

# Angel Jimenez-Fernandez

## List of Publications by Year in descending order

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Version: 2024-02-01

71  
papers

877  
citations

759233

12  
h-index

580821

25  
g-index

76  
all docs

76  
docs citations

76  
times ranked

775  
citing authors

#	ARTICLE	IF	CITATIONS
1	An Event-Based Digital Time Difference Encoder Model Implementation for Neuromorphic Systems. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 1959-1973.	11.3	5
2	Towards the Neuromorphic Implementation of the Auditory Perception in the iCub Robotic Platform. , 2022, , .		2
3	Performance Evaluation of Deep Learning-Based Prostate Cancer Screening Methods in Histopathological Images: Measuring the Impact of the Model's Complexity on Its Processing Speed. Sensors, 2021, 21, 1122.	3.8	13
4	Wildlife Monitoring on the Edge: A Performance Evaluation of Embedded Neural Networks on Microcontrollers for Animal Behavior Classification. Sensors, 2021, 21, 2975.	3.8	16
5	Real-time detection of bursts in neuronal cultures using a neuromorphic auditory sensor and spiking neural networks. Neurocomputing, 2021, 449, 422-434.	5.9	4
6	Wide & Deep neural network model for patch aggregation in CNN-based prostate cancer detection systems. Computers in Biology and Medicine, 2021, 136, 104743.	7.0	9
7	Neuropod: A real-time neuromorphic spiking CPG applied to robotics. Neurocomputing, 2020, 381, 10-19.	5.9	35
8	ED-BioRob: A Neuromorphic Robotic Arm With FPGA-Based Infrastructure for Bio-Inspired Spiking Motor Controllers. Frontiers in Neurobotics, 2020, 14, 590163.	2.8	12
9	Live Demonstration: Neuromorphic Sensory Integration for Combining Sound Source Localization and Collision Avoidance. , 2020, , .		5
10	Event-Based Gesture Recognition through a Hierarchy of Time-Surfaces for FPGA. Sensors, 2020, 20, 3404.	3.8	11
11	Live Demonstration: Neuromorphic Robotics, from Audio to Locomotion Through Spiking CPG on SpiNNaker. , 2019, , .		3
12	Bio-Inspired Stereo Vision Calibration for Dynamic Vision Sensors. IEEE Access, 2019, 7, 138415-138425.	4.2	20
13	Live Demonstration: Neuromorphic Row-by-Row Multi-Convolution FPGA Processor-SpiNNaker Architecture for Dynamic-Vision Feature Extraction. , 2019, , .		1
14	Stereo Matching in Address-Event-Representation (AER) Bio-Inspired Binocular Systems in a Field-Programmable Gate Array (FPGA). Electronics (Switzerland), 2019, 8, 410.	3.1	11
15	Neuronal Specialization for Fine-Grained Distance Estimation Using a Real-Time Bio-Inspired Stereo Vision System. Electronics (Switzerland), 2019, 8, 1502.	3.1	1
16	Neuromorphic Sensory Integration for Combining Sound Source Localization and Collision Avoidance. , 2019, , .		14
17	A neuromorphic approach of the sound source localization task in real-time embedded systems. , 2019, , .		1
18	Real-time neuro-inspired sound source localization and tracking architecture applied to a robotic platform. Neurocomputing, 2018, 283, 129-139.	5.9	15

#	ARTICLE	IF	CITATIONS
19	Embedded neural network for real-time animal behavior classification. <i>Neurocomputing</i> , 2018, 272, 17-26.	5.9	40
20	Deep Neural Networks for the Recognition and Classification of Heart Murmurs Using Neuromorphic Auditory Sensors. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2018, 12, 24-34.	4.0	115
21	Performance evaluation over HW/SW co-design SoC memory transfers for a CNN accelerator. , 2018, , .		7
22	Neuromorphic LIF Row-by-Row Multi-convolution Processor for FPGA. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2018, 13, 1-1.	4.0	10
23	Event-based Row-by-Row Multi-convolution engine for Dynamic-Vision Feature Extraction on FPGA. , 2018, , .		2
24	Deep Spiking Neural Network model for time-variant signals classification: a real-time speech recognition approach. , 2018, , .		35
25	Live Demonstration: Real-time neuro-inspired sound source localization and tracking architecture applied to a robotic platform. , 2018, , .		0
26	A Protocol Generator Tool for Automatic In-Vitro HPV Robotic Analysis. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 580-591.	0.6	0
27	NAVIS: Neuromorphic Auditory VISualizer Tool. <i>Neurocomputing</i> , 2017, 237, 418-422.	5.9	10
28	A spiking neural network for real-time Spanish vowel phonemes recognition. <i>Neurocomputing</i> , 2017, 226, 249-261.	5.9	11
29	Semi-wildlife gait patterns classification using statistical methods and Artificial Neural Networks. , 2017, , .		2
30	A Binaural Neuromorphic Auditory Sensor for FPGA: A Spike Signal Processing Approach. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2017, 28, 804-818.	11.3	63
31	Live demonstration "Multilayer spiking neural network for audio samples classification using SpiNNaker. , 2017, , .		1
32	A SpiNNaker Application: Design, Implementation and Validation of SCPGs. <i>Lecture Notes in Computer Science</i> , 2017, , 548-559.	1.3	8
33	Accuracy Improvement of Neural Networks Through Self-Organizing-Maps over Training Datasets. <i>Lecture Notes in Computer Science</i> , 2017, , 520-531.	1.3	0
34	Wireless Sensor Network for Wildlife Tracking and Behavior Classification of Animals in Doñana. <i>IEEE Communications Letters</i> , 2016, 20, 2534-2537.	4.1	51
35	Sound Recognition System Using Spiking and MLP Neural Networks. <i>Lecture Notes in Computer Science</i> , 2016, , 363-371.	1.3	4
36	ED-Scorbot: A robotic test-bed framework for FPGA-based neuromorphic systems. , 2016, , .		3

