

# James M Tuck

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1904448/publications.pdf>

Version: 2024-02-01

30  
papers

818  
citations

1163117

8  
h-index

996975

15  
g-index

31  
all docs

31  
docs citations

31  
times ranked

468  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | BulkSC. , 2007, , .   |      | 199       |
| 2  | The Bulk Multicore architecture for improved programmability. Communications of the ACM, 2009, 52, 58-65.   | 4.5  | 122       |
| 3  | DNA stability: a central design consideration for DNA data storage systems. Nature Communications, 2021, 12, 1358.  | 12.8 | 81        |
| 4  | Bulk Disambiguation of Speculative Threads in Multiprocessors. Computer Architecture News, 2006, 34, 227-238.   | 2.5  | 80        |
| 5  | Driving the Scalability of DNA-Based Information Storage Systems. ACS Synthetic Biology, 2019, 8, 1241-1248.  | 3.8  | 56        |
| 6  | Dynamic and scalable DNA-based information storage. Nature Communications, 2020, 11, 2981.  | 12.8 | 52        |
| 7  | Hiding the Long Latency of Persist Barriers Using Speculative Execution. , 2017, , .  |      | 41        |
| 8  | Lazy Persistency: A High-Performing and Write-Efficient Software Persistency Technique. , 2018, , .   |      | 26        |
| 9  | SoftSig. , 2008, , .  |      | 21        |
| 10 | Promiscuous molecules for smarter file operations in DNA-based data storage. Nature Communications, 2021, 12, 3518.   | 12.8 | 19        |
| 11 | BBB: Simplifying Persistent Programming using Battery-Backed Buffers. , 2021, , .   |      | 18        |
| 12 | MMT: Exploiting fine-grained parallelism in dynamic memory management. , 2010, , .  |      | 16        |
| 13 | Clustering and Differential Alignment Algorithm: Identification of Early Stage Regulators in the Arabidopsis thaliana Iron Deficiency Response. PLoS ONE, 2015, 10, e0136591. | 2.5  | 13        |
| 14 | Control-Flow Decoupling. , 2012, , .  |      | 12        |
| 15 | Efficient Checkpointing with Recompute Scheme for Non-volatile Main Memory. Transactions on Architecture and Code Optimization, 2019, 16, 1-27.                               | 2.0  | 10        |
| 16 | Control-Flow Decoupling: An Approach for Timely, Non-Speculative Branching. IEEE Transactions on Computers, 2015, 64, 2182-2203.  | 3.4  | 8         |
| 17 | Hardware Supported Permission Checks on Persistent Objects for Performance and Programmability. , 2018, , .   |      | 6         |
| 18 | Dynamic modelling of the iron deficiency modulated transcriptome response in Arabidopsis thaliana roots. In Silico Plants, 2019, 1, .   | 1.9  | 6         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Computing in 3D. , 2015, , .   |     | 5         |
| 20 | Characterizing the impact of soft errors across microarchitectural structures and implications for predictability. , 2017, , . |     | 4         |
| 21 | Dolos: Improving the Performance of Persistent Applications in ADR-Supported Secure Memory. , 2021, , .                        |     | 4         |
| 22 | Hiding the Long Latency of Persist Barriers Using Speculative Execution. Computer Architecture News, 2017, 45, 175-186.        | 2.5 | 4         |
| 23 | Automatic parallelization of fine-grained meta-functions on a chip multiprocessor. , 2011, , .                                 |     | 3         |
| 24 | WET: Write Efficient Loop Tiling for Non-Volatile Main Memory. , 2020, , .   |     | 3         |
| 25 | The Case for Domain-Specialized Branch Predictors for Graph-Processing. IEEE Computer Architecture Letters, 2020, 19, 101-104. | 1.5 | 2         |
| 26 | DINOS: Data INspired Oligo Synthesis for DNA Data Storage. ACM Journal on Emerging Technologies in Computing Systems, 0, , .   | 2.3 | 2         |
| 27 | SoftSig. Operating Systems Review (ACM), 2008, 42, 145-156.  | 1.9 | 1         |
| 28 | SoftSig: Software-Exposed Hardware Signatures for Code Analysis and Optimization. IEEE Micro, 2009, 29, 84-95.                 | 1.8 | 1         |
| 29 | Computing in 3D. , 2015, , .   |     | 1         |
| 30 | Lightweight runtime checking of C programs with RTC. Computer Languages, Systems and Structures, 2016, 45, 191-203.            | 1.4 | 1         |