

# Niccolò F Rinaldi

## List of Publications by Year in descending order

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Version: 2024-02-01

40  
papers

636  
citations

759233

12  
h-index

752698

20  
g-index

40  
all docs

40  
docs citations

40  
times ranked

251  
citing authors

#	ARTICLE	IF	CITATIONS
1	Si/SiGe:C and InP/GaAsSb Heterojunction Bipolar Transistors for THz Applications. Proceedings of the IEEE, 2017, 105, 1035-1050.	21.3	84
2	Fast novel thermal analysis simulation tool for integrated circuits (FANTASTIC). , 2014, , .		64
3	Matrix reduction tool for creating boundary condition independent dynamic compact thermal models. , 2015, , .		37
4	Compact Dynamic Modeling for Fast Simulation of Nonlinear Heat Conduction in Ultra-Thin Chip Stacking Technology. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 1785-1795.	2.5	32
5	Influence of Scaling and Emitter Layout on the Thermal Behavior of Toward-THz SiGe:C HBTs. IEEE Transactions on Electron Devices, 2014, 61, 3386-3394.	3.0	31
6	Analysis of the UIS behavior of power devices by means of SPICE-based electrothermal simulations. Microelectronics Reliability, 2013, 53, 1713-1718.	1.7	27
7	Delphi-like dynamical compact thermal models using model order reduction. , 2017, , .		24
8	Structure-preserving approach to multi-port dynamic compact models of nonlinear heat conduction. Microelectronics Journal, 2015, 46, 1129-1137.	2.0	22
9	Influence of Concurrent Electrothermal and Avalanche Effects on the Safe Operating Area of Multifinger Bipolar Transistors. IEEE Transactions on Electron Devices, 2009, , .	3.0	21
10	Parametric compact thermal models by moment matching for variable geometry. , 2014, , .		21
11	Analysis of the thermal behavior of AlGaIn/GaN HEMTs. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 1343-1351.	3.5	19
12	Structure preserving approach to parametric dynamic compact thermal models of nonlinear heat conduction. , 2015, , .		19
13	Advanced thermal simulation of SiGe:C HBTs including back-end-of-line. Microelectronics Reliability, 2016, 67, 38-45.	1.7	19
14	Fast Nonlinear Dynamic Compact Thermal Modeling With Multiple Heat Sources in Ultra-Thin Chip Stacking Technology. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2017, 7, 58-69.	2.5	18
15	Microscopic Hot-Carrier Degradation Modeling of SiGe HBTs Under Stress Conditions Close to the SOA Limit. IEEE Transactions on Electron Devices, 2017, 64, 923-929.	3.0	18
16	Multi-port dynamic compact thermal models of nonlinear heat conduction. , 2014, , .		16
17	Dynamic Electrothermal Macromodeling: an Application to Signal Integrity Analysis in Highly Integrated Electronic Systems. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 1237-1243.	2.5	15
18	Calibration of detailed thermal models by parametric dynamic compact thermal models. , 2016, , .		15

#	ARTICLE	IF	CITATIONS
19	Novel approach for the extraction of nonlinear compact thermal models. , 2017, , .		14
20	Versatile MOR-based boundary condition independent compact thermal models with multiple heat sources. Microelectronics Reliability, 2018, 87, 194-205.	1.7	14
21	Connecting MOR-based boundary condition independent compact thermal models. , 2017, , .		12
22	Analysis of the Bipolar Current Mirror Including Electrothermal and Avalanche Effects. IEEE Transactions on Electron Devices, 2009, 56, 1309-1321.	3.0	11
23	Novel partition-based approach to dynamic compact thermal modeling. , 2016, , .		11
24	Analysis of Electrothermal Effects in Bipolar Differential Pairs. IEEE Transactions on Electron Devices, 2011, 58, 966-978.	3.0	10
25	Experimental DC Extraction of the Base Resistance of Bipolar Transistors: Application to SiGe:C HBTs. IEEE Transactions on Electron Devices, 2016, 63, 2691-2699.	3.0	8
26	3-D thermal models calibration by parametric dynamic compact thermal models. Microelectronics Reliability, 2017, 79, 371-379.	1.7	8
27	Analysis of Electrothermal and Impact-Ionization Effects in Bipolar Cascode Amplifiers. IEEE Transactions on Electron Devices, 2018, 65, 431-439.	3.0	8
28	Influence of layout design and on-wafer heatspreaders on the thermal behavior of fully-isolated bipolar transistors: Part I " Static analysis. Solid-State Electronics, 2010, 54, 745-753.	1.4	7
29	Influence of layout design and on-wafer heatspreaders on the thermal behavior of fully-isolated bipolar transistors: Part II " Dynamic analysis. Solid-State Electronics, 2010, 54, 754-762.	1.4	6
30	Advanced thermal resistance simulation of SiGe HBTs including backend cooling effect. , 2015, , .		6
31	On the safe operating area of bipolar cascode amplifiers. , 2013, , .		5
32	Effective Electrothermal Analysis of Electronic Devices and Systems with Parameterized Macromodeling. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2015, 5, 788-796.	2.5	4
33	Sidewall effects on maximum cutoff frequency and forward transit time in downscaled bipolar transistors. Solid-State Electronics, 1994, 37, 1731-1737.	1.4	2
34	Electrothermal reduced equivalents of highly integrated electronic systems with multi-port positive fraction foster expansion. , 2012, , .		2
35	Impact of scaling on the DC/RF thermal behavior of SiGe HBTs for high-frequency applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 1233-1238.	3.5	2
36	Modeling two-dimensional effects on base and collector currents in narrow-emitter self-aligned bipolar transistors. Solid-State Electronics, 1993, 36, 397-405.	1.4	1

#	ARTICLE	IF	CITATIONS
37	A microcontroller-based pulse generator for isothermal I&#x2013;V measurements. , 2012, , .		1
38	Evaluation and Modeling of Voltage Stress-Induced Hot Carrier Effects in High-Speed SiGe HBTs. , 2014, , .		1
39	Thermal Effects in Thin Silicon Dies: Simulation and Modelling. , 2011, , 287-308.		1
40	Influence of vertical scaling and temperature on impact-ionization effects in SiGe HBTs. , 2012, , .		0