arrhythmias. <i>Heart Rhythm</i> , <b>2012</b> , 9, 115-22	6.7	44
94	Vulnerable window for conduction block in a one-dimensional cable of cardiac cells, 1: single extrasystoles. <i>Biophysical Journal</i> , <b>2006</b> , 91, 793-804	2.9	44
93	Electrical refractory period restitution and spiral wave reentry in simulated cardiac tissue. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2002</b> , 283, H448-60	5.2	44
92	Glycolytic oscillations in isolated rabbit ventricular myocytes. <i>Journal of Biological Chemistry</i> , <b>2008</b> , 283, 36321-7	5.4	42
91	T-tubule disruption promotes calcium alternans in failing ventricular myocytes: mechanistic insights from computational modeling. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2015</b> , 79, 32-41	5.8	41
90	Multisite phosphorylation and network dynamics of cyclin-dependent kinase signaling in the eukaryotic cell cycle. <i>Biophysical Journal</i> , <b>2004</b> , 86, 3432-43	2.9	40
89	Simulation Methods and Validation Criteria for Modeling Cardiac Ventricular Electrophysiology. <i>PLoS ONE</i> , <b>2014</b> , 9, e114494	3.7	39
88	Selective inhibition of late sodium current suppresses ventricular tachycardia and fibrillation in intact rat hearts. <i>Heart Rhythm</i> , <b>2014</b> , 11, 492-501	6.7	38
87	Calcium alternans in a couplon network model of ventricular myocytes: role of sarcoplasmic reticulum load. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2012</b> , 303, H341-52	5.2	38
86	Coexistence of multiple spiral waves with independent frequencies in a heterogeneous excitable medium. <i>Physical Review E</i> , <b>2001</b> , 63, 031905	2.4	38

85	From local to global spatiotemporal chaos in a cardiac tissue model. <i>Physical Review E</i> , <b>2000</b> , 61, 727-32	2.4	38
84	Synchronization of early afterdepolarizations and arrhythmogenesis in heterogeneous cardiac tissue models. <i>Biophysical Journal</i> , <b>2012</b> , 103, 365-73	2.9	37
83	Delayed afterdepolarizations generate both triggers and a vulnerable substrate promoting reentry in cardiac tissue. <i>Heart Rhythm</i> , <b>2015</b> , 12, 2115-24	6.7	36
82	Mitochondrial oscillations and waves in cardiac myocytes: insights from computational models. <i>Biophysical Journal</i> , <b>2010</b> , 98, 1428-38	2.9	36
81	Short-term cardiac memory and mother rotor fibrillation. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2007</b> , 292, H180-9	5.2	35
80	A unified theory of calcium alternans in ventricular myocytes. <i>Scientific Reports</i> , <b>2016</b> , 6, 35625	4.9	34
79	Effects of Na(+) and K(+) channel blockade on vulnerability to and termination of fibrillation in simulated normal cardiac tissue. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2005</b> , 289, H1692-701	5.2	34
78	General Principles for the Validation of Proarrhythmia Risk Prediction Models: An Extension of the CiPA In Silico Strategy. <i>Clinical Pharmacology and Therapeutics</i> , <b>2020</b> , 107, 102-111	6.1	34
77	Complex excitation dynamics underlie polymorphic ventricular tachycardia in a transgenic rabbit model of long QT syndrome type 1. <i>Heart Rhythm</i> , <b>2015</b> , 12, 220-8	6.7	32
76	Increased vulnerability to inducible atrial fibrillation caused by partial cellular uncoupling with heptanol. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2002</b> , 283, H1116-22	5.2	32
75	Targeting the late component of the cardiac L-type Ca <sup>2+</sup> current to suppress early afterdepolarizations. <i>Journal of General Physiology</i> , <b>2015</b> , 145, 395-404	3.4	31
74	Dynamics of early afterdepolarization-mediated triggered activity in cardiac monolayers. <i>Biophysical Journal</i> , <b>2012</b> , 102, 2706-14	2.9	31
73	Dynamics and cardiac arrhythmias. <i>Journal of Cardiovascular Electrophysiology</i> , <b>2006</b> , 17, 1042-9	2.7	31
72	Linking cell division to cell growth in a spatiotemporal model of the cell cycle. <i>Journal of Theoretical Biology</i> , <b>2006</b> , 241, 120-33	2.3	31
