SELEZIONE N. 4/2012

Giovanni Crupi

CURRICULUM VITAE

17th February 2012

PERSONAL DATA

Birth's city	
Birth's day	
Position held	
Address	
Phone	
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E-mail	
Skype name	

EDUCATION

Dec. 2006	Ph.D. degree from the University of Messina, Italy Thesis's title: "Characterization and Modelling of Advanced GaAs, GaN and Si Microwave FETs" Advisors: Prof. Alina Caddemi (University of Messina, Italy) Prof. Dominique Schreurs (Katholieke Universiteit Leuven, Belgium)
Feb. 2004	Second Level University Master in "Microwave Systems and Technologies for Telecommunications"
Apr. 2003	M.S. degree in Electronic Engineering cum Laude (with Honors) from the University of Messina Thesis's title: "Microwave PHEMT characterization and small signal modeling by direct extraction procedures" (in italian) Advisors: Prof. Alina Caddemi (University of Messina, Italy) Prof. Nicola Donato (University of Messina, Italy)
Aug. 1997	"Diploma di maturità classica" with full grade 60/60 from the "Liceo classico-Ginnasio Pitagora" of Crotone, Italy

PROFESSIONAL EXPERIENCE

Sep. 2011 – until now	Research Contract with the "Engineering Department", University of Ferrara
2010/2011	Contract Professor of "Microwave Electronics", Electronic Enginnering, University of Messina
2009/2010	Contract Professor of "Optoelectronics", Electronic Enginnering, University of Messina
Sep. 2007 – Sep. 2011	Research Contract with "Dipartimento di Fisica della Materia e Ingegneria Elettronica" University of Messina under the context of "IMT-ARSEL" project
Aug. 2006 - June 2007	Employment contract at the K.U.Leuven Research subject: small and large signal modeling of Fin transistors/varactors Scientific Supervisor: Prof. Dominique Schreurs
June 2009	Visiting scientist at Warsaw University of Technology, Warsaw, Poland Research subject: noise modeling of advanced microwave transistors Scientific Supervisor: Dr. Wiatr Wojciech
Mar. 2010 - May 2010	Visiting scientist at the Katholieke Universiteit (K.U.) Leuven and at the Interuniversity Microelectronics Center (IMEC), Leuven, Belgium
Nov. 2008	Research subject: small and large signal modeling of advanced microwave transistors
Jan. 2008 – Feb. 2008	Scientific Supervisor: Prof. Dominique Schreurs
Sep. 2007	
Feb. 2006 - July 2006	
Sep. 2005 - Dec. 2005	
May 2005 - June 2005	

TEACHING ACTIVITIES

2010 - 2011	Course title: "Microwave Electronics", Master Degree (Laurea Specialistica) in Electronic Engineering, University of Messina, 2010/2011.
2009 - 2010	Course title: "Optoelectronics", Master Degree (Laurea Specialistica) in Electronic Engineering, University of Messina, 2009/2010.
Sep. 2007	Course title: "Fundamentals of Electronics", Master in "Meccatronica per le nuove attività produttive – MECAP", University of Messina, September 2007.
Feb. 2007	Invited Lecture title: "Implementation of non-linear model based on lookup table approach", 3rd TARGET Winter School on "CAD Implementation of Non-Linear Device Model and Advanced Measurements," Santander, Spain, February 2007.

AWARDS

June 2010	Outstanding Paper Award for the contribution "Source-pull characterization of FinFET noise," W. Wiatr, **G. Crupi**, A. Caddemi, A. Mercha, and D. M. M.-P. Schreurs, *International Conference Mixed Design of Integrated Circuits and Systems* (MIXDES), Wrocław, Poland, 24-26 June 2010, pp. 425-430.
July 2005	"Mario Sannino" - award at the Meeting of Italian Electronics Group for the contribution "Caratterizzazione completa di GaAs HEMT: prestazioni DC ed LF, parametri di scattering e parametri di rumore e loro dipendenza dalla temperature," A. Caddemi, **G. Crupi**, N. Donato, and F. Catalfamo, *Riunione annuale del Gruppo Elettronica* (GE), Giardini Naxos (ME), Italy, 30 June - 2 July 2005.
May 2004	Student travel grant awarded by IES Student Activities Committee to participate to IEEE-ISIE 2004 for the contribution "Bias and temperature dependent modeling of on wafer HEMT's by a direct and fast procedure," **G. Crupi** and N. Donato, *IEEE International Symposium on Industrial Electronics* (ISIE), Ajaccio, France, 4-7 May 2004, pp. 1543-1548.

