

Guillaume Hubert

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Impact of the Radial Ionization Profile on SEE Prediction for SOI Transistors and SRAMs Beyond the 32-nm Technological Node. IEEE Transactions on Nuclear Science, 2011, 58, 840-847.	2.0	144
2	Anthology of the Development of Radiation Transport Tools as Applied to Single Event Effects. IEEE Transactions on Nuclear Science, 2013, 60, 1876-1911.	2.0	119
3	Device simulation study of the SEU sensitivity of SRAMs to internal ion tracks generated by nuclear reactions. IEEE Transactions on Nuclear Science, 2001, 48, 225-231.	2.0	110
4	Operational SER Calculations on the SAC-C Orbit Using the Multi-Scales Single Event Phenomena Predictive Platform (MUSCA $\{m\} SEP^{\{3\}}$). IEEE Transactions on Nuclear Science, 2009, 56, 3032-3042.	2.0	110
5	Impact of scaling on the soft error sensitivity of bulk, FDSOI and FinFET technologies due to atmospheric radiation. The Integration VLSI Journal, 2015, 50, 39-47.	2.1	86
6	Modeling Single Event Transients in Advanced Devices and ICs. IEEE Transactions on Nuclear Science, 2015, 62, 1528-1539.	2.0	67
7	Single-Event Transient Modeling in a 65-nm Bulk CMOS Technology Based on Multi-Physical Approach and Electrical Simulations. IEEE Transactions on Nuclear Science, 2013, 60, 4421-4429.	2.0	66
8	SEU Prediction From SET Modeling Using Multi-Node Collection in Bulk Transistors and SRAMs Down to the 65 nm Technology Node. IEEE Transactions on Nuclear Science, 2011, 58, 1338-1346.	2.0	63
9	Detailed analysis of secondary ions' effect for the calculation of neutron-induced SER in SRAMs. IEEE Transactions on Nuclear Science, 2001, 48, 1953-1959.	2.0	61
10	Neutron monitors and muon detectors for solar modulation studies: 2. \ddot{I} time series. Advances in Space Research, 2017, 60, 833-847.	2.6	47
11	Various SEU conditions in SRAM studied by 3-D device simulation. IEEE Transactions on Nuclear Science, 2001, 48, 1931-1936.	2.0	45
12	Continuous High-Altitude Measurements of Cosmic Ray Neutrons and SEU/MCU at Various Locations: Correlation and Analyses Based-On MUSCA $SEP^{\{3\}}$. IEEE Transactions on Nuclear Science, 2013, 60, 2418-2426.	2.0	39
13	Monte Carlo Prediction of Heavy Ion Induced MBU Sensitivity for SOI SRAMs Using Radial Ionization Profile. IEEE Transactions on Nuclear Science, 2011, 58, 2607-2613.	2.0	34
14	Neutron monitors and muon detectors for solar modulation studies: Interstellar flux, yield function, and assessment of critical parameters in count rate calculations. Advances in Space Research, 2015, 55, 363-389.	2.6	33
15	Collected Charge Analysis for a New Transient Model by TCAD Simulation in 90 nm Technology. IEEE Transactions on Nuclear Science, 2010, 57, 1869-1875.	2.0	31
16	A review of DASIE code family: contribution to SEU/MBU understanding. , 2005, , .		29
17	Analysis of Quasi-Monoenergetic Neutron and Proton SEU Cross Sections for Terrestrial Applications. IEEE Transactions on Nuclear Science, 2006, 53, 1890-1896.	2.0	29
18	Modeling of radiation-induced single event transients in SOI FinFETS. , 2013, , .		29

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19	Multiple Event Transient Induced by Nuclear Reactions in CMOS Logic Cells. , 2007, , .		28
20	Radiation Effects Investigations Based on Atmospheric Radiation Model (ATMORAD) Considering GEANT4 Simulations of Extensive Air Showers and Solar Modulation Potential. Radiation Research, 2015, 184, 83-94.	1.5	28
21	Study of basic mechanisms induced by an ionizing particle on simple structures. IEEE Transactions on Nuclear Science, 2000, 47, 519-526.	2.0	27
