Curriculum Vitae
Maria Gabriella Cimoroni

Maria Gabriella Cimoroni received the M.S. degree in Mathematics in 1989 from the University of L'Aquila with score 110/110 cum laude. After graduation she attended the post-graduate Inter-University School of Perugia and the CNR Computational Mathematics School in Naples. Since 1994 she is Researcher in Numerical Analysis at University of L'Aquila where she teaches Numerical Analysis and Mathematics Complements.

Her research activities have been mostly devoted to new spline operators for approximation of functions, for numerical evaluation of Cauchy principal value integrals and for numerical solution of integro-differential equations. Her current research interests are new analytical and numerical methods for modulation algorithms applied to multilevel converters. She is author and co-author of papers published in international journals or in proceedings of international conferences.

In 2018, a paper presented in Japan at the 6th International Conference on Smart Grids (ICSG), which she co-authored, received the best paper award and she received the second prize awarded by the IEEE Journal of Emerging and Selected Topics in Power Electronics for a paper published there in 2023.

She is a reviewer for some international journals, between them IEEE Transactions on Industrial Electronics. Since 2018 she is component of Scientific Committees of AEIT- Automotive. In particular, in 2019, she has been component of Technical Committee of 111-th 2019 AEIT International Conference in Florence and co-organizer (publicity chair) of 5th International Symposium on Environment Friendly Energies and Application (EFEA 2018) in Rome. In 2016 she has been co-organizer (publication co-chair) of 42th Annual International Conference of the IEEE Industrial Electronics Society (IECON 2016 -IEEE-IES) in Florence.

She has been member of the Phd Committee on "Systems and methods for the management of electrical and thermal energy from renewable and assimilated sources and for sustainable building" of DISIM Department of University of L'Aquila from 2012 to 2013.

She has been a member of several judging Committees for the awarding of research grants and for the assignment of teaching activities.

Journal papers

[1] C. Buccella, M. G. Cimoroni, C. Cecati, A. O. Di Tommaso; S. Meo; C. Nevoloso; G. Schettino, Real-Time Lagrange-Polynomials Selective Harmonic Elimination for Unbalanced Five-Level Inverters, *IEEE Transactions on Industry Applications,* Vol. 60, n. 4*,* July/August 2024, p. 6409-6421.

[2] G. Schettino, C. Nevoloso, G. Scaglione, R. Miceli, C. Cecati, C. Buccella; M. G. Cimoroni, Novel Selective Harmonic Mitigation Algorithm for Seven-level Three-phase Cascaded H-Bridge Inverters, *International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM 2024),* 19-21 June 2024, Napoli, Italy.

[3] C. Buccella, M. G. Cimoroni, A. Ghasemian Sahebi, C. Cecati, R. Miceli, A. O. Di Tommaso, C. Nevoloso, G. Schettino, Recursive method for harmonic elimination problem in multilevel inverters, *International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM 2024),* 19-21 June 2024, Napoli, Italy.

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[10] G. Schettino; C. Nevoloso; R. Miceli; A. O. Di Tommaso; G. Scaglione; F. Viola; C. Buccella; M. G. Cimoroni, Experimental Evaluation of Dead-Time Impacts on the Efficiency and THD for a Three-Phase Five-Level Cascaded H-Bridge Inverter, *2022 IEEE 21st Mediterranean Electrotechnical Conference (MELECON),*14-16 June 2022, Palermo, Italy.

[11] C. Buccella; M.G. Cimoroni; C. Cecati; A. O. Di Tommaso; C. Nevoloso; G. Schettino; Santolo Meo, Investigation about selective harmonic elimination in unbalanced multilevel inverters, *2022 IEEE 21st Mediterranean Electrotechnical Conference (MELECON)*, 14-16 June 2022, Palermo, Italy.

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[16] C. Buccella; M. G. Cimoroni; C. Cecati; Linear-System-Based Selective Harmonic Elimination Solution for Multilevel Inverters, *2021 IEEE Energy Conversion Congress and Exposition* (ECCE), 10-14 October 2021, Vancouver, BC, Canada.

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