REVIEWER

IEEE Journals	IEEE Transactions Microwave Theory and Techniques IEEE Microwave and Wireless Components Letters IEEE Transactions on Electron Devices IEEE Transactions on Instrumentation and Measurement IEEE Transactions on Nanotechnology
Other Journals	Solid-State Electronics Microelectronics Journal Journal of Electromagnetic Waves and Applications Progress in Electromagnetics Research Analog Integrated Circuits and Signal Processing IET Circuits, Devices & Systems IET Microwaves, Antennas & Propagation IETE Technical Review International Journal of Microwave and Wireless Technologies

PROJECT MANAGEMENT

Coordinator of the project "Progetto Giovani Ricercatori" ("Project for Young Researchers") funded in 2008 by the University of Messina. The project aim is the characterization and modeling of advanced HEMT for microwave applications.

He was involved with several European and Italian projects: network TARGET "Top Amplifier Research Groups in a European Team", "Nano-RF" project under Contract IST-027150, "IMT-ARSEL" project prot. RBIP06R9X5 with financial support by Italian MIUR, and "CMOGAN" project through the contribution of the Italian Ministero degli Affari Esteri, Direzione Generale per la Promozione e la Cooperazione Culturale.

MISCELLANEOUS INFORMATION

In 2011 he has organized the Workshop on "From De-embedding to Waveform Engineering" at European Microwave Week (EuMW), Manchester, UK.
In 2008 he served as session chair of European Microwave Week (EuMW) Workshop on "Advanced in Characterization and Modeling of Emerging Low-Power and High-Power Devices", Amsterdam, Netherlands.
In 2007 he served as a session co-chair of the 8th IEEE International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Service (TELSIKS), Nis, Serbia.

AREAS OF EXPERTISE

- Anlytical extraction of small signal models for advanced microwave devices
- Anlytical extraction of large signal models for advanced microwave devices
- DC and microwave electrical characterization of advanced microwave devices
- Noise modeling of advanced microwave devices

PUBLICATION SUMMARY

International Journals: 37 (31 ISI)

- Solid-State Electronics: 5
- IEEE Transactions on Microwave Theory and Techniques: 4
- Microwave and Optical Technology Letters: 4
- Microelectronic Engineering: 4
- IEEE Microwave and Wireless Components Letters: 3
- International Journal of RF and Microwave Computer-Aided Engineering: 3
- Microelectronics Journal: 3
- Electronics Letters: 2
- IEEE Transactions on Instrumentation and Measurement: 1
- IET Circuits, Devices & Systems: 1
- Microelectronics Reliability: 1
- Microwave Review: 2
- International Journal of Microwave and Wireless Technologies: 1
- International Journal of Microwave and Optical Technology: 1
- Journal of Automatic Control: 1
- Electronics: 1

International Conferences: 33 (3 INVITED)

- IEEE International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Service (TELSIKS): 6 (1 INVITED)
- IEEE International Workshop on Integrated Nonlinear Microwave and Millimetre-wave Circuits (INMMiC): 3
- International Conference Mixed Design of Integrated Circuits and Systems (MIXDES): 2
- IEEE Automatic RF Techniques Group Conference (ARFTG) : 2
- International Microwave Symposium (IMS): 1
- IEEE Symposium on VLSI Technology: 1
- IEEE Instrumentation and Measurement Technology Conference (IMTC): 1
- IEEE International Symposium on Industrial Electronics (ISIE): 1
- IEEE International Conference on Microwaves, Radar, and Wireless Communications (MIKON): 1
- International Symposium on Microwave and Optical Technology (ISMOT): 1 (INVITED)
- International Conference Semiconductor Dresden (SCD): 1 (INVITED)
- European Radar Conference (EuRAD): 1
- European Microwave Integrated Circuits Conference (EuMIC): 1
- European Microwave Conference (EuMC): 1
- Symposium on Neural Network Applications in Electrical Engineering (NEUREL): 1
- AIP Proceeding on the 20th International Conference on Noise and Fluctuations (ICNF): 1
- International Conference on Microelectronics (MIEL): 1
- Conference for Electronics, Telecommunications, Computers, Automatic Control and Nuclear Engineering (ETRAN): 1
- International Microwave Symposium (IMS) Workshop on "Parameter Extraction Strategies for Compact Transistor Models": 1
- Automatic RF Techniques Group Conference (ARFTG) Workshop on "Nonlinear measurements to investigate memory effects of RF transistors and active devices": 1
- European Microwave Week (EuMW) Workshop on "Advanced in Characterization and Modeling of Emerging Low-Power and High-Power Devices": 1
- European Microwave Week (EuMW) Workshop on "From De-embedding to Waveform Engineering": 1
- International MOS-AK Meeting: 1
- TARGET Winter School on CAD Implementation of Non-Linear Device Model and Advanced Measurements: 1

