

# Andrew L Sternberg

## List of Publications by Year in descending order

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73  
papers

1,781  
citations

331670

21  
h-index

276875

41  
g-index

73  
all docs

73  
docs citations

73  
times ranked

878  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of Heavy-Ion-Induced Leakage Current in SiC Power Devices. IEEE Transactions on Nuclear Science, 2022, 69, 248-253.	2.0	4
2	Simulation of Pulsed Laser-Induced Testing in Microelectronic Devices. IEEE Transactions on Nuclear Science, 2021, , 1-1.	2.0	2
3	Modeling COTS System TID Response With Monte Carlo Sampling and Transistor Swapping Experiments. IEEE Transactions on Nuclear Science, 2021, 68, 1008-1013.	2.0	0
4	Single-Event-Induced Charge Collection in Ge-Channel pMOS FinFETs. IEEE Transactions on Nuclear Science, 2021, 68, 807-814.	2.0	3
5	Comparison of Single-Event Transients in an Epitaxial Silicon Diode Resulting From Heavy-Ion-, Focused X-Ray-, and Pulsed Laser-Induced Charge Generation. IEEE Transactions on Nuclear Science, 2021, 68, 626-633.	2.0	5
6	Electrical Measurement of Cell-to-Cell Variation of Critical Charge in SRAM and Sensitivity to Single-Event Upsets by Low-Energy Protons. IEEE Transactions on Nuclear Science, 2021, 68, 815-822.	2.0	7
7	Single-Event Transient Response of Vertical and Lateral Waveguide-Integrated Germanium Photodiodes. IEEE Transactions on Nuclear Science, 2021, 68, 801-806.	2.0	7
8	Effects of Breakdown Voltage on Single-Event Burnout Tolerance of High-Voltage SiC Power MOSFETs. IEEE Transactions on Nuclear Science, 2021, 68, 1430-1435.	2.0	28
9	Comparison of Sensitive Volumes Associated With Ion- and Laser-Induced Charge Collection in an Epitaxial Silicon Diode. IEEE Transactions on Nuclear Science, 2020, 67, 57-62.	2.0	5
10	Unifying Concepts for Ion-Induced Leakage Current Degradation in Silicon Carbide Schottky Power Diodes. IEEE Transactions on Nuclear Science, 2020, 67, 135-139.	2.0	19
11	Polarization Dependence of Pulsed Laser-Induced SEEs in SOI FinFETs. IEEE Transactions on Nuclear Science, 2020, 67, 38-43.	2.0	8
12	Ion-Induced Energy Pulse Mechanism for Single-Event Burnout in High-Voltage SiC Power MOSFETs and Junction Barrier Schottky Diodes. IEEE Transactions on Nuclear Science, 2020, 67, 22-28.	2.0	67
13	Sensitive-Volume Model of Single-Event Latchup for a 180-nm SRAM Test Structure. IEEE Transactions on Nuclear Science, 2020, 67, 2015-2020.	2.0	3
14	Enhanced Charge Collection in SiC Power MOSFETs Demonstrated by Pulse-Laser Two-Photon Absorption SEE Experiments. IEEE Transactions on Nuclear Science, 2019, 66, 1694-1701.	2.0	19
15	Simulation of Transistor-Level Radiation Effects on System-Level Performance Parameters. IEEE Transactions on Nuclear Science, 2019, 66, 1634-1641.	2.0	5
16	Empirical Modeling of FinFET SEU Cross Sections Across Supply Voltage. IEEE Transactions on Nuclear Science, 2019, 66, 1427-1432.	2.0	8
17	Estimating Terrestrial Neutron-Induced SEB Cross Sections and FIT Rates for High-Voltage SiC Power MOSFETs. IEEE Transactions on Nuclear Science, 2019, 66, 337-343.	2.0	37
18	A Bias-Dependent Single-Event-Enabled Compact Model for Bulk FinFET Technologies. IEEE Transactions on Nuclear Science, 2019, 66, 635-642.	2.0	9

