

# Gerald E Sobelman

## List of Publications by Year in descending order

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Version: 2024-02-01

68  
papers

488  
citations

687220

13  
h-index

752573

20  
g-index

68  
all docs

68  
docs citations

68  
times ranked

454  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | An Efficient CNN Accelerator for Low-Cost Edge Systems. Transactions on Embedded Computing Systems, 2022, 21, 1-20.   | 2.1 | 3         |
| 2  | Hybrid Beamforming/Combining for Millimeter Wave MIMO: A Machine Learning Approach. IEEE Transactions on Vehicular Technology, 2020, 69, 11353-11368.   | 3.9 | 25        |
| 3  | Memory Segment Matching Network Based Image Geo-Localization. IEEE Access, 2019, 7, 77448-77459.  | 2.6 | 2         |
| 4  | Hardware Efficient Massive MIMO Detector Based on the Monte Carlo Tree Search Method. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2017, 7, 523-533.                             | 2.7 | 8         |
| 5  | Stochastic computing implementation of trigonometric and hyperbolic functions. , 2017, , .  |     | 2         |
| 6  | A low complexity SCMA detector based on stochastic computation. , 2017, , .   |     | 5         |
| 7  | Improved design of digital 1-D and 2-D notch filters using general feedback structure. , 2016, , .  |     | 3         |
| 8  | An Intra-Iterative Interference Cancellation Detector for Large-Scale MIMO Communications Based on Convex Optimization. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 2062-2072. | 3.5 | 27        |
| 9  | Reduced complexity look-up table based $\pi$ -rotation LDPC decoder. , 2016, , .  |     | 0         |
| 10 | An SVA hardware monitor with off-line replay. , 2016, , .   |     | 0         |
| 11 | A low-complexity FFT Processor using two-dimensional algebraic integer encoding. , 2016, , .  |     | 1         |
| 12 | Sparse Code Multiple Access Decoding Based on a Monte Carlo Markov Chain Method. IEEE Signal Processing Letters, 2016, 23, 639-643.   | 2.1 | 23        |
| 13 | Network-coding-based distributed relay scheme for PLC networks. , 2015, , .   |     | 0         |
| 14 | A low complexity algorithm and architecture for MIMO detection without QR decomposition. , 2015, , .  |     | 0         |
| 15 | Stochastic Iterative MIMO Detection System: Algorithm and Hardware Design. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 1205-1214.  | 3.5 | 19        |
| 16 | A low complexity floating-point complex multiplier with a three-term dot-product unit. , 2014, , .  |     | 3         |
| 17 | Stochastic MIMO Detector Based on the Markov Chain Monte Carlo Algorithm. IEEE Transactions on Signal Processing, 2014, 62, 1454-1463.  | 3.2 | 29        |
| 18 | A database-driven Ant Colony Algorithm for PLC networking. IEICE Electronics Express, 2014, 11, 20140957-20140957.  | 0.3 | 1         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Scaling, Offset, and Balancing Techniques in FFT-Based BP Nonbinary LDPC Decoders. IEEE Transactions on Circuits and Systems II: Express Briefs, 2013, 60, 277-281. | 2.2 | 5         |
| 20 | A novel fixed-complexity soft-output MIMO detector using parallel bidirectional scheme. , 2013, , .   |     | 2         |
| 21 | Iterative Computation of FIR MIMO MMSE-DFE With Flexible Complexity-Performance Tradeoff. IEEE Transactions on Signal Processing, 2013, 61, 2394-2404.              | 3.2 | 5         |
| 22 | Low complexity state metric compression technique in turbo decoder. IEICE Electronics Express, 2013, 10, 20130485-20130485.   | 0.3 | 1         |
| 23 | A novel hardware-oriented decoding algorithm for non-binary LDPC codes. , 2012, , .   |     | 1         |
| 24 | Generic Mixed-Radix FFT Pruning. IEEE Signal Processing Letters, 2012, 19, 167-170.   | 2.1 | 21        |
| 25 | General lattice wave digital filter with phase compensation scheme. , 2011, , .   |     | 1         |
| 26 | FFT implementation with Multi-operand floating point units. , 2011, , .   |     | 2         |
| 27 | Wideband spectrum sensing using the all-phase FFT. , 2011, , .  |     | 2         |
| 28 | A Reduced-Complexity Architecture for LDPC Layered Decoding Schemes. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2011, 19, 1099-1103.         | 2.1 | 40        |
| 29 | A high-throughput LDPC decoder architecture for high-rate WPAN systems. , 2011, , .   |     | 0         |
| 30 | PLL performance comparison with application to spread spectrum clock generator design. Analog Integrated Circuits and Signal Processing, 2010, 63, 197-216.         | 0.9 | 14        |
| 31 | Frequency domain adaptive tap partial update adaptive algorithm for network echo cancellation. , 2010, , .  |     | 1         |
| 32 | QoS-Constrained MIMO Subchannel Allocation in SDR Using the Tunable Channel Decomposition. , 2010, , .  |     | 1         |
| 33 | Bus Energy Consumption for Multilevel Signals. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 64-71.  | 3.5 | 9         |