CITATION COUNT

- ISI Web of Science: 150
- Scopus: 206
- Google Schoolar: 227

H-INDEX

- ISI Web of Science: 8
- Scopus: 10
- Google Schoolar: 10

INTERNATIONAL JOURNALS

[IJ37] G. Avolio, D. M. M.-P. Schreurs, A. Raffo, **G. Crupi**, G. Vannini, and B. Nauwelaers, "Waveforms only based nonlinear de-embedding in active devices," accepted for publication in *IEEE Microwave and Wireless Components Letters*.

[IJ36] **G. Crupi**, D. M. M.-P. Schreurs, A. Caddemi, A. Raffo, F. Vanaverbeke, G. Avolio, G. Vannini, and W. De Raedt, "In-deep insight into the extrinsic capacitance impact on GaN HEMT modeling at mm-wave band," accepted for publication in *International Journal of RF and Microwave Computer-Aided Engineering*.

[IJ35] Z. Marinković, **G. Crupi**, D. M. M.-P. Schreurs, A. Caddemi, and V. Marković, "Neural modeling of high-frequency forward transmission coefficient for HEMT and FinFET technologies," *Microwave Review*, vol. 17, no 2, pp. 17-22, December 2011.

[IJ34] G. Avolio, D. M. M.-P. Schreurs, A. Raffo, **G. Crupi**, I. Angelov, G. Vannini, and B. Nauwelaers, "Identification technique of FET model based on vector nonlinear measurements," *Electronics Letters*, vol. 47, no 24, pp. 1323-1324, November 2011.

[IJ33] **G. Crupi**, G. Avolio, A. Raffo, P. Barmuta, D. M. M.-P. Schreurs, A. Caddemi, and G. Vannini, "Investigation on the thermal behavior for microwave GaN HEMTs," *Solid-State Electronics*, vol. 64, no 1, pp. 28-33, October 2011.

[IJ32] Z. Marinković, **G. Crupi**, D. M. M.-P. Schreurs, A. Caddemi, and V. Marković, "Microwave FinFET modeling based on artificial neural networks including lossy silicon substrate," *Microelectronic Engineering*, vol. 88, no 10, pp. 3158-3163, October 2011.

[IJ31] D. Deschrijver, G. Avolio, D. M. M.-P. Schreurs, T. Dhaene, **G. Crupi**, and L. Knockaert, "Microwave small-signal modeling of FinFETs using multi-parameter rational fitting method," *Electronics Letters*, vol. 47, no 19, pp. 1084-1086, September 2011.

[IJ30] **G. Crupi**, D. M. M.-P. Schreurs, A. Caddemi, A. Raffo, F. Vanaverbeke, G. Avolio, G. Vannini, and W. De Raedt, "High-frequency effects of the extrinsic capacitance on the GaN HEMT modeling," *IEEE Microwave and Wireless Components Letters*, vol. 21, no 8, pp. 445-457, August 2011.

[IJ29] **G. Crupi**, A. Raffo, D. M. M.-P. Schreurs, G. Avolio, V. Vadalà, S. Di Falco, A. Caddemi, and G. Vannini, "Accurate GaN HEMT non-quasi-static large-signal model including dispersive effects," *Microwave and Optical Technology Letters*, vol. 53, no 3, pp. 692-697, March 2011.

[IJ28] **G. Crupi**, A. Caddemi, D. M. M.-P. Schreurs, W. Wiatr, and A. Mercha, "Microwave noise modeling of FinFETs," *Solid-State Electronics*, vol. 56, no 1, pp. 18-22, February 2011.

