

John D Owens

List of Publications by Year in descending order

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Version: 2024-02-01

115
papers

7,291
citations

279798

23
h-index

161849

54
g-index

117
all docs

117
docs citations

117
times ranked

4724
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | GraphBLAST: A High-Performance Linear Algebra-based Graph Framework on the GPU. ACM Transactions on Mathematical Software, 2022, 48, 1-51. | 2.9 | 18 |
| 2 | Towards Flexible and Compiler-Friendly Layer Fusion for CNNs on Multicore CPUs. Lecture Notes in Computer Science, 2021, , 232-248. | 1.3 | 0 |
| 3 | RXMesh. ACM Transactions on Graphics, 2021, 40, 1-16. | 7.2 | 0 |
| 4 | RXMesh. ACM Transactions on Graphics, 2021, 40, 1-16. | 7.2 | 8 |
| 5 | Dynamic Graphs on the GPU. , 2020, , . | | 14 |
| 6 | VoroCrust. ACM Transactions on Graphics, 2020, 39, 1-16. | 7.2 | 22 |
| 7 | Benchmarking Deep Learning Frameworks and Investigating FPGA Deployment for Traffic Sign Classification and Detection. IEEE Transactions on Intelligent Vehicles, 2019, 4, 385-395. | 12.7 | 20 |
| 8 | Engineering a high-performance GPU B-Tree. , 2019, , . | | 25 |
| 9 | Fast BFS-Based Triangle Counting on GPUs. , 2019, , . | | 6 |
| 10 | Accelerating DNN Inference with GraphBLAS and the GPU. , 2019, , . | | 7 |
| 11 | Implementing Push-Pull Efficiently in GraphBLAS. , 2018, , . | | 24 |
| 12 | FPGA versus GPU for Speed-Limit-Sign Recognition. , 2018, , . | | 4 |
| 13 | Benchmarking Deep Learning Frameworks with FPGA-suitable Models on a Traffic Sign Dataset. , 2018, , . | | 4 |
| 14 | Design Principles for Sparse Matrix Multiplication on the GPU. Lecture Notes in Computer Science, 2018, , 672-687. | 1.3 | 49 |
| 15 | A Dynamic Hash Table for the GPU. , 2018, , . | | 38 |
| 16 | Quotient Filters: Approximate Membership Queries on the GPU. , 2018, , . | | 6 |
| 17 | Scalable Breadth-First Search on a GPU Cluster. , 2018, , . | | 7 |
| 18 | Technical perspective: Graphs, betweenness centrality, and the GPU. Communications of the ACM, 2018, 61, 84-84. | 4.5 | 12 |

| # | ARTICLE | IF | CITATIONS |
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| 19 | GPU LSM: A Dynamic Dictionary Data Structure for the GPU. , 2018, , . | | 9 |
| 20 | Sampling Conditions for Conforming Voronoi Meshing by the VoroCrust Algorithm. Leibniz International Proceedings in Informatics, LIPIcs, 2018, 99, . | 0.0 | 3 |
| 21 | Methods for multitasking among real-time embedded compute tasks running on the GPU. Concurrency Computation Practice and Experience, 2017, 29, e4118. | 2.2 | 2 |
| 22 | A Constrained Resampling Strategy for Mesh Improvement. Computer Graphics Forum, 2017, 36, 189-201. | 3.0 | 10 |
| 23 | GPU Multisplit. ACM Transactions on Parallel Computing, 2017, 4, 1-44. | 1.4 | 9 |
| 24 | Multi-GPU Graph Analytics. , 2017, , . | | 31 |
| 25 | Gunrock. ACM Transactions on Parallel Computing, 2017, 4, 1-49. | 1.4 | 84 |
| 26 | Mini-Gunrock: A Lightweight Graph Analytics Framework on the GPU. , 2017, , . | | 0 |
| 27 | Fast parallel skew and prefix-doubling suffix array construction on the GPU. Concurrency Computation Practice and Experience, 2016, 28, 3466-3484. | 2.2 | 12 |
| 28 | Real-time GPU-based timing channel detection using entropy. , 2016, , . | | 0 |
| 29 | Multitasking Real-time Embedded GPU Computing Tasks. , 2016, , . | | 6 |
| 30 | Parallel Approaches to the String Matching Problem on the GPU. , 2016, , . | | 4 |
| 31 | Disk Density Tuning of a Maximal Random Packing. Computer Graphics Forum, 2016, 35, 259-269. | 3.0 | 8 |
| 32 | A Comparative Study on Exact Triangle Counting Algorithms on the GPU. , 2016, , . | | 38 |
| 33 | Mathematical foundations of the GraphBLAS. , 2016, , . | | 131 |
| 34 | Multidisciplinary simulation acceleration using multiple shared memory graphical processing units. International Journal of High Performance Computing Applications, 2016, 30, 486-508. | 3.7 | 0 |
| 35 | Gunrock. , 2016, , . | | 240 |
| 36 | GPU multisplit. , 2016, , . | | 11 |