71	Effects of simulated ischemia on spiral wave stability. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2001</b> , 280, H1667-73	5.2	30
70	Diffusion-Induced Vortex Filament Instability in 3-Dimensional Excitable Media. <i>Physical Review Letters</i> , <b>1999</b> , 83, 2668-2671	7.4	30
69	Period-doubling bifurcation in an array of coupled stochastically excitable elements subjected to global periodic forcing. <i>Physical Review Letters</i> , <b>2009</b> , 103, 044102	7.4	29
68	Mitochondrial Ca Influx Contributes to Arrhythmic Risk in Nonischemic Cardiomyopathy. <i>Journal of the American Heart Association</i> , <b>2018</b> , 7,	6	28

67	Coordination of cell growth and cell division: a mathematical modeling study. <i>Journal of Cell Science</i> , <b>2004</b> , 117, 4199-207	5.3	26
66	Mechanisms linking T-wave alternans to spontaneous initiation of ventricular arrhythmias in rabbit models of long QT syndrome. <i>Journal of Physiology</i> , <b>2018</b> , 596, 1341-1355	3.9	25
65	Linking flickering to waves and whole-cell oscillations in a mitochondrial network model. <i>Biophysical Journal</i> , <b>2011</b> , 101, 2102-11	2.9	25
64	Vulnerable window for conduction block in a one-dimensional cable of cardiac cells, 2: multiple extrasystoles. <i>Biophysical Journal</i> , <b>2006</b> , 91, 805-15	2.9	25
63	Directed fusion of cardiac spheroids into larger heterocellular microtissues enables investigation of cardiac action potential propagation via cardiac fibroblasts. <i>PLoS ONE</i> , <b>2018</b> , 13, e0196714	3.7	25
62	Mechanisms and determinants of ultralong action potential duration and slow rate-dependence in cardiac myocytes. <i>PLoS ONE</i> , <b>2012</b> , 7, e43587	3.7	23
61	Spontaneous initiation of premature ventricular complexes and arrhythmias in type 2 long QT syndrome. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2016</b> , 311, H1470-H1484	5.2	22
60	Dispersion of refractoriness and induction of reentry due to chaos synchronization in a model of cardiac tissue. <i>Physical Review Letters</i> , <b>2007</b> , 99, 118101	7.4	22
59	Repolarization reserve evolves dynamically during the cardiac action potential: effects of transient outward currents on early afterdepolarizations. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2015</b> , 8, 694-702	6.4	21
58	The emergence of subcellular pacemaker sites for calcium waves and oscillations. <i>Journal of Physiology</i> , <b>2013</b> , 591, 5305-20	3.9	21
57	Dynamical effects of diffusive cell coupling on cardiac excitation and propagation: a simulation study. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2004</b> , 287, H2803-12	5.2	21
56	Transverse tubular network structures in the genesis of intracellular calcium alternans and triggered activity in cardiac cells. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2018</b> , 114, 288-299	5.8	21
55	Spatially Discordant Alternans and Arrhythmias in Tachypacing-Induced Cardiac Myopathy in Transgenic LQT1 Rabbits: The Importance of IKs and Ca <sup>2+</sup> Cycling. <i>PLoS ONE</i> , <b>2015</b> , 10, e0122754	3.7	20
54	Roles of protein ubiquitination and degradation kinetics in biological oscillations. <i>PLoS ONE</i> , <b>2012</b> , 7, e34616	3.7	20
53	Signal transduction network motifs and biological memory. <i>Journal of Theoretical Biology</i> , <b>2007</b> , 246, 755-61	2.3	20
52	Hysteresis and cell cycle transitions: how crucial is it?. <i>Biophysical Journal</i> , <b>2005</b> , 88, 1626-34	2.9	20
51	Long-Lasting Sparks: Multi-Metastability and Release Competition in the Calcium Release Unit Network. <i>PLoS Computational Biology</i> , <b>2016</b> , 12, e1004671	5	20
50	Stochastic initiation and termination of calcium-mediated triggered activity in cardiac myocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, E270-E279	11.5	18