[IJ27] A. Raffo, G. Avolio, D. Schreurs, S. Di Falco, V. Vadalà, F. Scappaviva, **G. Crupi**, B. Nauwelaers, and G. Vannini "On the evaluation of the high-frequency load line in active devices," *International Journal of Microwave and Wireless Technologies*, vol. 3, no 1, pp. 19-24, February 2011.

[IJ26] Z. Marinković, **G. Crupi**, A. Caddemi, and V. Marković, "Two neural approaches for small-signal modelling of GaAs HEMTs," *Journal of Automatic Control*, vol. 20, no 1, pp. 39-44, December 2010.

[IJ25] **G. Crupi**, D. M. M.-P. Schreurs, and A. Caddemi, "Theoretical and experimental determination of onset and scaling of non-quasi-static phenomena for interdigitated FinFETs," *IET Circuits, Devices & Systems*, vol. 5, no 6, pp. 531-538, November 2010.

[IJ24] **G. Crupi**, G. Avolio, D. M. M.-P. Schreurs, G. Paillonc y, A. Caddemi, and B. Nauwelaers, "Vector two-tone measurements for validation of nonlinear microwave FinFET model," *Microelectronic Engineering*, vol. 87, no 10, pp. 2008-2013, October 2010.

[IJ23] Z. Marinković, **G. Crupi**, A. Caddemi, and V. Marković, "Comparison between analytical and neural approaches for multibias small signal modeling of microwave scaled FETs," *Microwave and Optical Technology Letters*, vol. 52, no 10, pp. 2238-2244, October 2010.

[IJ22] **G. Crupi**, D. M. M.-P. Schreurs, A. Caddemi, "Accurate silicon dummy structure model for nonlinear microwave FinFET modeling," *Microelectronics Journal*, vol. 41, no 9, pp. 574-578, September 2010.

[IJ21] A. Caddemi and **G. Crupi**, "On the noise measurements and modeling for on wafer HEMTs up to 26.5 GHz," *Microwave and Optical Technology Letters*, vol. 52, no 8, pp. 1799-1803, August 2010.

[IJ20] A. Raffo, V. Vadalà, D. M. M.-P. Schreurs, **G. Crupi**, G. Avolio, A. Caddemi, and G. Vannini, "Nonlinear dispersive modeling of electron devices oriented to GaN power amplifier design," *IEEE Transactions on Microwave Theory and Techniques*, vol. 58, no 4, pp. 710-718, April 2010.

[IJ19] **G. Crupi**, D. M. M.-P. Schreurs, A. Caddemi, A. Raffo, and G. Vannini, "Investigation on the non-quasi-static effect implementation for millimeter-wave FET models," *International Journal of RF and Microwave Computer-Aided Engineering*, vol. 20, no 1, pp. 87-93, January 2010.

[IJ18] M. Homayouni, D. M. M.-P. Schreurs, **G. Crupi**, and B. Nauwelaers, "Technology independent non-quasi-static table-based nonlinear model generation," *IEEE Transactions on Microwave Theory and Techniques*, vol. 57, no 12, pp. 2845-2852, December 2009.

[IJ17] **G. Crupi**, D. M. M.-P. Schreurs, A. Caddemi, I. Angelov, M. Homayouni, A. Raffo, G. Vannini, and B. Parvais, "Purely analytical extraction of an improved nonlinear FinFET model including non-quasi-static effects," *Microelectronic Engineering*, vol. 86, no 11, pp. 2283-2289, November 2009.

[IJ16] A. Caddemi, **G. Crupi**, and A. Macchiarella, "On wafer scaled GaAs HEMTs: direct and robust small signal modelling up to 50 GHz," *Microwave and Optical Technology Letters*, vol. 51, no 8, pp. 1958-1963, August 2009.

[IJ15] **G. Crupi**, D. M. M.-P. Schreurs, and A. Caddemi, "On the small signal modeling of advanced microwave FETs: a comparative study," *International Journal of RF and Microwave Computer-Aided Engineering*, vol. 18, pp. 417-425, September 2008.

[IJ14] **G. Crupi**, D. M. M.-P. Schreurs, I. Angelov, A. Caddemi, and B. Parvais, "Non-linear FinFET modeling: lookup table and empirical approaches," *International Journal of Microwave and Optical Technology*, vol. 3, pp. 157-164, July 2008.

