

Curriculum Vitae Giovanni Miano

NOTE BIOGRAFICHE, TITOLI, PERMANENZA ALL'ESTERO

Giovanni Miano è nato ad Ariano Irpino (Avellino) il 6 aprile 1957.

Ha conseguito il titolo di Dottore in Ingegneria Elettronica (110 su 110 e lode) presso l'Università degli Studi di Napoli nel 1983, con una tesi dal titolo "Stabilità per spostamenti verticali in un Tokamak con conduttori passivi di stabilizzazione resistivi".

Ha superato l'Esame di Stato per l'abilitazione alla professione di Ingegnere presso l'Università degli Studi di Napoli nel 1983.

Ha vinto il concorso per l'ammissione al corso di Dottorato di Ricerca in Ingegneria Elettrotecnica dell'Università degli Studi di Napoli, II° Ciclo, curriculum in "Ingegneria dei Plasmi e Fusione Controllata" - con diritto alla borsa di studio del Ministero della Pubblica Istruzione, nel 1985. Ha conseguito il titolo di Dottore di Ricerca in Ingegneria Elettrotecnica, discutendo una tesi dal titolo "Generazione di elevati campi elettrici e magnetici nei plasmi" nel 1989.

È stato Ricercatore Universitario in Elettrotecnica presso il Dipartimento di Ingegneria Elettrica dell'Università degli Studi Napoli dal 1989 al 1992 e Professore Associato di Teoria dei Circuiti presso la Facoltà di Ingegneria della stessa Università dal 1993 al 1999.

E' professore ordinario di Elettrotecnica presso la Facoltà di Ingegneria dell'Università degli Studi di Napoli Federico II dal 2000.

Ha iniziato la sua attività di ricerca nel 1984 presso la Divisione PS (Proton Synchrotron) del CERN di Ginevra (Svizzera) come Visiting Researcher, dove ha partecipato all'esperimento sulle lenti magnetiche a plasma per la focalizzazione degli antiprotoni dell'Antiproton Collector.

E' stato Associato all'INFN (Istituto Nazionale di Fisica Nucleare) – Sezione di Napoli.

E' stato Visiting Scientist presso i laboratori del GSI di Darmstadt (Germania) nel 1996, dove ha partecipato a ricerche sui fenomeni collettivi in fasci di particelle a elevate intensità di corrente.

E' stato Visiting Professor presso il Department of Electrical Engineering, University of Maryland – College Park (USA) nel 1999 dove ha partecipato ad attività di ricerca sul micromagnetismo e ha tenuto un corso sulla Modellistica Elettromagnetica di Linee di Trasmissione per studenti di dottorato. Attualmente collabora con il Department of Electrical and Computer Engineering della Boston University, Boston (USA).

ATTIVITÀ SCIENTIFICA

Ambiti in cui si è svolta l'attività di ricerca

Stabilità ed equilibrio di plasmi. Effetti collettivi in plasmi freddi e acceleratori di particelle. Elettromagnetismo computazionale. Modellizzazione di interconnessioni elettroniche veloci. Isteresi magnetica. Micromagnetismo.

Attualmente si occupa di elettrodinamica delle nanostrutture.

E' stato tutore o cotutore di una decina di dottorandi di ricerca.

Pubblicazioni

E' coautore di oltre 200 pubblicazioni scientifiche, come risulta dall'allegata lista delle pubblicazioni, di cui più di 100 sono articoli pubblicati su riviste scientifiche internazionali. E' coautore della monografia scientifica "*Transmission lines and lumped circuits*" pubblicata dall'Academic Press nel 2001.

Progetti

È stato responsabile della Ricerca dell'Unità Operativa di Napoli nel Progetto M.U.R.S.T. ex 40% "Metodi innovativi per lo studio di campi e circuiti", 1994-1995.

È stato responsabile della Ricerca dell'Unità Operativa di Napoli nel Progetto M.U.R.S.T. ex 40% "Modelli neurali e non lineari per il progetto di circuiti innovativi", 1996-1997.

E' stato responsabile dell'Unità Operativa di Napoli nel Progetto di Ricerca PRIN 1998 "Circuiti neurali e non lineari per il trattamento di segnali mono e multidimensionali".

E' stato responsabile dell'Unità Operativa di Napoli nel Progetto di Ricerca PRIN 2002 "Modelli di interconnessioni per il progetto di sistemi di comunicazione e elaborazione ad alta velocità.