49	Oxidative stress, fibrosis, and early afterdepolarization-mediated cardiac arrhythmias. <i>Frontiers in Physiology</i> , <b>2013</b> , 4, 19	4.6	17
48	Chronic nicotine in hearts with healed ventricular myocardial infarction promotes atrial flutter that resembles typical human atrial flutter. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2005</b> , 288, H2878-86	5.2	17
47	Ablating atrial fibrillation: A translational science perspective for clinicians. <i>Heart Rhythm</i> , <b>2016</b> , 13, 1868-77	6.7	16
46	The effects of cascade length, kinetics and feedback loops on biological signal transduction dynamics in a simplified cascade model. <i>Physical Biology</i> , <b>2009</b> , 6, 016007	3	16
45	Memory-Induced Chaos in Cardiac Excitation. <i>Physical Review Letters</i> , <b>2017</b> , 118, 138101	7.4	15
44	R-From-T as a Common Mechanism of Arrhythmia Initiation in Long QT Syndromes. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2019</b> , 12, e007571	6.4	15
43	Acute reversal of phospholamban inhibition facilitates the rhythmic whole-cell propagating calcium waves in isolated ventricular myocytes. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2015</b> , 80, 126-35	5.8	14
42	Vulnerability to re-entry in simulated two-dimensional cardiac tissue: effects of electrical restitution and stimulation sequence. <i>Chaos</i> , <b>2007</b> , 17, 043115	3.3	14
41	Determinants of early afterdepolarization properties in ventricular myocyte models. <i>PLoS Computational Biology</i> , <b>2018</b> , 14, e1006382	5	14
40	Electrophysiology of Heart Failure Using a Rabbit Model: From the Failing Myocyte to Ventricular Fibrillation. <i>PLoS Computational Biology</i> , <b>2016</b> , 12, e1004968	5	13
39	Pro- and antiarrhythmic effects of ATP-sensitive potassium current activation on reentry during early afterdepolarization-mediated arrhythmias. <i>Heart Rhythm</i> , <b>2013</b> , 10, 575-82	6.7	12
38	Drifting dynamics of dense and sparse spiral waves in heterogeneous excitable media. <i>Physical Review E</i> , <b>2009</b> , 79, 036212	2.4	12
37	A kinematic study of spiral wave drift due to an electric field. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2003</b> , 308, 179-186	2.3	12
36	A Dynamical Threshold for Cardiac Delayed Afterdepolarization-Mediated Triggered Activity. <i>Biophysical Journal</i> , <b>2016</b> , 111, 2523-2533	2.9	11
35	Concomitant SK current activation and sodium current inhibition cause J wave syndrome. <i>JCI Insight</i> , <b>2018</b> , 3,	9.9	11
34	Transient Outward K Current (I) Underlies the Right Ventricular Initiation of Polymorphic Ventricular Tachycardia in a Transgenic Rabbit Model of Long-QT Syndrome Type 1. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2018</b> , 11, e005414	6.4	11
33	Multiscale Determinants of Delayed Afterdepolarization Amplitude in Cardiac Tissue. <i>Biophysical Journal</i> , <b>2017</b> , 112, 1949-1961	2.9	10
32	Memory-induced nonlinear dynamics of excitation in cardiac diseases. <i>Physical Review E</i> , <b>2018</b> , 97, 042414	4.4	10



31	Resonance drifts of spiral waves on media of periodic excitability. <i>Physical Review E</i> , <b>2012</b> , 85, 046216	2.4	10
30	Coupled Iterated Map Models of Action Potential Dynamics in a One-dimensional Cable of Cardiac Cells. <i>New Journal of Physics</i> , <b>2008</b> , 10, 55001-55024	2.9	8
29	The chicken or the egg? Voltage and calcium dynamics in the heart. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2007</b> , 293, H2054-5	5.2	8
28	Spatially Discordant Repolarization Alternans in the Absence of Conduction Velocity Restitution. <i>Biophysical Journal</i> , <b>2020</b> , 118, 2574-2587	2.9	7
27	The pinwheel experiment revisited: effects of cellular electrophysiological properties on vulnerability to cardiac reentry. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2007</b> , 293, H1781-90	5.2	7