[IJ13] **G. Crupi**, D. M. M.-P. Schreurs, M. Dehan, D. Xiao, A. Caddemi, A. Mercha, and S. Decoutere, "Analytical extraction of small and large signal models for FinFET varactors," *Solid-State Electronics*, vol. 52, pp. 704-710, May 2008.

[IJ12] **G. Crupi**, D. M. M.-P. Schreurs, A. Raffo, A. Caddemi, and G. Vannini, "A new millimeter wave small-signal modeling approach for pHEMTs accounting for the output conductance time delay," *IEEE Transactions on Microwave Theory and Techniques*, vol. 56, pp. 741-746, April 2008.

[IJ11] **G. Crupi**, D. M. M.-P. Schreurs, D. Xiao, A. Caddemi, B. Parvais, A. Mercha, and S. Decoutere, "Determination and validation of new nonlinear FinFET model based on lookup tables," *IEEE Microwave and Wireless Components Letters*, vol. 17, no 5, pp. 361-363, May 2007.

[IJ10] **G. Crupi**, D. M. M.-P. Schreurs, B. Parvais, A. Caddemi, A. Mercha, and S. Decoutere, "Scalable and multibias high frequency modeling of multi fin FETs," *Solid-State Electronics*, vol. 50, no. 10/11, pp. 1780-1786, November/December 2006.

[IJ9] A. Caddemi, F. Catalfamo, **G. Crupi**, and N. Donato, "DC to microwave characterization and modeling of the cryogenic performance of low-noise HEMT's," *Microwave Review*, vol. 12, no. 2, pp. 17-28, November 2006.

[IJ8] **G. Crupi**, D. Xiao, D. M. M.-P. Schreurs, E. Limiti, A. Caddemi, W. De Raedt, and M. Germain, "Accurate multibias equivalent circuit extraction for GaN HEMTs," *IEEE Transactions on Microwave Theory and Techniques*, vol. 54, no. 10, pp. 3616-3622, October 2006.

[IJ7] A. Caddemi, **G. Crupi**, and N. Donato, "Microwave characterization and modeling of packaged HEMTs by a direct extraction procedure down to 30 K," *IEEE Transactions on Instrumentation and Measurement*, vol. 55, no. 2, pp. 465-470, April 2006.

[IJ6] A. Caddemi, **G. Crupi**, and N. Donato, "Temperature effects on DC and small signal RF performance of AlGaAs/GaAs HEMTs," *Microelectronics Reliability*, vol. 46, no. 1, pp. 169-173, January 2006.

[IJ5] A. Caddemi, **G. Crupi**, and N. Donato, "Impact of the self generated heat on the scalability of HEMTs," *Microelectronic Engineering*, vol. 82, no. 2, pp. 143-147, October 2005.

[IJ4] M. Alvaro, A. Caddemi, **G. Crupi**, and N. Donato, "Temperature and bias investigation of self heating effect and threshold voltage shift in pHEMT's," *Microelectronics Journal*, vol. 36, no. 8, pp. 732-736, August 2005.

[IJ3] A. Caddemi, **G. Crupi**, and N. Donato, "On the soft breakdown phenomenon in AlGaAs/InGaAs HEMT: an experimental study down to cryogenic temperature," *Solid-State Electronics*, vol. 49, no. 6, pp. 928-934, June 2005.

[IJ2] A. Caddemi, N. Donato, and **G. Crupi**, "A robust approach for the direct extraction of HEMT circuit elements vs. bias and temperature," *Electronics*, vol. 8, no. 1, pp. 14-17, May 2004.

[IJ1] Caddemi, **G. Crupi**, and N. Donato, "A robust and fast procedure for the determination of the small signal equivalent circuit of HEMTs," *Microelectronics Journal*, vol. 35, no. 5, pp. 431-436, May 2004.

INTERNATIONAL CONFERENCES

[IC33] G. Avolio, D. M. M.-P. Schreurs, A. Raffo, I. Angelov, **G. Crupi**, G. Vannini, and B. Nauwelaers, "Waveforms-based large-signal identification of transistor models," accepted for publication in *International Microwave Symposium* (IMS), Montreal, Canada, June 2012.

[IC32] V. Vadalà, A. Raffo, G. Bosi, **G. Crupi**, and G. Vannini, "Transistor vector load-pull characterization for millimeter-wave power amplifier design," accepted for publication in *Automatic RF Techniques Group Conference* (ARFTG), Montreal, Canada, June 2012.