#	ARTICLE	IF	CITATIONS
19	Laser-Induced Single-Event Transients in Black Phosphorus MOSFETs. IEEE Transactions on Nuclear Science, 2019, 66, 384-388.	2.0	3
20	Pulsed-Laser Induced Single-Event Transients in InGaAs FinFETs on Bulk Silicon Substrates. IEEE Transactions on Nuclear Science, 2019, 66, 376-383.	2.0	8
21	Pulsed Laser-Induced Single-Event Transients in InGaAs FinFETs with sub-10-nm Fin Widths. , 2019, , .		1
22	Single-Event Burnout of SiC Junction Barrier Schottky Diode High-Voltage Power Devices. IEEE Transactions on Nuclear Science, 2018, 65, 256-261.	2.0	63
23	Dose-Rate Effects on the Total-Ionizing-Dose Response of Piezoresistive Micromachined Cantilevers. IEEE Transactions on Nuclear Science, 2018, 65, 58-63.	2.0	4
24	Angular Effects on Single-Event Mechanisms in Bulk FinFET Technologies. IEEE Transactions on Nuclear Science, 2018, 65, 223-230.	2.0	24
25	Exploiting Parallelism and Heterogeneity in a Radiation Effects Test Vehicle for Efficient Single-Event Characterization of Nanoscale Circuits. IEEE Transactions on Nuclear Science, 2018, 65, 486-494.	2.0	13
26	Analysis of TPA Pulsed-Laser-Induced Single-Event Latchup Sensitive-Area. IEEE Transactions on Nuclear Science, 2018, 65, 502-509.	2.0	6
27	Time-Domain Modeling of All-Digital PLLs to Single-Event Upset Perturbations. IEEE Transactions on Nuclear Science, 2018, 65, 311-317.	2.0	3
28	Application of a Focused, Pulsed X-ray Beam for Total Ionizing Dose Testing of Bipolar Linear Integrated Circuits. IEEE Transactions on Nuclear Science, 2018, 65, 478-485.	2.0	3
29	Scaling Effects on Single-Event Transients in InGaAs FinFETs. IEEE Transactions on Nuclear Science, 2018, 65, 296-303.	2.0	18
30	The Impact of Charge Collection Volume and Parasitic Capacitance on SEUs in SOI- and Bulk-FinFET D Flip-Flops. IEEE Transactions on Nuclear Science, 2018, 65, 326-330.	2.0	20
31	Proton-Induced Displacement Damage and Total-Ionizing-Dose Effects on Silicon-Based MEMS Resonators. IEEE Transactions on Nuclear Science, 2018, 65, 34-38.	2.0	7
32	Single-Event Burnout Mechanisms in SiC Power MOSFETs. IEEE Transactions on Nuclear Science, 2018, 65, 1951-1955.	2.0	94
33	Failure Estimates for SiC Power MOSFETs in Space Electronics. Aerospace, 2018, 5, 67.	2.2	23
34	Total-Ionizing-Dose Effects on Al/SiO <sub>2</sub> Bimorph Electrothermal Microscanners. IEEE Transactions on Nuclear Science, 2018, 65, 2260-2267.	2.0	0
35	Parasitic Bipolar Action in SiC Power MOSFETs Demonstrated by Two-Photon Laser Experiment. , 2018, , .		0
36	Total-Ionizing-Dose Effects in Piezoresistive Micromachined Cantilevers. IEEE Transactions on Nuclear Science, 2017, 64, 263-268.	2.0	10

#	ARTICLE	IF	CITATIONS
37	Total-Ionizing-Dose Effects on Piezoelectric Micromachined Ultrasonic Transducers. IEEE Transactions on Nuclear Science, 2017, 64, 233-238.	2.0	2
38	Understanding Charge Collection Mechanisms in InGaAs FinFETs Using High-Speed Pulsed-Laser Transient Testing With Tunable Wavelength. IEEE Transactions on Nuclear Science, 2017, 64, 2069-2078.	2.0	17
39	CubeSat: Real-time soft error measurements at low earth orbits. , 2017, , .		3
40	Ionizing Dose-Tolerant Enhancement-Mode Cascode for High-Voltage Power Devices. IEEE Transactions on Nuclear Science, 2017, 64, 382-387.	2.0	2
41	Persistent Laser-Induced Leakage in a 20 nm Charge-Pump Phase-Locked Loop (PLL). IEEE Transactions on Nuclear Science, 2017, 64, 512-518.	2.0	5
42	Bayesian Modeling of COTS Power MOSFET Ionizing Dose Impact on Circuit Response. , 2017, , .		3
43	RadFxCat: A Flight Campaign for Recording Single-Event Effects in Commercial Off-the-Shelf Microelectronics. , 2017, , .		2
44	Charge Collection Mechanisms of Ge-Channel Bulk $\text{MOSFETs}$ . IEEE Transactions on Nuclear Science, 2015, 62, 2725-2731.	2.0	8
45	Proton Irradiation as a Screen for Displacement-Damage Sensitivity in Bipolar Junction Transistors. IEEE Transactions on Nuclear Science, 2015, 62, 2498-2504.	2.0	8
46	Charge Collection Mechanisms in GaAs MOSFETs. IEEE Transactions on Nuclear Science, 2015, 62, 2752-2759.	2.0	10
47	Single-Event Transient Induced Harmonic Errors in Digitally Controlled Ring Oscillators. IEEE Transactions on Nuclear Science, 2014, 61, 3163-3170.	2.0	14
48	Single-Event Transient Response of InGaAs MOSFETs. IEEE Transactions on Nuclear Science, 2014, 61, 3550-3556.	2.0	20
49	Irradiation and Temperature Effects for a 32-nm RF Silicon-on-Insulator CMOS Process. IEEE Transactions on Nuclear Science, 2014, 61, 3037-3042.	2.0	8
50	Electron-Induced Single-Event Upsets in Static Random Access Memory. IEEE Transactions on Nuclear Science, 2013, 60, 4122-4129.	2.0	121
51	An efficient AVF estimation technique using circuit partitioning. , 2011, , .		0
52	Circuit-Level Layout-Aware Single-Event Sensitive-Area Analysis of 40-nm Bulk CMOS Flip-Flops Using Compact Modeling. IEEE Transactions on Nuclear Science, 2011, 58, 2680-2686.	2.0	24
53	The Effects of Elevated Temperature on Pulsed-Laser-Induced Single Event Transients in Analog Devices. IEEE Transactions on Nuclear Science, 2009, 56, 3138-3144.	2.0	12
54	Significance of Strike Model in Circuit-Level Prediction of Charge Sharing Upsets. IEEE Transactions on Nuclear Science, 2009, 56, 3109-3114.	2.0	17