E' stato responsabile dell'Unità Operativa di Napoli nel Progetto di Ricerca PRIN 2004 "Problematiche di compatibilità elettromagnetica e integrità di segnale nella progettazione di sistemi ad alte prestazioni" 2004-2005.

E' stato responsabile del Contratto di Ricerca con STMicroelectronics "Modellistica elettromagnetica di interconnessioni ad alta velocità", 2006-2008.

E' responsabile locale nel Progetto FP7-PEOPLE-2009-IRSES "CACOMEL—Nano-carbon based components and materials for high frequency electronics".

ATTIVITÀ DIDATTICA

Ha tenuto per diversi Corsi di Laurea della Facoltà di Ingegneria (Ingegneria delle Telecomunicazioni, Ingegneria Informatica, Ingegneria Elettrica, Ingegneria dell'Automazione, Ingegneria Elettronica, Ingegneria e Scienza dei Materiali) i corsi di Elettrotecnica, Principi di Ingegneria Elettrica, Introduzione ai Circuiti, Teoria dei Circuiti, Plasmi e Fusione Termonucleare Controllata, Modelli Numerici per i Campi

Attualmente tiene il corso di Principi di Ingegneria Elettrica per il Corso di Laurea in Ingegneria Biomedica, il corso di Modelli Numerici per i Campi e il corso di Plasmi e Fusione Termonucleare Controllata per le Lauree Magistrali in Ingegneria dell'Automazione, Ingegneria Elettronica, Ingegneria delle Telecomunicazioni e Ingegneria Elettrica.

E' stato relatore di diverse decine di tesi di laurea.

E' autore di quattro monografie didattiche: "Lezioni di Elettrotecnica", CUEN Napoli, ISBN 88 7146 435-4 Settembre 1998; "Esercizi di Elettrotecnica: Circuiti in regime stazionario", CUEN Napoli, Napoli ISBN 88 7146 433-8, Settembre 1998; "Esercizi di Elettrotecnica: Circuiti in regime sinusoidale", CUEN, Napoli ISBN 88 7146 434-6 Settembre 1998; "Circuiti", Springer Verlag.

Ha tenuto il corso di "Elettricità e magnetismo" per il Corso di Dottorato in Ingegneria Elettrica dal 2000 al 2003.

Ha tenuto nel 2001 il corso di "Modellistica delle linee di trasmissione", nel 2003 il corso di "Comportamento Dinamico di Circuiti Non Lineari", nel 2011 il corso di "Centocinquanta anni di elettromagnetismo: il passato prossimo futuro" per la Scuola Nazionale Dottorandi di Elettrotecnica "Ferdinando Gasparini" e nel ... il corso

ATTIVITÀ ISTITUZIONALI

E' membro del Collegio del Corso di Dottorato in Ingegneria Elettrica dell'Università degli studi di Napoli Federico II dal 1989.

E' membro della Giunta del Dipartimento di Ingegneria Elettrica dell'Università degli studi di Napoli Federico II dal 1996.

Dal 2000 al 2006 è stato Coordinatore del Corso di Dottorato in Ingegneria Elettrica e Coordinatore della Scuola di Dottorato in Ingegneria Industriale.

Dal 2000 al 2007 è stato rappresentante dell'Università degli Studi di Napoli Federico II nel Consiglio di Amministrazione del Consorzio NETTUNO (Network per l'Università Ovunque) e membro della Giunta esecutiva.

Dal 2000 al 2006 è stato membro del Consiglio Scientifico del Gruppo Nazionale di Coordinamento di Elettrotecnica come Responsabile dell'Unità di Ricerca di Napoli Federico II.

Dal 2003 al 2006 è stato membro della Giunta di Presidenza.

Dal 2006 al 2007 è stato Coordinatore del Corso di Dottorato in Biologia Computazionale e Bioinformatica.

Nel 2004 è stato nominato membro del CAR Area 09 per valutazione CIVR – VTR 2001-2003.

Dal 2006 al 2008 è stato Direttore del Dipartimento di Ingegneria Elettrica.

Dal 2006 al 2010 è membro della Giunta di Presidenza della Facoltà di Ingegneria e dal 2006 è membro del Consiglio di Presidenza della Facoltà di Ingegneria.

Dal 2006 è membro del Senato Accademico.

