



Emanuele Cardillo

List of publications

13/02/2019

- [1] A. Caddemi, E. Cardillo, and G. Crupi, "Equivalent-circuit based modeling of the scattering andn parameters for multi-finger GaAs pHEMTs", accepted for publication in *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, Feb. 2019.
- [2] A. Caddemi and E. Cardillo, "On the microwave noise figure measurement: a virtual approach for mismatched devices," *Measurement*, vol. 137, pp. 116-121, Jan. 2018.
- [3] A. Caddemi, E. Cardillo, S. Patanè, and C. Triolo, "An accurate experimental investigation of an optical sensing microwave amplifier," *IEEE Sensors Journal*, vol. 18, Issue 22, pp. 9214 – 9221, Nov. 2018.
- [4] A. Caddemi and E. Cardillo, "A low-cost smart microwave radar for short range measurements," *Lecture Notes in Electrical Engineering*, vol. 512, pp. 41-47, Jul. 2018.
- [5] E. Cardillo and A. Caddemi, "A virtual test-bench for noise figure measurements of mismatched devices," *IEEE International Workshop on Metrology for Aerospace*, Jun. 2018.
- [6] A. Caddemi, E. Cardillo, and G. Crupi, "HEMT Sensitivity to Optical Radiation: Distinguishing Microwave Noise Aspect," *The 12th International Symposium on SiO₂ Advanced Dielectrics and Related Devices*, pp. 52-53, Jun. 2018 (Keynote speaker).
- [7] A. Caddemi, E. Cardillo, and G. Crupi, "Light activation of noise at microwave frequencies: a study on scaled GaAs HEMT's," *IET Circuits, Devices and Systems*, Vol. 12, Issue 3, pp. 242-248, May. 2018.
- [8] E. Cardillo, V. Di Mattia, G. Manfredi, P. Russo, A. De Leo, A. Caddemi, and G. Cerri, "An electromagnetic sensor prototype to assist visually impaired and blind people in autonomous walking," *IEEE Sensors Journal*, Vol. 18, Issue 6, pp. 2568-2576, Mar. 2018.
- [9] V. Đorđević, E. Cardillo, Z. Marinković, O. Pronić-Rančić, A. Caddemi, and V. Marković, "Wave Approach to Noise Modeling of Scaled On-Wafer GaAs HEMTs," *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, Oct. 2017.
- [10] E. Cardillo and A. Caddemi, "A novel approach for crosstalk minimization in FMCW radars," *Electronics Letters*, Vol. 53, Issue 20, pp. 1379-1381, Sept. 2017.
- [11] A. Caddemi and E. Cardillo, "Optical control of gain amplifiers at microwave frequencies," *Computing and Electromagnetics International Workshop (CEM)*, Barcelona, Spain, pp. 51-52, Jun. 2017.
- [12] A. Caddemi and E. Cardillo, "A study on dynamic threshold for the crosstalk reduction in frequency-modulated radars," *Computing and Electromagnetics International Workshop (CEM)*, Barcelona, Spain, pp. 29-30, Jun. 2017.
- [13] A. Caddemi, E. Cardillo, G. Salvo, and S. Patanè, "Microwave effects of UV light exposure of a GaN HEMT: Measurements and model extraction," *Microelectronics Reliability*, Vol. 65, pp. 310-317, Oct. 2016.

- [14] A. Caddemi and E. Cardillo, "A straight-line equation for the notch tailoring of a microwave extra wideband filter," *Journal of Electromagnetic Waves and Applications*, Vol. 30, Issue 16, Nov. 2016.
- [15] V. Di Mattia, A. Caddemi, E. Cardillo, G. Manfredi, A. De Leo, P. Russo, L. Scalise, and G. Cerri, "A Feasibility Study of a Compact Radar System for Autonomous Walking of Blind People," *2016 IEEE 2nd International Forum on Research and Technologies for Society and Industry Leveraging a better tomorrow (RTSI)*, Bologna, Italy Sept. 2016, 3 p.
- [16] A. Caddemi, E. Cardillo, and G. Crupi, "Comparative Analysis of Microwave Low-Noise Amplifiers under Laser Illumination," *Microwave and Optical Technology Letters*, Vol. 58, No. 10, pp. 2437-2443, Oct. 2016.
- [17] N. Boukortt, B. Hadri, S. Patanè, A. Caddemi, G. Crupi, and E. Cardillo, "Electrical characteristic of SOI TG n-FinFET," *Materials for Advanced Metallization (MAM)*, Leuven, Belgium, Mar. 2016.
- [18] A. Caddemi, E. Cardillo, and G. Crupi, "Microwave Noise Parameter Modeling of a GaAs HEMT under Optical Illumination," *Microwave and Optical Technology Letters*, Vol. 58, No. 1, pp. 151-154, Jan. 2016.
- [19] E. Cardillo and A. Caddemi, "Flexible CAD methodology for UWB filter with a tailored notch," *IEEE Mediterranean Microwave Symposium (MMS)*, Lecce, Italy, Dec. 2015.
- [20] N. Boukortt, A. Caddemi, E. Cardillo, G. Crupi, B. Hadri, and S. Patanè, "Inverse Modeling of an AlGaAs/GaAs HEMT from DC and Microwave Measurements Illumination," *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, Oct. 2015.
- [21] A. Caddemi, E. Cardillo, G. Crupi, and G. Salvo, "Performance Analysis of a Microwave Low-Noise Amplifier under Laser Illumination," *IEEE International Conference on Advanced Technologies, Systems and Services in Telecommunications (TELSIKS)*, Niš, Serbia, Oct. 2015.
- [22] A. Meazza, G. Sivverini, A. Colzani, M. Fumagalli, A. Traversa, and E. Cardillo, "A New Methodology to Estimate E-band pHEMT Linearity Optimum Load from Low Microwave Frequency Load Pull Measurements" *IEEE International Workshop on Integrated Nonlinear Microwave and Millimeter-wave Circuits (INMMiC)*, Taormina, Italy, 3 p., Oct. 2015.
- [23] A. Caddemi, E. Cardillo, and G. Tuccari, "Ultra Wide-Band HTS filter for new geodetic VLBI front-ends," *European VLBI Group for Geodesy and Astronomy (EVGA)*, Azores, Portugal, 3 p. May 2015.
- [24] D. Aloisio, A. Caddemi, E. Cardillo, "Amplificatore di potenza ibrido compatto in banda X per radar marittimi di nuova generazione" - *VI Convegno SEA-MED*, Messina, Italy, pp. 204 – 208, Jul. 2014.

Publications under review

- [25] A. Caddemi, E. Cardillo, and G. Crupi, "HEMT's sensitivity to optical radiation: Distinguishing aspects of the microwave noise performance", submitted for publication in *IET Circuits, Devices and Systems*, Nov. 2018.
- [26] A. Caddemi and E. Cardillo, "A Systematic Experimental Analysis of an Optical Sensing Low-Noise Amplifier," submitted for publication in *Microwave and Optical Technology Letters*, Dec. 2018.