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55	Heavy Ion Testing and Single Event Upset Rate Prediction Considerations for a DICE Flip-Flop. IEEE Transactions on Nuclear Science, 2009, 56, 3130-3137.	2.0	44
56	A Bias-Dependent Single-Event Compact Model Implemented Into BSIM4 and a 90 nm CMOS Process Design Kit. IEEE Transactions on Nuclear Science, 2009, 56, 3152-3157.	2.0	131
57	Measurement and Analysis of Interconnect Crosstalk Due to Single Events in a 90 nm CMOS Technology. IEEE Transactions on Nuclear Science, 2008, 55, 2079-2084.	2.0	23
58	Integrating Circuit Level Simulation and Monte-Carlo Radiation Transport Code for Single Event Upset Analysis in SEU Hardened Circuitry. IEEE Transactions on Nuclear Science, 2008, 55, 2886-2894.	2.0	46
59	Single Event Upsets in Deep-Submicrometer Technologies Due to Charge Sharing. IEEE Transactions on Device and Materials Reliability, 2008, 8, 582-589.	2.0	91
60	Implications of Dopant-Fluctuation-Induced $V_{th}$ Variations on the Radiation Hardness of Deep Submicrometer CMOS SRAMs. IEEE Transactions on Device and Materials Reliability, 2008, 8, 135-144.	2.0	21
61	Directional Sensitivity of Single Event Upsets in 90 nm CMOS Due to Charge Sharing. IEEE Transactions on Nuclear Science, 2007, 54, 2584-2589.	2.0	79
62	Random Dopant Effect on $V_t$ Variations Affecting the Soft-Error Rates of Nanoscale CMOS Memory Cells. , 2007, , .		5
63	Experimental verification of Single Event interconnect crosstalk in a 90 nm CMOS technology. , 2007, , .		1
64	Soft-Error Charge-Sharing Mechanisms at Sub-100nm Technology Nodes. , 2007, , .		7
65	Charge Collection and Charge Sharing in a 130 nm CMOS Technology. IEEE Transactions on Nuclear Science, 2006, 53, 3253-3258.	2.0	336
66	Crosstalk Effects Caused by Single Event Hits in Deep Sub-Micron CMOS Technologies. IEEE Transactions on Nuclear Science, 2006, 53, 3306-3311.	2.0	23
67	Single-Event Sensitivity and Hardening of a Pipelined Analog-to-Digital Converter. IEEE Transactions on Nuclear Science, 2006, 53, 3532-3538.	2.0	23
68	Validity of using a fixed analog input for evaluating the SEU sensitivity of a flash analog-to-digital converter. IEEE Transactions on Nuclear Science, 2005, 52, 462-467.	2.0	5
69	Total-dose and single-event effects in DC/DC converter control circuitry. IEEE Transactions on Nuclear Science, 2003, 50, 1867-1872.	2.0	29
70	Single-event transient (SET) characterization of an LM119 voltage comparator: an approach to SET model validation using a pulsed laser. IEEE Transactions on Nuclear Science, 2002, 49, 1502-1508.	2.0	30
71	Critical charge for single-event transients (SETs) in bipolar linear circuits. IEEE Transactions on Nuclear Science, 2001, 48, 1966-1972.	2.0	45
72	Variations in SET pulse shapes in the LM124A and LM111. , 0, , .		26

#	ARTICLE	IF	CITATIONS
73	New Insight into Single-Event Radiation Failure Mechanisms in Silicon Carbide Power Schottky Diodes and MOSFETs. Materials Science Forum, 0, 1004, 1066-1073.	0.3	4