22	Neutron-induced SEU in SRAMs: Simulations with n-Si and n-O interactions. IEEE Transactions on Nuclear Science, 2005, 52, 2332-2339.	2.0	26
23	Accelerator-Based Neutron Irradiation of Integrated Circuits at GENEPI2 (France). , 2014, , .		24
24	Comparative soft error evaluation of layout cells in FinFET technology. Microelectronics Reliability, 2014, 54, 2300-2305.	1.7	24
25	Real-Life SEU Experiments on 90 nm SRAMs in Atmospheric Environment: Measures Versus Predictions Done by Means of $\{m \text{ MUSCA-SEP}^{\wedge}\{3\}\}$ Platform. IEEE Transactions on Nuclear Science, 2009, 56, 3450-3455.	2.0	23
26	Implementing Realistic Heavy Ion Tracks in a SEE Prediction Tool: Comparison Between Different Approaches. IEEE Transactions on Nuclear Science, 2012, 59, 950-957.	2.0	23
27	Impact of different transistor arrangements on gate variability. Microelectronics Reliability, 2018, 88-90, 111-115.	1.7	23
28	Prediction of Transient Induced by Neutron/Proton in CMOS Combinational Logic Cells. , 0, , .		22
29	Simulation of Single and Multi-Node Collection: Impact on SEU Occurrence in Nanometric SRAM Cells. IEEE Transactions on Nuclear Science, 2011, 58, 862-869.	2.0	22
30	Analyzing the Influence of the Angles of Incidence and Rotation on MBU Events Induced by Low LET Heavy Ions in a 28-nm SRAM-Based FPGA. IEEE Transactions on Nuclear Science, 2017, 64, 2161-2168.	2.0	22
31	A Semi-empirical Approach for Heavy Ion SEU Cross Section Calculations. IEEE Transactions on Nuclear Science, 2006, 53, 3271-3276.	2.0	21
32	ICARE On-Board SAC-C: More Than 8 Years of SEU and MCU, Analysis and Prediction. IEEE Transactions on Nuclear Science, 2010, 57, 2000-2009.	2.0	21
33	Effect of the Radial Ionization Profile of Proton on SEU Sensitivity of Nanoscale SRAMs. IEEE Transactions on Nuclear Science, 2015, 62, 2837-2845.	2.0	21
34	Cosmic ray solar modulation and Forbush decrease analyses based on atmospheric neutron spectrometry at mountain altitude and GEANT4 simulations of extensive air showers. Journal of Geophysical Research: Space Physics, 2013, 118, 7488-7496.	2.4	20
35	Laser Mapping of SRAM Sensitive Cells: A Way to Obtain Input Parameters for DASIE Calculation Code. IEEE Transactions on Nuclear Science, 2006, 53, 1863-1870.	2.0	19
36	Evidence of the Robustness of a COTS Soft-Error Free SRAM to Neutron Radiation. IEEE Transactions on Nuclear Science, 2014, 61, 3103-3108.	2.0	19

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37	In Flight SEU/MCU Sensitivity of Commercial Nanometric SRAMs: Operational Estimations. IEEE Transactions on Nuclear Science, 2011, 58, 2644-2651.	2.0	18
38	Long and short-term atmospheric radiation analyses based on coupled measurements at high altitude remote stations and extensive air shower modeling. Astroparticle Physics, 2016, 74, 27-36.	4.3	18
39	SEU Characterization of Three Successive Generations of COTS SRAMs at Ultralow Bias Voltage to 14.2-MeV Neutrons. IEEE Transactions on Nuclear Science, 2018, 65, 1858-1865.	2.0	18
40	Evaluation of Recent Technologies of Nonvolatile RAM. IEEE Transactions on Nuclear Science, 2008, 55, 1982-1991.	2.0	17
41	Evaluation of radiation-induced soft error in majority voters designed in 7 nm FinFET technology. Microelectronics Reliability, 2017, 76-77, 660-664.	1.7	17
42	MUSCA SEP<sup>3</sup>; contributions to investigate the direct ionization proton upset in 65nm technology for space, atmospheric and ground applications. , 2009, , .		16
43	SET and SEU Analyses Based on Experiments and Multi-Physics Modeling Applied to the ATMEL CMOS Library in 180 and 90-nm Technological Nodes. IEEE Transactions on Nuclear Science, 2014, 61, 3178-3186.	2.0	16