26	A Spatiotemporal Ventricular Myocyte Model Incorporating Mitochondrial Calcium Cycling. <i>Biophysical Journal</i> , <b>2019</b> , 117, 2349-2360	2.9	6
25	Small-conductance Ca-activated K channels promote J-wave syndrome and phase 2 reentry. <i>Heart Rhythm</i> , <b>2020</b> , 17, 1582-1590	6.7	5
24	Late I Blocker GS967 Suppresses Polymorphic Ventricular Tachycardia in a Transgenic Rabbit Model of Long QT Type 2. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2020</b> , 13, e006875	6.4	5
23	Delayed global feedback in the genesis and stability of spatiotemporal excitation patterns in paced biological excitable media. <i>PLoS Computational Biology</i> , <b>2020</b> , 16, e1007931	5	5
22	Mechanisms of Premature Ventricular Complexes Caused by QT Prolongation. <i>Biophysical Journal</i> , <b>2021</b> , 120, 352-369	2.9	5
21	Activation of TRPC (Transient Receptor Potential Canonical) Channel Currents in Iron Overloaded Cardiac Myocytes. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2021</b> , 14, e009291	6.4	5
20	Supernormal Excitability Causes Alternans, Block, Wavebreak and Reentry in Cardiac Tissue. <i>Biophysical Journal</i> , <b>2011</b> , 100, 435a	2.9	3
19	Bifurcations Caused by Feedback between Voltage and Intracellular Ion Concentrations in Ventricular Myocytes. <i>Physical Review Letters</i> , <b>2019</b> , 123, 218101	7.4	3
18	Relationship Between Cardiac Alternans, Calcium Cycling, and Ventricular Arrhythmias <b>2019</b> , 364-374		2
17	Multiscale Consequences of Spontaneous Calcium Release on Cardiac Delayed Afterdepolarizations. <i>Biophysical Journal</i> , <b>2015</b> , 108, 264a	2.9	2
16	Short-Long Heart Rate Variation Increases Dispersion of Action Potential Duration in Long QT Type 2 Transgenic Rabbit Model. <i>Scientific Reports</i> , <b>2019</b> , 9, 14849	4.9	2
15	Network Dynamics in Cardiac Electrophysiology. <i>Springer Series in Biophysics</i> , <b>2014</b> , 243-260		2
14	Stabilizer Cell Gene Therapy: A Less-Is-More Strategy to Prevent Cardiac Arrhythmias. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2020</b> , 13, e008420	6.4	2

13	Simultaneous activation of the small conductance calcium-activated potassium current by acetylcholine and inhibition of sodium current by ajmaline cause J-wave syndrome in Langendorff-perfused rabbit ventricles. <i>Heart Rhythm</i> , <b>2021</b> , 18, 98-108	6.7	2
12	The transient outward potassium current plays a key role in spiral wave breakup in ventricular tissue. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2021</b> , 320, H826-H837	5.2	2
11	Control of voltage-driven instabilities in cardiac myocytes with memory. <i>Chaos</i> , <b>2018</b> , 28, 113122	3.3	2
10	Why Is Only Type 1 Electrocardiogram Diagnostic of Brugada Syndrome? Mechanistic Insights From Computer Modeling.. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2021</b> , CIRCEP121010365	6.4	1
9	Mitochondrial Contributions in the Genesis of Delayed Afterdepolarizations in Ventricular Myocytes. <i>Frontiers in Physiology</i> , <b>2021</b> , 12, 744023	4.6	1
8	Determinants of early afterdepolarization properties in ventricular myocyte models		1
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5	Bursting and complex oscillatory patterns in a gene regulatory network model. <i>Chaos, Solitons and Fractals</i> , <b>2021</b> , 152, 111348	9.3	1
4	Mitochondrial depolarization promotes calcium alternans: Mechanistic insights from a ventricular myocyte model. <i>PLoS Computational Biology</i> , <b>2021</b> , 17, e1008624	5	1
3	Multiscale Nonlinear Dynamics in Cardiac Electrophysiology: From Sparks to Sudden Death257-275		1
2	Mechanisms of phase-3 early afterdepolarizations and triggered activities in ventricular myocyte models. <i>Physiological Reports</i> , <b>2021</b> , 9, e14883	2.6	0
1	Mechanisms of Arrhythmogenicity of Hypertrophic Cardiomyopathy-Associated Troponin T () Variant I79N.. <i>Frontiers in Cell and Developmental Biology</i> , <b>2021</b> , 9, 787581	5.7	0