Dal 2008 è Coordinatore della Commissione Ricerca del Senato Accademico e Delegato del Rettore per il Dottorato di Ricerca.

E' coordinatore del Comitato di Ateneo per la VQR 2004-2010 e VQR 2011-2014.

E' membro del Consiglio di Amministrazione dell'Università degli Studi di Napoli Federico II.

Napoli 16 marzo 2016

F. to Prof. Giovanni Miano

LISTA DELLE PUBBLICAZIONI SCIENTIFICHE DI
Giovanni Miano

Books

1. **G. Miano**, A. Maffucci. *Transmission lines and lumped circuits*. **Academic Press**, San Diego, 2001.

Items in Encyclopedias

1. L. De Menna, **G. Miano**. "*Linear Circuit Elements*". **The Encyclopedia of Electrical and Electronics Engineering**, (Editor John G. Webster), John Wiley & Sons, Inc., March 1999.
2. L. De Menna, **G. Miano**. "*Network Equations*". **The Encyclopedia of Electrical and Electronics Engineering**, (Editor John G. Webster), John Wiley & Sons, Inc., March 1999.

International Journal Papers

1. F. Gnesotto, **G. Miano**, G. Rubinacci. "*Numerical Analysis of Time-Dependent Field Perturbations Due to Gaps and Holes in the Shell of a Reverse Field Pinch Devices*". **IEEE Transactions on Magnetics**, Vol.MAG-21, No.6, pp.2400-2403, (1985).
2. R. Albanese, R. Martone, **G. Miano**, G. Rubinacci. "*A T Formulation for 3D Finite Element Eddy Current Computation*". **IEEE Transactions on Magnetics**, Vol.MAG-21, No.6, pp.2299-2302, (1985).
3. U. de Angelis, L. De Menna, R. Fedele, G. Miano, C. Nappi, V.G. Vaccaro. "*A Microwave-Driven Beat Wave Accelerator for Scaled Experiments*". **IEEE Transactions on Plasma Science**, Vol.PS-15, No.2, pp.179-185, (1987).
4. B. Autin, E. Boggasch, L. De Menna, K. Frank, **G. Miano**, H.Riege. "*A Z-Pinch Plasma Lens for Focusing High-Energy Particles in an Accelerator*". **IEEE Transactions on Plasma Science**, Vol.PS-15, No.2, pp.226-237, (1987).
5. L. De Menna, **G. Miano**, G. Rubinacci. "*Volterra's Series Solutions of Free Boundary Plasma Equilibria*". **The Physics of Fluids**, Vol.30, No.2, pp.409-416, (1987).
6. U. de Angelis, R. Fedele, **G. Miano**, C. Nappi. "*Excitation of Large Amplitude Plasma Waves in a Plasma Filled Open Resonator*". **Plasma Physics and Controlled Fusion**, Vol.29, No.7, pp.789-806, (1987).
7. **G. Miano**. "*Dynamics of Nonlinearly Excited Plasma Waves*". **The Physics of Fluids**, Vol.31, No.4, pp.848-856, (1988).
8. G. Fabricatore, F. Gasparini, **G. Miano**. "*A One-Dimensional Solution of the Homogeneous Diffusion Equation*". **IEEE Transactions on Education**, Vol.32, No.4, pp.454-456, (1989).
9. **G. Miano**, U. de Angelis, R. Bingham. "*Saturation and Cross-Field Coupling of Beat Wave Driven 3-D Plasma Waves*". **Plasma Physics and Controlled Fusion**, Vol.31, No.9, pp.1381-1389, (1989).
10. R. Fedele, **G. Miano**, V.G. Vaccaro. "*The Plasma Undulator*". **Physica Scripta**, Vol.T30, 192-197, (1990).
11. G. Di Massa, R. Fedele, **G. Miano**, C. Nappi. "*A Beat Wave Experiment in an Open Resonator*". **Physica Scripta**, Vol.T30, 122-126, (1990).
12. **G. Miano**. "*Three Dimensional Analysis of Nonlinear Plasma Oscillations*". **Physica Scripta**, Vol.T30, 198-207, (1990).
13. R. Albanese, E. Coccoresse, R. Martone, **G. Miano**, G. Rubinacci. "*On the numerical solution of the nonlinear three-dimensional eddy current problem*". **IEEE Transactions on Magnetics**, Vol. MAG27, pp.3990-3995, (1991).
14. R. Albanese, E. Coccoresse, R. Martone, **G. Miano**, G. Rubinacci. "*Periodic Solutions of Nonlinear Eddy Current Problems in Three-Dimensional Geometries*". **IEEE Transactions on Magnetics**, Vol. MAG28, pp.1118-1121, (1992).
15. L. Corti, **G. Miano**, C. Visone. "*Coupling of a Nonlinear Diffusive Electromagnetic System to a Linear Electrical Circuit*". **IEEE Transactions on Magnetics**, Vol. MAG 28, pp.1307-1310, (1992).
16. R. Albanese, **G. Miano**, G. Rubinacci. "*Formulazioni agli elementi finiti per l'elettromagnetismo quasi stazionario*". **Alta Frequenza**, Vol.IV-N.5, pp.49-64, (1992).