| 34 | Sparse LMS with segment zero attractors for adaptive estimation of sparse signals. , 2010, , .  |     | 10        |
| 35 | Reconfigurable MIMO transceiver design using the tunable channel decomposition. , 2010, , .   |     | 0         |
| 36 | Memory size reduction for LDPC layered decoders. , 2010, , .  |     | 0         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | Novel and flexible Complex Coefficient Linear phase IIR filters for communications. , 2010, , .   |     | 0         |
| 38 | Implementations of FFT and STBD for MIMO-OFDM on a Reconfigurable Baseband Platform. IEICE Transactions on Information and Systems, 2010, E93-D, 811-821. | 0.4 | 0         |
| 39 | Semi-distributed scheduling for flexible codeword assignment in a CDMA Network-on-Chip. , 2009, , .   |     | 1         |
| 40 | Software Defined Radio architecture using a multicasting Network-on-Chip. , 2009, , .   |     | 2         |
| 41 | Reed-Solomon Codec for a Reconfigurable Baseband Processing Platform. , 2009, , .   |     | 1         |
| 42 | Sparseness-Controlled Adaptive Tap algorithms for partial update adaptive filters. , 2009, , .  |     | 4         |
| 43 | Gradient-based target localization in robotic sensor networks. Pervasive and Mobile Computing, 2009, 5, 37-48.  | 2.1 | 9         |
| 44 | Mesh-star Hybrid NoC architecture with CDMA switch. , 2009, , .   |     | 12        |
| 45 | Architectures for multi-gigabit wire-linked clock and data recovery. IEEE Circuits and Systems Magazine, 2008, 8, 45-57.                                  | 2.6 | 61        |
| 46 | Adaptive quantization in min-sum based irregular LDPC decoder. , 2008, , .  |     | 7         |
| 47 | An Efficient Multi-protocol RFID Interrogator Baseband Processor based on a Reconfigurable Architecture. , 2008, , .                                      |     | 1         |
| 48 | Flexible LDPC decoder architecture for high-throughput applications. , 2008, , .  |     | 9         |
| 49 | Optimality of Bus-Invert Coding. IEEE Transactions on Circuits and Systems II: Express Briefs, 2008, 55, 1134-1138.                                       | 2.2 | 5         |
| 50 | A heterogeneous reconfigurable baseband architecture for wireless LAN transceivers. , 2008, , .   |     | 2         |
| 51 | Cscan: A Correlation-based Scheduling Algorithm for Wireless Sensor Networks. , 2008, , .   |     | 5         |
| 52 | Reconfigurable baseband processing platform for communication systems. , 2008, , .  |     | 3         |
| 53 | Bandwidth-reusable CDMA NoC with flexible codeword assignment. , 2007, , .  |     | 2         |
| 54 | MIMO Transceiver Design Based on a Modified Geometric Mean Decomposition. , 2007, , .   |     | 6         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | Multi-level signaling for energy-efficient on-chip interconnects. , 2007, , .   |     | 0         |
| 56 | High Speed Look-Ahead LMS Detector for MIMO Systems. Signal Processing Systems Design and Implementation (siPS), IEEE Workshop on, 2007, , .            | 0.0 | 0         |
| 57 | FPGA-Based Design of a Pulsed-OFDM System. , 2006, , .  |     | 4         |
| 58 | Low-Power Bus Transform Coding for Multilevel Signals. , 2006, , .  |     | 7         |
| 59 | SPC08-5: Noise Model Analysis of Optimized Mixed-Radix Structures for Pulsed OFDM. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .      | 0.0 | 1         |
| 60 | VLSI DESIGN OF DIGIT-SERIAL FPGA ARCHITECTURE. Journal of Circuits, Systems and Computers, 2004, 13, 17-52.   | 1.0 | 0         |
| 61 | Performance evaluation and optimal design for FPGA-based digit-serial DSP functions. Computers and Electrical Engineering, 2003, 29, 357-377.           | 3.0 | 16        |
| 62 | FPGA-based digit-serial CSD FIR filter for image signal format conversion. Microelectronics Journal, 2002, 33, 501-508.                                 | 1.1 | 19        |
| 63 | New XOR/XNOR and full adder circuits for low voltage, low power applications. Microelectronics Journal, 1998, 29, 509-517.                              | 1.1 | 16        |
| 64 | A comparative study of glitch-free true single-phase clocked D flip-flop circuits at low supply voltage. Microelectronics Journal, 1998, 29, 1025-1031. | 1.1 | 5         |
| 65 | Switch-level Differential Fault Simulation of MOS VLSI Circuits. VLSI Design, 1996, 4, 217-229.   | 0.5 | 0         |
| 66 | Cluster Partitioning Techniques for Data Path Synthesis. VLSI Design, 1994, 1, 181-192.   | 0.5 | 1         |
| 67 | Strong-coupling expansions for multidimensional Ising and $O(n)$ spin systems. Physical Review B, 1981, 24, 1493-1499.                                  | 1.1 | 3         |
| 68 | Asymptotic estimates and borel resummation for a doubly anharmonic oscillator. Physical Review D, 1979, 19, 3754-3767.                                  | 1.6 | 20        |