44	Modeling of ground albedo neutrons to investigate seasonal cosmic ray<sup>induced</sup> neutron variations measured at high<sup>altitude</sup> stations. Journal of Geophysical Research: Space Physics, 2016, 121, 12,186.	2.4	16
45	Experimental Measurements of the Cosmic-Ray Induced Neutron Spectra at Various Mountain Altitudes With HERMEIS. IEEE Transactions on Nuclear Science, 2012, 59, 1722-1730.	2.0	15
46	Single-Event Latchup Modeling Based on Coupled Physical and Electrical Transient Simulations in CMOS Technology. IEEE Transactions on Nuclear Science, 2014, 61, 3543-3549.	2.0	15
47	Modeling of Elevated Temperatures Impact on Single Event Transient in Advanced CMOS Logics Beyond the 65-nm Technological Node. IEEE Transactions on Nuclear Science, 2014, 61, 1611-1617.	2.0	15
48	Statistical Anomalies of Bitflips in SRAMs to Discriminate SBUs From MCUs. IEEE Transactions on Nuclear Science, 2016, 63, 2087-2094.	2.0	15
49	Single Event Upsets Under 14-MeV Neutrons in a 28-nm SRAM-Based FPGA in Static Mode. IEEE Transactions on Nuclear Science, 2020, 67, 1461-1469.	2.0	15
50	DASIE Analytical Version: A Predictive Tool for Neutrons, Protons and Heavy Ions Induced SEU Cross Section. IEEE Transactions on Nuclear Science, 2006, 53, 1876-1882.	2.0	14
51	Impact of the Solar Flares on the SER Dynamics on Micro and Nanometric Technologies. IEEE Transactions on Nuclear Science, 2010, , .	2.0	14
52	Analyses of cosmic ray induced-neutron based on spectrometers operated simultaneously at mid-latitude and Antarctica high-altitude stations during quiet solar activity. Astroparticle Physics, 2016, 83, 30-39.	4.3	14
53	Investigation of Electrical Latchup and SEL Mechanisms at Low Temperature for Applications down to 50K. IEEE Transactions on Nuclear Science, 2017, , 1-1.	2.0	13
54	Characterization of the IRSN neutron multisphere spectrometer (HERMEIS) at European standard calibration fields. Journal of Instrumentation, 2012, 7, C04007-C04007.	1.2	12

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55	Laser-induced fault effects in security-dedicated circuits. , 2014, , .		12
56	Analysis of Angular Dependence of Single-Event Latchup Sensitivity for Heavy-Ion Irradiations of $0.18\text{-}\mu\text{m}$ CMOS Technology. IEEE Transactions on Nuclear Science, 2015, 62, 2539-2546.	2.0	12
57	Sensitivity Characterization of a COTS 90-nm SRAM at Ultra Low Bias Voltage. IEEE Transactions on Nuclear Science, 2017, , 1-1.	2.0	12
58	Atmospheric Cosmic-Ray Variation and Ambient Dose Equivalent Assessments Considering Ground Level Enhancement Thanks to Coupled Anisotropic Solar Cosmic Ray and Extensive Air Shower Modeling. Radiation Research, 2017, 188, 597-611.	1.5	12
59	A generic platform for remote accelerated tests and high altitude SEU experiments on advanced ICs: Correlation with MUSCA SEP3 calculations. , 2009, , .		11
60	Measurements and Monte Carlo simulations of the spectral variations of the cosmic-ray-induced neutrons at the Pic du Midi over a 2-y period. Radiation Protection Dosimetry, 2014, 161, 284-289.	0.8	11
61	Single Event Upset Sensitivity of D-Flip Flop of Infrared Image Sensors for Low Temperature Applications Down to 77ÅK. IEEE Transactions on Nuclear Science, 2015, 62, 2979-2987.	2.0	11
62	Experimental study of neutron-induced soft errors in modern cardiac pacemakers. Journal of Interventional Cardiac Electrophysiology, 2012, 33, 19-25.	1.3	10
63	A neutron spectrometer for avionic environment investigations. IEEE Transactions on Nuclear Science, 2004, 51, 3452-3456.	2.0	9