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| 37 | Gunrock. ACM SIGPLAN Notices, 2016, 51, 1-12. | 0.2 | 47 |
| 38 | GPU multisplit. ACM SIGPLAN Notices, 2016, 51, 1-13. | 0.2 | 1 |
| 39 | Performance Characterization of High-Level Programming Models for GPU Graph Analytics. , 2015, , . | | 19 |
| 40 | Multidisciplinary Simulation Acceleration using Multiple Shared-Memory Graphical Processing Units. , 2015, , . | | 0 |
| 41 | Fast Sparse Matrix and Sparse Vector Multiplication Algorithm on the GPU. , 2015, , . | | 19 |
| 42 | Parallel Reyes-style adaptive subdivision with bounded memory usage. , 2015, , . | | 2 |
| 43 | Piko. ACM Transactions on Graphics, 2015, 34, 1-13. | 7.2 | 13 |
| 44 | Gunrock: a high-performance graph processing library on the GPU. , 2015, , . | | 76 |
| 45 | Fast Parallel Suffix Array on the GPU. Lecture Notes in Computer Science, 2015, , 573-587. | 1.3 | 11 |
| 46 | A Comparative Study of GPU-Accelerated Multi-view Sequential Reconstruction Triangulation Methods for Large-Scale Scenes. Lecture Notes in Computer Science, 2015, , 254-269. | 1.3 | 0 |
| 47 | WTF, GPU! computing twitter's who-to-follow on the GPU. , 2014, , . | | 8 |
| 48 | Work-Efficient Parallel GPU Methods for Single-Source Shortest Paths. , 2014, , . | | 128 |
| 49 | <i>k</i> -d Darts. ACM Transactions on Graphics, 2014, 33, 1-16. | 7.2 | 11 |
| 50 | GPU-accelerated and efficient multi-view triangulation for scene reconstruction. , 2014, , . | | 1 |
| 51 | Sifted Disks. Computer Graphics Forum, 2013, 32, 509-518. | 3.0 | 5 |
| 52 | Building an Efficient Hash Table on the GPU. , 2012, , 39-53. | | 29 |
| 53 | A Hybrid Method for Solving Tridiagonal Systems on the GPU. , 2012, , 117-132. | | 9 |
| 54 | Applying Software-Managed Caching and CPU/GPU Task Scheduling for Accelerating Dynamic Workloads. , 2012, , 501-517. | | 0 |

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| 55 | A GPU Task-Parallel Model with Dependency Resolution. Computer, 2012, 45, 34-41. | 1.1 | 27 |
| 56 | Parallel lossless data compression on the GPU. , 2012, , . | | 65 |
| 57 | Plane-dependent error diffusion on a GPU. Proceedings of SPIE, 2012, , . | 0.8 | 8 |
| 58 | A study of Persistent Threads style GPU programming for GPGPU workloads. , 2012, , . | | 143 |
| 59 | Efficient parallel merge sort for fixed and variable length keys. , 2012, , . | | 48 |
| 60 | A Simple Algorithm for Maximal Poisson-Disk Sampling in High Dimensions. Computer Graphics Forum, 2012, 31, 785-794. | 3.0 | 83 |
| 61 | Compute & memory optimizations for high-quality speech recognition on low-end GPU processors. , 2011, , . | | 7 |
| 62 | Efficient maximal poisson-disk sampling. ACM Transactions on Graphics, 2011, 30, 1-12. | 7.2 | 69 |
| 63 | Feature-based speed limit sign detection using a graphics processing unit. , 2011, , . | | 13 |
| 64 | Lessons Learned from Exploring the Backtracking Paradigm on the GPU. Lecture Notes in Computer Science, 2011, , 425-437. | 1.3 | 36 |
| 65 | Real-Time Speed-Limit-Sign Recognition on an Embedded System Using a GPU. , 2011, , 497-515. | | 7 |
| 66 | Multi-GPU MapReduce on GPU Clusters. , 2011, , . | | 153 |
| 67 | An Auto-tuned Method for Solving Large Tridiagonal Systems on the GPU. , 2011, , . | | 64 |
| 68 | A quantitative performance analysis model for GPU architectures. , 2011, , . | | 161 |
| 69 | A parallel error diffusion implementation on a GPU. Proceedings of SPIE, 2011, , . | 0.8 | 10 |
| 70 | Efficient and good Delaunay meshes from random points. CAD Computer Aided Design, 2011, 43, 1506-1515. | 2.7 | 29 |
| 71 | Isotropic conforming refinement of quadrilateral and hexahedral meshes using two refinement templates. International Journal for Numerical Methods in Engineering, 2011, 88, 974-985. | 2.8 | 24 |
| 72 | Acceleration of 2-D Compressible Flow Solvers with Graphics Processing Unit Clusters. Journal of Aerospace Computing, Information, and Communication, 2011, 8, 237-249. | 0.8 | 7 |