[IC31] Z. Marinković, **G. Crupi**, D. M. M.-P. Schreurs, A. Caddemi, and V. Marković, "High-frequency multi-bias small-signal neural modeling for FinFET," accepted for publication in *International Conference on Microelectronics*(MIEL), Nis, Serbia, May 2012.

[IC30] **G. Crupi**, D. M. M.-P. Schreurs, G. Avolio, A. Caddemi, A. Raffo, and G. Vannini, "De-embedding: linear versus non-linear," accepted for publication in *European Microwave Week* (EuMW) Workshop on "From De-embedding to Waveform Engineering", Manchester, UK, October 2011, pp. 1-24.

[IC29] G. Avolio, A. Raffo, D. M. M.-P. Schreurs, **G. Crupi**, G. Vannini, and B. Nauwelaers, "Bias and frequency dispersion of dynamic I-V characteristics in microwave transistors," *European Microwave Conference* (EuMC), Manchester, UK, October 2011, pp. 93-96.

[IC28] **G. Crupi**, A. Raffo, D. M. M.-P. Schreurs, G. Avolio, V. Vadalà, S. Di Falco, A. Caddemi, and G. Vannini, "GaN HEMT large-signal model accounting for both low-frequency dispersion and high-frequency non-quasi-static effects," accepted for publication in *IEEE International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Service* (TELSIKS), Nis, Serbia, October 2011, pp. 234-237.

[IC27] D. M. M.-P. Schreurs, Z. Marinković, and **G. Crupi**, "Team projects for ICT master students: evaluation and case studies," accepted for publication in *IEEE International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Service* (TELSIKS), Nis, Serbia, October 2011, pp. 361-364.

[IC26] Z. Marinković, **G. Crupi**, D. M. M.-P. Schreurs, A. Caddemi, and V. Markovic, "Artificial neural network based modeling of FinFET forward transmission Coefficient," accepted for publication in *IEEE International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Service* (TELSIKS), Nis, Serbia, October 2011, pp. 238-241.

[IC25] Z. Marinković, **G. Crupi**, D. Schreurs, V. Markovic, and A. Caddemi, "Neural modeling of the Y21 parameter of microwave FinFETs," *Conference for Electronics, Telecommunications, Computers, Automatic Control and Nuclear Engineering* (ETRAN), Banja Vrucica, Teslic, Bosnia and Herzegovina, 6-9 June, 2011, pp. MT3.21-1-MT3.21-4.

[IC24] P. Barmuta, G. Avolio, D. M. M.-P. Schreurs, A. Raffo, **G. Crupi**, K. Czuba, and G. Vannini "Temperature dependent vector large-signal measurements," *IEEE International Workshop on Integrated Nonlinear Microwave and Millimetre-wave Circuits* (INMMiC), Vienna, Austria, April 2011, pp. 21-24.

[IC23] G. Avolio, D. M. M.-P. Schreurs, A. Raffo, **G. Crupi**, G. Vannini, and B. Nauwelaers, "A de-embedding procedure oriented to the determination of FET intrinsic I-V characteristics from high-frequency large-signal measurements," *Automatic RF Techniques Group Conference* (ARFTG), Clearwater, FL, USA, November/December 2010.

[IC22] G. Avolio, D. M. M.-P. Schreurs, A. Raffo, **G. Crupi**, G. Vannini, and B. Nauwelaers, "Non-linear measurement techniques for the low- and high-frequency characterization of microwave active devices," *Automatic RF Techniques Group Conference* (ARFTG) *Workshop on "Nonlinear measurements to investigate memory effects of RF transistors and active devices"*, Clearwater, FL, USA, November/December 2010.

[IC21] **G. Crupi**, A. Caddemi, D. M. M.-P. Schreurs, A. Raffo, G. Avolio, M. Homayouni, and G. Vannini, "Non-quasi-static modeling of the intrinsic Y_{22} for GaN, Si, and GaAs mm-wave FET technologies," *European Radar Conference* (EuRAD), Paris, France, September/October 2010, pp. 316-319.

[IC20] Z. Marinković, **G. Crupi**, A. Caddemi, and V. Marković, "Development of a neural approach for bias-dependent scalable small-signal equivalent circuit modeling of GaAs HEMTs," *European Microwave Integrated Circuits Conference* (EuMIC), Paris, France, September 2010, pp. 182-185.