#	ARTICLE	IF	CITATIONS
37	A 20Mevps/32Mev event-based USB framework for neuromorphic systems debugging. , 2016, , .		4
38	Multilayer Spiking Neural Network for Audio Samples Classification Using SpiNNaker. Lecture Notes in Computer Science, 2016, , 45-53.	1.3	16
39	Musical notes classification with neuromorphic auditory system using FPGA and a convolutional spiking network. , 2015, , .		6
40	Real-time motor rotation frequency detection with event-based visual and spike-based auditory AER sensory integration for FPGA. , 2015, , .		3
41	Live demonstration: Real-time motor rotation frequency detection by spike-based visual and auditory AER sensory integration for FPGA. , 2015, , .		4
42	Case study: Bio-inspired self-adaptive strategy for spike-based PID controller. , 2015, , .		12
43	System based on inertial sensors for behavioral monitoring of wildlife. , 2015, , .		6
44	An AER handshake-less modular infrastructure PCB with x8 2.5Gbps LVDS serial links. , 2014, , .		23
45	Spike-based VITE control with dynamic vision sensor applied to an arm robot. , 2014, , .		5
46	Neuro-Inspired Spike-Based Motion: From Dynamic Vision Sensor to Robot Motor Open-Loop Control through Spike-VITE. Sensors, 2013, 13, 15805-15832.	3.8	51
47	On the AER Stereo-Vision Processing: A Spike Approach to Epipolar Matching. Lecture Notes in Computer Science, 2013, , 267-275.	1.3	2
48	SVITE: A Spike-Based VITE Neuro-Inspired Robot Controller. Lecture Notes in Computer Science, 2013, , 276-283.	1.3	1
49	A FPGA Spike-Based Robot Controlled with Neuro-inspired VITE. Lecture Notes in Computer Science, 2013, , 299-308.	1.3	1
50	A Neuro-Inspired Spike-Based PID Motor Controller for Multi-Motor Robots with Low Cost FPGAs. Sensors, 2012, 12, 3831-3856.	3.8	70
51	Towards AER VITE: Building spike gate signal. , 2012, , .		3
52	Live demonstration: On the distance estimation of moving targets with a Stereo-Vision AER system. , 2012, , .		5
53	Simulating Building Blocks for Spikes Signals Processing. Lecture Notes in Computer Science, 2011, , 548-556.	1.3	4
54	On the Designing of Spikes Band-Pass Filters for FPGA. Lecture Notes in Computer Science, 2011, , 389-396.	1.3	6

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55	An Approach to Distance Estimation with Stereo Vision Using Address-Event-Representation. Lecture Notes in Computer Science, 2011, , 190-198.	1.3	8
56	Performance Study of Software AER-Based Convolutions on a Parallel Supercomputer. Lecture Notes in Computer Science, 2011, , 141-148.	1.3	2
57	Neuro-inspired system for real-time vision sensor tilt correction. , 2010, , .		7
58	Live demonstration: Neuro-inspired system for realtime vision tilt correction. , 2010, , .		2
59	Building blocks for spikes signals processing. , 2010, , .		21
60	Synthetic retina for AER systems development. , 2009, , .		8
61	Spike-based control monitoring and analysis with Address Event Representation. , 2009, , .		4
62	From Vision Sensor to Actuators, Spike Based Robot Control through Address-Event-Representation. Lecture Notes in Computer Science, 2009, , 797-804.	1.3	2
63	AER and dynamic systems co-simulation over Simulink with Xilinx System Generator. , 2008, , .		7
64	AER-based robotic closed-loop control system. , 2008, , .		9
65	Image convolution using a probabilistic mapper on USB-AER board. , 2008, , .		2
66	Spike Processing on an Embedded Multi-task Computer: Image Reconstruction. , 2007, , .		1
67	Using FPGA for visuo-motor control with a silicon retina and a humanoid robot. , 2007, , .		20
68	Address-event-based platform for bioinspired spiking systems. , 2007, , .		1
69	LVDS Serial AER Link performance. , 2007, , .		2
70	Multi-task Implementation for Image Reconstruction of an AER Communication. , 2007, , 717-724.		0
71	An AER-Based Actuator Interface for Controlling an Anthropomorphic Robotic Hand. Lecture Notes in Computer Science, 2007, , 479-489.	1.3	2