64	Evaluation of recent technologies of non-volatile RAM. , 2007, , .		9
65	Multi-scale modeling to investigate the single event effects for space missions. Acta Astronautica, 2011, 69, 526-536.	3.2	9
66	Analyzing the influence of the angles of incidence on SEU and MBU events induced by low LET heavy ions in a 28-nm SRAM-based FPGA. , 2016, , .		9
67	Analysis of the Forbush Decreases and Ground-Level Enhancement on September 2017 Using Neutron Spectrometers Operated in Antarctic and Midlatitude Stations. Journal of Geophysical Research: Space Physics, 2019, 124, 661-673.	2.4	9
68	Evaluation of a COTS 65-nm SRAM Under 15 MeV Protons and 14 MeV Neutrons at Low VDD. IEEE Transactions on Nuclear Science, 2020, 67, 2188-2195.	2.0	9
69	Investigation of the influence of process and design on soft error rate in integrated CMOS technologies thanks to Monte Carlo simulation. , 2008, , .		8
70	Operational Impact of Statistical Properties of Single Event Phenomena for On-Orbit Measurements and Predictions Improvement. IEEE Transactions on Nuclear Science, 2013, 60, 3915-3923.	2.0	8
71	Error-Rate Estimation Combining SEE Static Cross-Section Predictions and Fault-Injections Performed on HDL-Based Designs. IEEE Transactions on Nuclear Science, 2013, 60, 4238-4242.	2.0	7
72	Statistical Anomalies of Bitflips in SRAMs to Discriminate MCUs from SEUs. , 2015, , .		7

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73	Single event transient in bulk MOSFETs: Original modelling for SPICE application. , 2017, , .		7
74	Mitigation of process variability effects using decoupling cells. Microelectronics Reliability, 2019, 100-101, 113446.	1.7	7
75	Experimental Evidence of Ground Albedo Neutron Impact on Soft Error Rate for Nanoscale Devices. IEEE Transactions on Nuclear Science, 2019, 66, 262-269.	2.0	7
76	Study of the Impact of Past Extreme Solar Events on the Modern Air Traffic. Space Weather, 2021, 19, e2020SW002665.	3.7	7
77	Characterization of the Neutron Environment and SEE Investigations at the CERN-EU High Energy Reference Field and at the Pic du Midi. IEEE Transactions on Nuclear Science, 2013, 60, 2411-2417.	2.0	6
78	Atmospheric Radiation Environment Effects on Electronic Balloon Board Observed During Polar Vortex and Equatorial Operational Campaigns. IEEE Transactions on Nuclear Science, 2014, 61, 1703-1709.	2.0	6
79	Extensive air shower Monte Carlo modeling at the ground and aircraft flight altitude in the South Atlantic Magnetic Anomaly and comparison with neutron measurements. Astroparticle Physics, 2017, 88, 17-29.	4.3	6
80	Statistical Deviations from the Theoretical only-SBU Model to Estimate MCU rates in SRAMs. IEEE Transactions on Nuclear Science, 2017, , 1-1.	2.0	6
81	Compact Modelling of Single Event Transient in Bulk MOSFET for SPICE: Application to Elementary Circuit. , 2018, , .		6
82	Analysis of Exposure to Solar and Galactic Cosmic Radiations of Flights Representative of the European International Air Traffic. Radiation Research, 2018, 190, 271.	1.5	6
83	Update of Single Event Effects Radiation Hardness Assurance of Readout Integrated Circuit of Infrared Image Sensors at Cryogenic Temperature. Sensors, 2018, 18, 2338.	3.8	6
84	Compact Modeling of Single-Event Latchup of Integrated CMOS Circuit. IEEE Transactions on Nuclear Science, 2019, 66, 1510-1515.	2.0	6
85	Total Ionizing Dose Effects in FDSOI Compact Model for IC Design. IEEE Transactions on Nuclear Science, 2019, 66, 1628-1633.	2.0	6
86	Impact of the Bitcell Topology on the Multiple-Cell Upsets Observed in VLSI Nanoscale SRAMs. IEEE Transactions on Nuclear Science, 2021, 68, 2383-2391.	2.0	6
