

Shigeo Sato

List of Publications by Year in descending order

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57
papers

643
citations

933447

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59
all docs

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docs citations

59
times ranked

820
citing authors

#	ARTICLE	IF	CITATIONS
1	Designing the human-centric IoT society: Cooperative industry-academic strategies for creative future connection. <i>Nonlinear Theory and Its Applications IEICE</i> , 2022, 13, 197-202.	0.6	0
2	An investigation of the relationship between numerical precision and performance of Q-learning for hardware implementation. <i>Nonlinear Theory and Its Applications IEICE</i> , 2022, 13, 427-433.	0.6	0
3	Analog-circuit implementation of multiplicative spike-timing-dependent plasticity with linear decay. <i>Nonlinear Theory and Its Applications IEICE</i> , 2021, 12, 685-694.	0.6	4
4	Learning Rule for a Quantum Neural Network Inspired by Hebbian Learning. <i>IEICE Transactions on Information and Systems</i> , 2021, E104.D, 237-245.	0.7	2
5	Computational Efficiency of a Modular Reservoir Network for Image Recognition. <i>Frontiers in Computational Neuroscience</i> , 2021, 15, 594337.	2.1	2
6	Electron-cyclotron resonance Ar plasma-induced electrical activation of B atoms without substrate heating in B doped Si epitaxial films on Si(100). <i>Materials Science in Semiconductor Processing</i> , 2020, 107, 104823.	4.0	1
7	Polydimethylsiloxane microfluidic films for in vitro engineering of small-scale neuronal networks. <i>Japanese Journal of Applied Physics</i> , 2020, 59, 117001.	1.5	4
8	Modular networks of spiking neurons for applications in time-series information processing. <i>Nonlinear Theory and Its Applications IEICE</i> , 2020, 11, 590-600.	0.6	1
9	Mean-field analysis of directed modular networks. <i>Chaos</i> , 2019, 29, 013142.	2.5	3
10	Quantitative Analysis of Dynamical Complexity in Cultured Neuronal Network Models for Reservoir Computing Applications. , 2019, , .		1
11	An Izhikevich Model Neuron MOS Circuit for Low Voltage Operation. <i>Lecture Notes in Computer Science</i> , 2019, , 718-723.	1.3	4
12	(Invited) Low-Energy Plasma Enhanced Chemical Vapor Deposition and In-Situ Doping for Junction Formation in Group-IV Semiconductor Devices. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0
13	Impact of modular organization on dynamical richness in cortical networks. <i>Science Advances</i> , 2018, 4, eaau4914.	10.3	74
14	Electrical properties and B depth profiles of in-situ B doped Si films grown by ECR Ar plasma CVD without substrate heating. <i>Materials Science in Semiconductor Processing</i> , 2017, 70, 50-54.	4.0	2
15	Analogue spin-orbit torque device for artificial-neural-network-based associative memory operation. <i>Applied Physics Express</i> , 2017, 10, 013007.	2.4	146
16	Silicon-Carbon alloy film formation on Si(100) using SiH ₄ and CH ₄ reaction under low-energy ECR Ar plasma irradiation. <i>Materials Science in Semiconductor Processing</i> , 2017, 70, 188-192.	4.0	0
17	Carrier properties of B atomic-layer-doped Si films grown by ECR Ar plasma-enhanced CVD without substrate heating. <i>Science and Technology of Advanced Materials</i> , 2017, 18, 294-306.	6.1	6
18	Neuro-inspired quantum associative memory using adiabatic hamiltonian evolution. , 2017, , .		1

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19	Modularity-dependent modulation of synchronized bursting activity in cultured neuronal network models. , 2017, , .		3
20	Electronic properties of Si/Si-Ge Alloy/Si(100) heterostructures formed by ECR Ar plasma CVD without substrate heating. Materials Science in Semiconductor Processing, 2017, 70, 55-62.	4.0	4
21	Quantum Associative Memory with Quantum Neural Network via Adiabatic Hamiltonian Evolution. IEICE Transactions on Information and Systems, 2017, E100.D, 2683-2689.	0.7	2
22	Size-dependent regulation of synchronized activity in living neuronal networks. Physical Review E, 2016, 94, 012407.	2.1	19
23	Effects of interfacial chemical states on the performance of perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 4392-4397.	10.3	25
24	CMOS Majority Circuit with Large Fan-In. IEICE Transactions on Electronics, 2016, E99.C, 1056-1064.	0.6	0
25	LSI Implementation of Neural Network Model for Detecting Local Image Motion in Motion Stereo Vision. The Brain & Neural Networks, 2015, 22, 152-161.	0.1	1
26	Izhikevich neuron circuit using stochastic logic. Electronics Letters, 2014, 50, 1795-1797.	1.0	3
27	Majority neuron circuit having large fan-in with non-volatile synaptic weight. , 2014, , .		1
28	Surface Reaction in Thin Film Formation of Si _{1-x} Ge _x Alloys on Si(100) by Electron-Cyclotron-Resonance Ar Plasma Chemical Vapor Deposition without Substrate Heating. ECS Transactions, 2014, 64, 99-105.	0.5	5
29	Epitaxial growth of Si _{1-x} Ge _x alloys and Ge on Si(100) by electron-cyclotron-resonance Ar plasma chemical vapor deposition without substrate heating. Thin Solid Films, 2014, 557, 31-35.	1.8	7
30	Formation and Characterization of Strained Si _{1-x} Ge _x Films Epitaxially Grown on Si(100) by Low-Energy ECR Ar Plasma CVD without Substrate Heating. ECS Transactions, 2013, 58, 207-211.	0.5	0
31	Epitaxial Growth of Heavily B-Doped Si and Ge Films on Si(100) by Low-Energy ECR Ar Plasma CVD without Substrate Heating. ECS Transactions, 2013, 58, 223-228.	0.5	3
32	Dynamic characteristics of a simple bursting neuron model. Nonlinear Theory and Its Applications IEICE, 2012, 3, 436-456.	0.6	2
33	Dynamic Characteristics of Neuron Models and Active Areas in Potential Functions. Procedia IUTAM, 2012, 5, 49-53.	1.2	0
34	4-bit SFQ Multiplier Based on Booth Encoder. IEEE Transactions on Applied Superconductivity, 2011, 21, 852-855.	1.7	7
35	An application of higher order connection to inverse function delayed network. Nonlinear Theory and Its Applications IEICE, 2011, 2, 180-197.	0.6	2
36	Performance evaluation of adiabatic quantum computation using neuron-like interconnections. Nonlinear Theory and Its Applications IEICE, 2011, 2, 198-204.	0.6	0

