

CURRICULUM VITAE – DIEGO AMICABILE

PERSONAL INFORMATION

Diego Amicabile

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Experienced Full-Stack Engineer pursuing a career in Machine Learning, Data Science and Data Engineering. Over 15 years' experience designing, developing and deploying IT applications. High competence in understanding customers' needs and requirements. Experience in international projects in three different countries (Italy, Germany, Poland) as a Software Developer and IT Project Manager.

SKILLS

Programming languages : Java, Python, Pascal, Javascript, C, C++

Databases : Java, Python, Pascal, Javascript, C, C++

Databases :

Operating systems : DOS, Windows, Unix and Linux.

Office softwares : Microsoft Office, Open Office, LaTeX, DocBook.

Scientific softwares Comsys, Maple, Matlab, Mathematica, Scilab, Keysight's VEE and ADS, NI LabVIEW.

Characterization tools : Spectrum analyzers, scopes, AWG, VNA, LSNA, probe stations, high impedance probes. I have developed calibration procedures and automated calibration and measurements processes.

System Level Modeling : Amplifiers, modulators and mixers with splines, neural networks or Volterra expansions. Bilateral Modeling by PhD model.

Circuit Level Modeling : Linear, nonlinear and electrothermal models of HEMTs.

Languages : French, English.

CERTIFICATIONS

National Instruments Certified LabVIEW Associate Developer (CLAD) *July 2014-July 2016*

AWARDS

- **Best Paper Award**, European Microwave Week - Gallium Arsenide Application Symposium (GAAS), 2002

T. Reveyrand, C. Maziere, J.M. Nébus, R. Quéré, A. Mallet, L. Lapierre, J. Sombrin, "A calibrated time domain envelope measurement system for the behavioral modeling of power amplifiers", European Microwave Week, GAAS 2002, pp. 237-240, Milano, September 2002

- **Best Student Paper Award**, Journées Nationales Micro-ondes (JNM), 2007

O. Jardel, F. De Groote, T. Reveyrand, C. Charbonniaud, J.P. Teyssier, R. Quéré, D. Floriot, "Modélisation du drain-lag dans les modèles électriques grand-sinaux de transistors HEMTs AlGaN/GaN", 15eme Journées Nationales Micro-ondes (JNM), 3C1, Toulouse, Mai 2007.

Up to 130 other references are available here :

<http://www.microwave.fr/publications.html>

PROFESSIONAL ORGANIZATIONS

The Institute of Electrical and Electronics Engineers (IEEE)

Member of :

- "Microwave Theory and Techniques" society *2007-present*
- "Instrumentation and Measurement" society *2007-present*
- MTT-11 "Microwave Measurements" technical committee *2009-present*
- IEEE MTT-S Technical Program Review Committee (TPRC) for IMS *2013-present*
- Judge for IEEE MTT-S Graduate Fellowships *2014-present*
- Chair for IEEE Denver Section Jt. Chapter, AP03/MTT17 *2015-2016*

The European Microwave Association (EuMA)

2009-2015

Measurement Engineer (CNRS) XLIM

June 2016-Present

Lecturer University of Colorado, Boulder

January 2016-May 2016

ECEN 5014-003, "Microwave Measurements and Calibration Fundamentals"

Research Associate University of Colorado at Boulder

June 2013-May 2016

Achievements :

- LabVIEW software for a "Do-it-yourself" Large-Signal Network Analyzer (LSNA)
- Time domain measurement setup in Scilab (VTD-SWAP)
- Outphasing PA characterizations
- Load-pull in time-domain

Measurement Engineer (CNRS) XLIM

December 2007-May 2013

Achievements :

- Korrigan European Project activities (RTP N°102.052 funded within the EUROPA framework in the CEPA2 priority area - ends early 2009) : GaN HEMTs circuits level modeling from european foundries (Thales / QinetiQ) for HPA, LNA and Switches
- Time domain measurement setup (LSNA) development on Scilab-TCL/TK (GUI, calibration and measurement automation)
- Development of HEMTs modeling tools (Scilab)
- Contractual measurements such as load-pull, linearity, high impedance probe in both frequency (VNA) and time domain (LSNA)

Research Associate - Visiting Scholar University of Colorado at Boulder *February 2012-July 2012*

GaN HEMTs based rectifiers characterizations and analysis

Research Engineer (CNRS) XLIM

May 2005-November 2007

Achievements :

- Frequency domain load-pull measurement setup (VNA in receiver mode with pulse capabilities) developemnt with Scilab (calibration procedures, measurement automation, data processing)
- Large signal caracterization of transistor (mainly european GaN in the framework of Korrigan
- Korrigan WP3.3 workpackage leader in Korrigan. Developpement of a internet database (Php / mySQL) to let partners share data and informations
- GaN HEMTs "spice-like" nonlinear models

Research Engineer NMDG Engineering bvba

November 2004-February 2005

Implementation of the High Impedance Probe module (calibration and measurements) in the commercial LSNA Software (based on Mathematica)

Postdoctoral scientist CNES (French Space Agency)

October 2003-September 2004

Development of characterization tools interfaces within the free open-source scientific package Scilab

Postdoctoral scientist CNES (French Space Agency)

October 2002-September 2003

Achievements :

- Large Signal Network Analysis (LSNA) characterizations in time-domain
- Development of a new LSNA module in order to investigate time domain waveforms at internal nodes of MMICs with high impedance probes (HIP) to validate circuits designs and to analyze nonlinear parametric stability
- Large Signal Network Analysis (LSNA) characterizations in time-domain

Researcher IRCOM / University of Limoges

October 1998-September 2002

Achievements :

- Development of the RF time-domain envelope measurement setup (hardware and software)
- Development of the calibration procedure of the time-domain envelope measurement setup
- Power amplifiers characterizations : Load-pull, IM3, NPR
- Behavioral modeling of nonlinear devices with memory effects for system level
- Development of a dynamic complex gain model with neural networks

Lecturer University of Limoges

October 1998-September 2002

RF devices, analog/digital communication systems, signal processing, propagation waves...

Postgraduate student IRCOM / University of Limoges

February 1998-July 1998

Circuits level simulations of IM3 and NPR in order to optimize the trade-off between linearity and efficiency