[IC19] Z. Marinković, **G. Crupi**, A. Caddemi, and V. Marković, "On the neural approach for FET small-signal modelling up to 50 GHz," *Symposium on Neural Network Applications in Electrical Engineering* (NEUREL), Belgrade, Serbia, 23-25 September 2010, pp. 89-92.

[IC18] D. M. M.-P. Schreurs, M. Homayouni, G. Avolio, **G. Crupi**, and A. Caddemi, "Capabilities and limitations of equivalent circuit models for modeling advanced Si FET devices," *International Conference Mixed Design of Integrated Circuits and Systems* (MIXDES), Wrocław, Poland, 24-26 June 2010, pp 70-74.

[IC17] W. Wiatr, **G. Crupi**, A. Caddemi, A. Mercha, and D. M. M.-P. Schreurs, "Source-pull characterization of FinFET noise," *International Conference Mixed Design of Integrated Circuits and Systems* (MIXDES), Wrocław, Poland, 24-26 June 2010, pp. 425-430.

[IC16] M. Homayouni, D. M. M.-P. Schreurs, **G. Crupi**, G. Avolio, and B. Nauwelaers, "Evaluation of lookup table non-quasi-static nonlinear models at microwave and mm-wave frequencies," *IEEE International Workshop on Integrated Nonlinear Microwave and Millimetre-wave Circuits* (INMMiC), Goteborg, Sweden, 26-27 April 2010, pp. 172-175.

[IC15] **G. Crupi**, D. M. M.-P. Schreurs, A. Caddemi, I. Angelov, R. Liu, W. De Raedt, and M. Germain, "Combined empirical and look-up table approach for non-quasi-static modelling of GaN HEMTs," *IEEE International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Service* (TELSIKS), Nis, Serbia, 7-9 October 2009, pp. 40-43.

[IC14] A. Caddemi, **G. Crupi**, and A. Macchiarella, "Extraction and analysis of noise parameters of on wafer HEMTs up to 26.5 GHz," *AIP Proceeding on the 20th International Conference on Noise and Fluctuations* (ICNF), Pisa, Italy, 14-19 June 2009, vol. 1129, pp. 615-618.

[IC13] D. M. M.-P. Schreurs, M. Myslinski, **G. Crupi**, D. Xiao, M. Homayouni, and G. Avolio, "Optimizing (non-)linear measurements for model construction and validation," *International Microwave Symposium* (IMS) *Workshop on "Parameter Extraction Strategies for Compact Transistor Models"*, Boston, Massachusetts, USA, 7-12 June 2009, 20 p..

[IC12] D. M. M.-P. Schreurs, **G. Crupi**, and A. Caddemi, "Microwave modelling of emerging device technologies," *International Conference Semiconductor Dresden* (SCD), Dresden, Germany, 29-30 April 2009, 4 p. (INVITED TALK).

[IC11] M. Myslinski, **G. Crupi**, M. Vanden Bossche, D. M. M.-P. Schreurs, and B. Nauwelaers, "Using large-signal measurements for transistor characterization and model verification in a device modeling program," *International MOS-AK Meeting*, San Francisco, CA, 13 December 2008, 34 p..

[IC10] M. Homayouni, D. M. M.-P. Schreurs, **G. Crupi**, and B. Nauwelaers, "Non-quasi-static nonlinear model for FinFETs using higher-order sources," *IEEE International Workshop on Integrated Nonlinear Microwave and Millimetre-wave Circuits* (INMMiC), Malaga, Spain, 24-25 November 2008, pp. 13-16.

[IC9] **G. Crupi**, D. M. M.-P. Schreurs, I. Angelov, A. Caddemi, M. Homayouni, and B. Parvais, "Direct extraction of table based non-linear device models," *European Microwave Week* (EuMW) Workshop on "Advanced in Characterization and Modeling of Emerging Low-Power and High-Power Devices", Amsterdam, Netherlands, 27 October 2008, pp. 97-119.

[IC8] L. Pantisano, L. Trojman, J. Mitard, B. DeJaeger, S. Severi, G. Eneman, **G. Crupi**, T. Hoffmann, I. Ferain, M. Meuris, and M. Heyns, "Fundamentals and extraction of velocity saturation in sub-100 nm (110)-Si and (100)-Ge," *IEEE Symposium on VLSI Technology*, Honolulu, Hawaii, 17-19 June 2008, pp 52-53.

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