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37	Analysis of burst dynamics bound by potential with active areas. Nonlinear Theory and Its Applications IEICE, 2011, 2, 417-431.	0.6	1
38	High Throughput Parallel Arithmetic Circuits for Fast Fourier Transform. IEICE Transactions on Electronics, 2011, E94-C, 280-287.	0.6	0
39	Method of Solving Combinatorial Optimization Problems with Stochastic Effects. Lecture Notes in Computer Science, 2011, , 389-394.	1.3	0
40	Neuromorphic Adiabatic Quantum Computation. , 2009, , 352-375.		0
41	Study on the performance of neuromorphic adiabatic quantum computation algorithms. , 2008, , .		0
42	Study of macroscopic quantum tunnelling in Bi ₂ Sr ₂ CaCu ₂ O ₈ + $\hat{\Gamma}$ intrinsic Josephson junctions. Superconductor Science and Technology, 2007, 20, S105-S109.	3.5	10
43	Energy Dissipation Effect on a Quantum Neural Network. Lecture Notes in Computer Science, 2007, , 730-737.	1.3	1
44	Macroscopic Quantum Tunneling and Resonant Activation of Current Biased Intrinsic Josephson Junctions in Bi-2212. IEICE Transactions on Electronics, 2007, E90-C, 599-604.	0.6	2
45	Quantum Neural Network Composed of Kane's Qubits. Japanese Journal of Applied Physics, 2006, 45, 8030-8034.	1.5	9
46	Hardware Implementation of an Inverse Function Delayed Neural Network Using Stochastic Logic. IEICE Transactions on Information and Systems, 2006, E89-D, 2572-2578.	0.7	4
47	Neuromorphic quantum computation with energy dissipation. Physical Review A, 2005, 72, .	2.5	15
48	Macroscopic Quantum Tunneling in ad-Wave High-TC Bi ₂ Sr ₂ CaCu ₂ O ₈ + $\hat{\Gamma}$ Superconductor. Physical Review Letters, 2005, 95, 107005.	7.8	172
49	Evaluation of junction parameters with control of carrier concentration in Bi ₂ Sr ₂ CaCu ₂ O ₈ + $\hat{\Gamma}$ stacked junctions. Physica C: Superconductivity and Its Applications, 2004, 412-414, 1396-1400.	1.2	5
50	Design of Single Electron Circuitry for a Stochastic Logic Neural Network. Lecture Notes in Computer Science, 2004, , 1010-1016.	1.3	0
51	Implementation of a new neurochip using stochastic logic. IEEE Transactions on Neural Networks, 2003, 14, 1122-1127.	4.2	38
52	Electrical transport characteristics of Bi ₂ Sr ₂ CaCu ₂ O ₈ + $\hat{\Gamma}$ stacked junctions with control of the carrier density. Superconductor Science and Technology, 2003, 16, 1365-1367.	3.5	3
53	An Approach for Quantum Computing using Adiabatic Evolution Algorithm. Japanese Journal of Applied Physics, 2003, 42, 7169-7173.	1.5	16
54	A Content-Addressable Memory Using $\hat{\alpha}$ Switched Diffusion Analog Memory with Feedback Circuit $\hat{\alpha}$ Analog Integrated Circuits and Signal Processing, 2000, 25, 337-346.	1.4	2

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55	Integrated Circuits of Map Chaos Generators. Analog Integrated Circuits and Signal Processing, 2000, 25, 329-335.	1.4	24
56	New Nonvolatile Analog Memories for Analog Data Processing. Japanese Journal of Applied Physics, 2000, 39, 2291-2296.	1.5	1
57	Implementation of a class of asymmetrical neural networks with application to an aâ€d converter. Electronics and Communications in Japan, 1992, 75, 92-102.	0.2	0