87	Laser-Induced Fault Effects in Security-Dedicated Circuits. IFIP Advances in Information and Communication Technology, 2015, , 220-240.	0.7	6
88	Laser Mapping of SRAM sensitive cells. A way to obtain input parameters for DASIE calculation code. European Conference on Radiation and Its Effects on Components and Systems, Proceedings of the, 2005, , .	0.0	5
89	Atmospheric Radiation Environment Analyses Based-on CCD Camera, Neutron Spectrometer and Multi-Physics Modeling. IEEE Transactions on Nuclear Science, 2013, 60, 4660-4667.	2.0	5
90	Layout-aware laser fault injection simulation and modeling: From physical level to gate level. , 2014, , .		5

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91	Pulse quenching induced by multi-collection effects in 45 nm silicon-on-insulator technology. Semiconductor Science and Technology, 2016, 31, 124002.	2.0	5
92	Study of atmospheric muon interactions in Si nanoscale devices. Journal of Instrumentation, 2017, 12, P12021-P12021.	1.2	5
93	Impact of D-Flip-Flop Architectures and Designs on Single-Event Upset Induced by Heavy Ions. IEEE Transactions on Nuclear Science, 2018, 65, 1776-1782.	2.0	5
94	Single-Event Transients in Readout Circuitries at Low Temperature Down to 50 K. IEEE Transactions on Nuclear Science, 2018, 65, 119-125.	2.0	5
95	Analysis of the angular distribution of cosmic-ray-induced particles in the atmosphere based on Monte Carlo simulations including the influence of the Earth's magnetic field. Astroparticle Physics, 2018, 97, 106-117.	4.3	5
96	SEFI Modeling in Readout Integrated Circuit Induced by Heavy Ions at Cryogenic Temperatures. IEEE Transactions on Nuclear Science, 2019, 66, 452-457.	2.0	5
97	Simulation of atmospheric cosmic-rays and their impacts based on pre-calculated databases, physical models and computational methods. Journal of Computational Science, 2021, 51, 101307.	2.9	5
98	Implementing realistic heavy ion tracks in a SEE prediction tool: Comparison between different approaches. , 2011, , .		4
99	Multi-physics modelling contributions to investigate the atmospheric cosmic rays on the single event upset sensitivity along the scaling trend of CMOS technologies. Radiation Protection Dosimetry, 2014, 161, 290-294.	0.8	4
100	Ground Albedo Neutron Impacts to Seasonal Variations of Cosmic-Ray-Induced Neutron in Medium Geomagnetic Latitude and Antarctica: Impacts on Soft Error Rate. IEEE Transactions on Nuclear Science, 2017, 64, 622-629.	2.0	4
101	Study of Secondary Scattering/Albedo Neutron Fields and Their Impacts on SER as Function of Scene Topologies. IEEE Transactions on Nuclear Science, 2020, 67, 201-209.	2.0	4
102	Experimental and Analytical Study of the Responses of Nanoscale Devices to Neutrons Impinging at Various Incident Angles. IEEE Transactions on Nuclear Science, 2020, 67, 2345-2352.	2.0	4
103	Impact of Ground-Level Enhancement (GLE) Solar Events on Soft Error Rate for Avionics. IEEE Transactions on Aerospace and Electronic Systems, 2020, 56, 3674-3684.	4.7	4
104	Impact of Dynamic Voltage Scaling on SEU Sensitivity of COTS Bulk SRAMs and A-LPSRAMs Against Proton Radiation. IEEE Transactions on Nuclear Science, 2022, 69, 126-133.	2.0	4
105	Circuit-Level Hardening Techniques to Mitigate Soft Errors in FinFET Logic Gates. , 2019, , .		4
106	A physical prediction model issued from TCAD investigations for single event burnout in power MOSFETs. , 2013, , .		3
107	Single Event Transient and Functional Interrupt in Readout Integrated Circuit of Infrared Image Sensors at Low Temperatures. , 2017, , .		3
108	Sleep Transistors to Improve the Process Variability and Soft Error Susceptibility. , 2019, , .		3

