

Carlos Garcia Sanchez

List of Publications by Year in descending order

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52
papers

504
citations

686830

13
h-index

794141

19
g-index

55
all docs

55
docs citations

55
times ranked

581
citing authors

#	ARTICLE	IF	CITATIONS
1	NMF-mGPU: non-negative matrix factorization on multi-GPU systems. BMC Bioinformatics, 2015, 16, 43.	1.2	45
2	bioNMF: a web-based tool for nonnegative matrix factorization in biology. Nucleic Acids Research, 2008, 36, W523-W528.	6.5	31
3	A Low Cost Matching Motion Estimation Sensor Based on the NIOS II Microprocessor. Sensors, 2012, 12, 13126-13149.	2.1	30
4	SWIFOLD: Smith-Waterman implementation on FPGA with OpenCL for long DNA sequences. BMC Systems Biology, 2018, 12, 96.	3.0	29
5	Acceleration of block-matching algorithms using a custom instruction-based paradigm on a Nios II microprocessor. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	27
6	OSWALD. International Journal of High Performance Computing Applications, 2018, 32, 337-350.	2.4	26
7	GPU-based acceleration of bio-inspired motion estimation model. Concurrency Computation Practice and Experience, 2013, 25, 1037-1056.	1.4	19
8	SWIMM 2.0: Enhanced Smith-Waterman on Intel's Multicore and Manycore Architectures Based on AVX-512 Vector Extensions. International Journal of Parallel Programming, 2019, 47, 296-316.	1.1	19
9	Multi-GPU based on multicriteria optimization for motion estimation system. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	15
10	An energy-aware performance analysis of SWIMM: Smith-Waterman implementation on Intel's Multicore and Manycore architectures. Concurrency Computation Practice and Experience, 2015, 27, 5517-5537.	1.4	15
11	Portability Study of an OpenCL Algorithm for Automatic Target Detection in Hyperspectral Images. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 9499-9511.	2.7	15
12	Evaluation of Intel's DPC++ Compatibility Tool in heterogeneous computing. Journal of Parallel and Distributed Computing, 2022, 165, 120-129.	2.7	15
13	Real-time motion estimation for image and video processing applications. Journal of Real-Time Image Processing, 2016, 11, 625-631.	2.2	13
14	Portable real-time DCT-based steganography using OpenCL. Journal of Real-Time Image Processing, 2018, 14, 87-99.	2.2	13
15	Fast and effective CU size decision based on spatial and temporal homogeneity detection. Multimedia Tools and Applications, 2018, 77, 5907-5927.	2.6	13
16	Complexity reduction in the HEVC/H265 standard based on smooth region classification. , 2018, 73, 24-39.		13
17	Smith-Waterman algorithm on heterogeneous systems: A case study. , 2014, , .		12
18	Biclustering and classification analysis in gene expression using Nonnegative Matrix Factorization on multi-GPU systems. , 2011, , .		11

#	ARTICLE	IF	CITATIONS
19	Proteogenomics Dashboard for the Human Proteome Project. Journal of Proteome Research, 2015, 14, 3738-3749.	1.8	11
20	Early Experiences with OpenCL on FPGAs: Convolution Case Study. , 2015, , .		11
21	Accelerating Smith-Waterman Alignment of Long DNA Sequences with OpenCL on FPGA. Lecture Notes in Computer Science, 2017, , 500-511.	1.0	11
22	Robust motion estimation on a low-power multi-core DSP. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	9
23	CNN Inference acceleration using low-power devices for human monitoring and security scenarios. Computers and Electrical Engineering, 2020, 88, 106859.	3.0	9
24	GPU Implementation of Spatialâ€Spectral Preprocessing for Hyperspectral Unmixing. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 1671-1675.	1.4	8
25	Offset Printing Plate Quality Sensor on a Low-Cost Processor. Sensors, 2013, 13, 14277-14300.	2.1	7
26	Multicore Real-Time Implementation of a Full Hyperspectral Unmixing Chain. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 744-748.	1.4	7
27	Smith-Waterman Protein Search with OpenCL on an FPGA. , 2015, , .		6
28	Building efficient multi-threaded search nodes. , 2010, , .		5
29	Hardware implementation of machine vision systems: image and video processing. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	5
30	Improving Search Engines Performance on Multithreading Processors. Lecture Notes in Computer Science, 2008, , 201-213.	1.0	5
31	Migrating CUDA toÂoneAPI: A Smith-Waterman Case Study. Lecture Notes in Computer Science, 2022, , 103-116.	1.0	5
32	Vectorization of multigrid codes using SIMD ISA extensions. , 0, , .		4
33	OpenIRS-UCM. , 2012, , .		3
34	State-of-the-Art in Smithâ€Waterman Protein Database Search on HPC Platforms. , 2016, , 197-223.		3
35	Acceleration and energy consumption optimization in cascading classifiers for face detection on low-cost ARM big. LITTLE asymmetric architectures. International Journal of Circuit Theory and Applications, 2018, 46, 1756.	1.3	3
36	HEVC optimization based on human perception for real-time environments. Multimedia Tools and Applications, 2020, 79, 16001-16033.	2.6	3

#	ARTICLE	IF	CITATIONS
37	Beowulf performance in CFD multigrid applications. , 0, , .		2
38	Implementation of a Low-Cost Mobile Devices to Support Medical Diagnosis. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-9.	0.7	2
39	Performance portability study of an automatic target detection and classification algorithm for hyperspectral image analysis using OpenCL. , 2015, , .		2
40	Code obfuscation using very long identifiers for FFT motion estimation models in embedded processors. Journal of Real-Time Image Processing, 2016, 11, 817-827.	2.2	2
41	Fast CU size decision based on temporal homogeneity detection. , 2016, , .		2
42	HEVC optimizations for medical environments. , 2016, , .		2
43	OpenACC-based GPU acceleration of an optical flow algorithm. , 2015, , .		2
44	A parallel cloth simulator using multilevel algorithms. , 2002, , .		1
45	Non-negative matrix factorization on low-power architectures. , 2013, , .		1
46	Non-negative Matrix Factorization on Low-Power Architectures and Accelerators: A Comparative Study. Computers and Electrical Engineering, 2015, 46, 139-156.	3.0	1
47	4K-based intra and interprediction techniques for HEVC. Proceedings of SPIE, 2016, , .	0.8	1
48	Customized Nios II multi-cycle instructions to accelerate block-matching techniques. Proceedings of SPIE, 2015, , .	0.8	0
49	Fast-coding robust motion estimation model in a GPU. Proceedings of SPIE, 2015, , .	0.8	0
50	Parallel trajectory synchronization for aircraft conflicts resolution. , 2015, , .		0
51	On-Line Multi-Threaded Processing of Web User-Clicks on Multi-Core Processors. Lecture Notes in Computer Science, 2011, , 222-235.	1.0	0
52	Embedded Grammars for Grammatical Evolution on GPGPU. Lecture Notes in Computer Science, 2017, , 789-805.	1.0	0