| # | ARTICLE | IF | CITATIONS |
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| 73 | Register packing for cyclic reduction. , 2011, , . | | 30 |
| 74 | Efficient maximal poisson-disk sampling. , 2011, , . | | 12 |
| 75 | GPU-to-CPU Callbacks. Lecture Notes in Computer Science, 2011, , 365-372. | 1.3 | 4 |
| 76 | Extending MPI to accelerators. , 2011, , . | | 14 |
| 77 | Fragment-Parallel Composite and Filter. Computer Graphics Forum, 2010, 29, 1251-1258. | 3.0 | 27 |
| 78 | Fast tridiagonal solvers on the GPU. ACM SIGPLAN Notices, 2010, 45, 127-136. | 0.2 | 73 |
| 79 | Fast tridiagonal solvers on the GPU. , 2010, , . | | 107 |
| 80 | Multi-GPU volume rendering using MapReduce. , 2010, , . | | 47 |
| 81 | A Template-Based Approach for Real-Time Speed-Limit-Sign Recognition on an Embedded System Using GPU Computing. Lecture Notes in Computer Science, 2010, , 162-171. | 1.3 | 9 |
| 82 | Real-time parallel hashing on the GPU. , 2009, , . | | 29 |
| 83 | Message passing on data-parallel architectures. , 2009, , . | | 48 |
| 84 | Real-time parallel hashing on the GPU. ACM Transactions on Graphics, 2009, 28, 1-9. | 7.2 | 107 |
| 85 | Parallel view-dependent tessellation of Catmull-Clark subdivision surfaces. , 2009, , . | | 23 |
| 86 | Out-of-core Data Management for Path Tracing on Hybrid Resources. Computer Graphics Forum, 2009, 28, 385-396. | 3.0 | 36 |
| 87 | Three-layer optimizations for fast GMM computations on GPU-like parallel processors. , 2009, , . | | 13 |
| 88 | Data Parallel Bin-Based Indexing for Answering Queries on Multi-core Architectures. Lecture Notes in Computer Science, 2009, , 110-129. | 1.3 | 5 |
| 89 | Distributed Texture Memory in a Multi-GPU Environment. Computer Graphics Forum, 2008, 27, 130-151. | 3.0 | 15 |
| 90 | GPU Computing. Proceedings of the IEEE, 2008, 96, 879-899. | 21.3 | 1,266 |

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| 91 | Efficient computation of sum-products on GPUs through software-managed cache. , 2008, , . | | 63 |
| 92 | High performance computing for deformable image registration: Towards a new paradigm in adaptive radiotherapy. Medical Physics, 2008, 35, 3546-3553. | 3.0 | 104 |
| 93 | Fast Deformable Registration on the GPU: A CUDA Implementation of Demons. , 2008, , . | | 61 |
| 94 | Real-time Reyes-style adaptive surface subdivision. ACM Transactions on Graphics, 2008, 27, 1-8. | 7.2 | 36 |
| 95 | Towards multi-GPU support for visualization. Journal of Physics: Conference Series, 2007, 78, 012055. | 0.4 | 2 |
| 96 | Ultra-Scale Visualization: Research and Education. Journal of Physics: Conference Series, 2007, 78, 012088. | 0.4 | 6 |
| 97 | Research Challenges for On-Chip Interconnection Networks. IEEE Micro, 2007, 27, 96-108. | 1.8 | 312 |
| 98 | A Survey of General-Purpose Computation on Graphics Hardware. Computer Graphics Forum, 2007, 26, 80-113. | 3.0 | 1,370 |
| 99 | Resolution-matched shadow maps. ACM Transactions on Graphics, 2007, 26, 20. | 7.2 | 48 |
| 100 | Discrete Sibson interpolation. IEEE Transactions on Visualization and Computer Graphics, 2006, 12, 243-253. | 4.4 | 66 |
| 101 | Clift. ACM Transactions on Graphics, 2006, 25, 60-99. | 7.2 | 105 |
| 102 | Distributed texture memory in a multi-GPU environment. , 2006, , . | | 10 |
| 103 | The Virtual Pheromone Communication Primitive. Lecture Notes in Computer Science, 2006, , 135-149. | 1.3 | 6 |
| 104 | Dynamic adaptive shadow maps on graphics hardware. , 2005, , . | | 17 |
| 105 | Octree textures on graphics hardware. , 2005, , . | | 10 |
| 106 | Mio. Graphics Hardware, 2004, , . | 0.0 | 13 |
| 107 | Imagine: media processing with streams. IEEE Micro, 2001, 21, 35-46. | 1.8 | 259 |
| 108 | Communication scheduling. Operating Systems Review (ACM), 2000, 34, 82-92. | 1.9 | 1 |

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| 109 | Communication scheduling. ACM SIGPLAN Notices, 2000, 35, 82-92. | 0.2 | 14 |
| 110 | Communication scheduling. Computer Architecture News, 2000, 28, 82-92. | 2.5 | 6 |
| 111 | Memory access scheduling. , 2000, , . | | 524 |
| 112 | Polygon rendering on a stream architecture. , 2000, , . | | 31 |
| 113 | Efficient conditional operations for data-parallel architectures. , 2000, , . | | 53 |
| 114 | Memory access scheduling. Computer Architecture News, 2000, 28, 128-138. | 2.5 | 108 |
| 115 | <title>Media processing using streams</title>. , 1998, , . | | 3 |