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109	Simulation of Cosmic Radiation Transport Inside Aircraft for Safety Applications. IEEE Transactions on Aerospace and Electronic Systems, 2020, 56, 3462-3475.	4.7	3
110	Collected charge analysis for a new advanced transient model by TCAD simulation in 90nm technology. , 2009, , .		2
111	IC components reliability concerns for avionics end-users. , 2013, , .		2
112	Mirage: A New Proton Facility for the Study of Direct Ionization in Sub-100nm Technologies. , 2014, , .		2
113	Prediction Methodology for Proton Single Event Burnout: Application to a STRIPFET Device. IEEE Transactions on Nuclear Science, 2015, 62, 2635-2642.	2.0	2
114	Analysis of low temperature on single event Latchup mechanisms by TCAD simulations for applications down to 50K. , 2016, , .		2
115	INVESTIGATION OF THE INFLUENCE OF THE POSITION INSIDE A SMALL AIRCRAFT ON THE COSMIC-RADIATION-INDUCED DOSE. Radiation Protection Dosimetry, 2017, 176, 217-225.	0.8	2
116	AXEL lab.: Representative Ground Simulation for Investigating Radiation effects in Materials and Electronics. , 2017, , .		2
117	Environmental radiation dosimetry at high southern latitudes with Liulin type instruments. Journal of Environmental Radioactivity, 2019, 208-209, 105993.	1.7	2
118	DASIE Analytical Version: A Predictive Tool for Neutrons, Protons and Heavy Ions Induced SEU Cross Section. European Conference on Radiation and Its Effects on Components and Systems, Proceedings of the, 2005, , .	0.0	1
119	ICARE on-board SAC-C: More than 8 years of SEU & MCU, analysis and prediction. , 2009, , .		1
120	Effect of multiple injections on the SEEs in SRAM cell. , 2009, , .		1
121	A New Platform to Study the Correlation between Aging and SEE Sensitivity for the Reliability of Deep SubMicron Electronics Devices. , 0, , .		1
122	Some properties of only-SBUs scenarios in SRAMs applied to the detection of MCUs. , 2016, , .		1
123	Impact of aging on the soft error rate of 6T SRAM for planar and bulk technologies. Microelectronics Reliability, 2017, 76-77, 159-163.	1.7	1
124	Implications of Work-Function Fluctuation on Radiation Robustness of FinFET XOR Circuits. , 2017, , .		1
125	Circuit design using Schmitt Trigger to reliability improvement. Microelectronics Reliability, 2020, 114, 113754.	1.7	1
126	First eighteen months of simultaneously measurements of the energy spectrum of CosmicRay induced neutrons on the Pic-du-Midi Observatory and the Concordia Station in Antarctica. , 2017, , .		1

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127	Analysis of Quasi-monoenergetic neutron SEU cross sections for Terrestrial applications. European Conference on Radiation and Its Effects on Components and Systems, Proceedings of the, 2005, , .	0.0	0
128	DSM reliability concerns — Impact on safety assessment. , 2014, , .		0
129	Atmospheric radiation environment analyses based-on CCD camera at various mountain altitudes and underground sites. E3S Web of Conferences, 2016, 12, 03003.	0.5	0
130	Evaluation of the sensitivity of a COTS 90-nm SRAM memory at low bias voltage. , 2016, , .		0
131	Circuit-Level Techniques to Mitigate Process Variability and Soft Errors in FinFET Designs. , 2019, , .		0
132	Evidence of a Dynamic Fault Model in the DICE Radiation-Hardened Cell. , 2020, , .		0
133	Engineering TID modeling for the SEE and performances evaluations of integrated CMOS circuits at cryogenic temperatures. , 2019, , .		0
134	SEU Prediction for Very Integrated Circuits based on Advanced Physical Considerations. , 2019, , .		0