

University of Roma Tre  
Curriculum Vitae (short) of Antonino Laudani

Antonino Laudani was born in Catania July 18, 1973.

In January 1999 he graduated in Electronic Engineering from the University of Catania, by vote of 110 to 110 cum laude, discussing a thesis entitled Finite Element Simulation of TWT multistage depressed collectors for space applications.

In February 2003 he obtained the title of PhD in Electronic Engineering from the University of Reggio Calabria, with a thesis entitled 'The stationary Vlasov equation in vacuum electronic devices: FEM procedures for the iterative solution and postprocessing'.

From September 2003 to February 2005 is the holder of a postdoctoral program in Electrical Engineering at the Faculty of Engineering, University of Catania. From March 2005 to June 2011 he worked as researcher benefitting of a research grant for the SSD ING-IND/31 Electrical Engineering, Department of Electrical Engineering, Electronics and Systems, University of Catania.

On 1 September 2011 he joined as a researcher fellow at the Faculty of Engineering of the University Roma Tre for the scientific field ING-IND/31 Electrical. His scientific work was conducted on the typical topics of electrical engineering and has focused mainly on aspects related to the study of methods for computing electromagnetic fields and their application in analysis and simulation of electromagnetic devices, as well as developing circuits and algorithms, also based on soft-computing techniques for the prediction and processing of signals and for the solution of inverse problems and optimization. Most of the research subjects were conducted as part of national research projects PRIN / FIRB or in collaboration with researchers at the European Space Agency and the National Institute of Geophysics and Volcanology, or under agreements with the groups research different companies (STMicroelectronics, Galileo Avionica, Selex Communications, etc..) to resolve issues of strategic interest for the industry.

Since 2001 he is member of the International Compumag Society (ICS) .Since 2009 he is member of IEEE society.

The most significant results of this work were presented at major international conferences in the sector such CEFC, COMPUMAG, ELECTROSOFT, IVEC, SCEE, CEM, OIPE, ISEF, etc., sponsored by the IEEE, and have appeared in qualified international journals (IEEE Transactions on Magnetics, IEEE Transactions on Electron Devices, Compel and others).

The scientific production of Antonino Laudani now includes more than 80 scientific publications in international distribution. He also worked as a reviewer for major journals in the field such as ' IEEE Trans. on Antennas and Propagation ', ' IEE Proc Microwaves, Antennas and Propagation ', ' IET Image Processing ', ' IEEE Trans. on Signal Processing ' and he has been member of the Editorial Board of CEFC 2010.

## Teaching

From 2005 to 2009 He carried out teaching at University of Catania and he took the course of Electrotecnics.

From 2009 He carried out teaching at University of Roma Tre and he took the following course:

- System, Circuits and electrical safety
- electrical systems and circuits
- Electrical safety

## Publications in international journals in the last 5 years

- 1 S. Coco, A. Laudani, F. Riganti Fulginei, A. Salvini (2012). Accurate design of Helmholtz coils for ELF Bioelectromagnetic interaction by means of Continuous FSO. INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS, vol. 39, p. 651-656, ISSN: 1383-5416, doi: 10.3233/JAE-2012-1524
- 2 F. Riganti Fulginei, A. Laudani, F. Benedetto, G. Albanese (2012). Automatic Aircraft Target Recognition by ISAR Image Processing based on Neural Classifier. INTERNATIONAL JOURNAL OF ADVANCED COMPUTER SCIENCE APPLICATIONS, vol. 3, p. 96-103, ISSN: 2156-5570
- 3 S. Coco, A. Laudani, G. Pulcini, F. Riganti Fulginei, A. Salvini (2012). Shape Optimization of Multistage Depressed Collectors by Parallel Evolutionary Algorithm. IEEE TRANSACTIONS ON MAGNETICS, vol. 48 , p. 435-438, ISSN: 0018-9464, doi: 10.1109/TMAG.2011.2174035
- 4 S. Coco, A. Laudani, F. Riganti Fulgieni, A. Salvini (2012). TEAM problem 22 approached by a hybrid artificial life method. COMPEL, vol. 31, p. 816-826 , ISSN: 0332-1649, doi: 10.1108/03321641211209726
- 5 S. Coco, A. Laudani, G. Pollicino, G. Pulcini, F. Riganti Fulginei, A. Salvini (2012). TWT magnetic focusing structure optimization by parallel evolutionary algorithm. COMPEL, vol. 31, p. 1338 - 1346, ISSN: 0332-1649, doi: 10.1108/03321641211246347
- 6 S. Coco, A. Laudani, E. Calà, (2010). A New Stochastic LLP Model for studying ELF Bioelectromagnetic Interaction, IEEE Transactions on Magnetics, vol. 46, No. 8, pp. 3253-3526.
- 7 S. Coco, A. Laudani, G. Pollicino, P. Tirrò. (2010). A new self-consistent 3D unbounded magnetic field FE computation for electron guns, IEEE Transactions on Magnetics, vol. 46, No. 8, pp. 3425-3428.
- 8 S. Coco, A. Laudani, G. Pollicino, P. Tirrò (2009). Finite Element Electromagnetic Analysis of TWT Slow-Wave Structures in Grid Environment, IEEE Transactions on Magnetics, vol. 45, pp. 1843-1846.

- 9 S. Coco, A. Laudani, G. Pollicino. (2009). GRID-Based Prediction of Electromagnetic Fields in Urban Environment, IEEE Transactions on Magnetics, vol. 45, pp. 1060-1063.
- 10 S. Coco, A. Laudani, F. Di Maggio, I. Pomona. (2008) Ka Band Phase Locked Loop Oscillator (PLL DRO) for Satellite EHF Band Receiver, Active and Passive Electronic Components, Hindawi Publishing Corporation, vol. 2008; p. 1-6, ISSN: 0882-7516.
- 11 S. Coco, A. Laudani, G. Pollicino. (2008). Distributed Computing Finite Element Electromagnetic Analysis of Traveling Wave Tubes, COMPEL: The International Journal for Computation and Mathematics in Electrical and Electronic Engineering. vol. 27; p. 1326-1334, ISSN: 0332-1649.
- 12 S. Coco, A. Laudani, F. Riganti Fulginei, A. Salvini. (2008). Quality Improvement of 3-D FE Mesh by a BCA Approach. COMPEL: The International Journal for Computation and Mathematics in Electrical and Electronic Engineering, vol. 27; pp. 1335-1342, ISSN: 0332-1649.
- 13 S. Coco, A. Laudani, F. Riganti Fulginei, A. Salvini. (2008). 3-D Finite Element Mesh Optimization based in a Bacterial Chemotaxis Algorithm. Studies in Applied Electromagnetics and Mechanics: Advanced Computer Techniques in Applied Electromagnetics, vol. 30, p. 425-430, IOS Press, ISBN/ISSN: 978-1-58603-895-3.