17. M. de Magistris, **G. Miano**, L. Verolino, C. Visone, E. Zamparelli. "A Numerical Analysis of the Behaviour of the Galerkin Equations Relevant to Electromagnetic Wave Propagation in Nonlinear Media". **IEEE Transactions on Magnetics**, Vol. MAG30, 3196-3199 (1994).
18. S. Bobbio, M. de Magistris, G. Marrucci, **G. Miano**, C. Visone, E. Zamparelli. "A New Model of Scalar Magnetic Hysteresis". **IEEE Transactions on Magnetics**, Vol. MAG30, 3367-3390 (1994).
19. R. Albanese, R. Fresa, **G. Miano**, G. Rubinacci, L. Verolino. "Finite Element Solution of Nonlinear Maxwell Equations in the Time Domain". **COMPEL**, Vol.13-A, 257-263 (1994).
20. S. Bobbio, **G. Miano**, L. Verolino, C. Visone, E. Zamparelli. "Applications of a new model of scalar hysteresis to a series ferro-resonant circuit". **International Journal of Magnetic Materials**, 133, pp. 596-598, (1994).
21. L. De Menna, G. Di Massa, R. Fedele, G. Miano, V.G. Vaccaro, L. Verolino. "Generazione di Oscillazioni di Plasma Tramite Battimento di Onde Elettromagnetiche". **Alta Frequenza**, Vol. 6, pp.9-14, (1994).
22. L. De Menna, **G. Miano**. "Chaotic Dynamics in a Simple Electromagnetic System". **Il Nuovo Cimento-B**, Vol. 109B, pp. 911-916 (1994).
23. L. Corti, L. De Menna, **G. Miano**, L. Verolino. "Chaotic Dynamics in an Infinite-Dimensional Electromagnetic System". **IEEE Transactions on Circuits and Systems-I: Fundamental Theory and Applications**, Vol. 41, No. 11, pp. 730-736 (1994).
24. L. De Menna, **G. Miano**, L. Verolino. "A Short Note on Some Integrals Involving Bessel Functions". **Il Nuovo Cimento-B**, 109, pp.805-808, (1994).
25. **G. Miano**. "A Qualitative Analysis of the Behaviour of the Galerkin Equations Relevant to Non-linear Eddy Current Problems". **International Journal for Numerical Methods in Engineering**, Vol. 38, No. 4, pp. 631-647, February 1995, Norwich, Grait Britain.
26. G. Breglio, D. Cautiello, M. de Magistris, L. De Menna, **G. Miano**, C. Visone. "Magnetic Field Reconstruction with Optical Fiber Sensors in Plasma Lenses". **IEEE Transactions on Plasma Science**, Vol. 23 (3), pp. 381-387, (1995).
27. **G. Miano**, L. Verolino. "Some integrals involving Bessel functions". **Il Nuovo Cimento B**, Vol. 110, N. 4, 1995.
28. **G. Miano**, V.G. Vaccaro, L. Verolino. "A new method of solution of the Hallén's problem". **Journal of Mathematical Physics**, 36 (8), 4087-4099, (1995).
29. **G. Miano**, C. Serpico, L. Verolino, C. Visone. "Comparison of Different hysteresis Models in FE Analysis of Magnetic Field Diffusion". **IEEE Transactions on Magnetics**, Vol. MAG-31, N. 3, pp.1789-1792 (1995).
30. L. Corti, **G. Miano**, L. Verolino. "A new technique for simulating non linear loaded lossy lines". **IEEE Transactions on Magnetics** Vol. 32, pp.934-937, (1996).
31. **G. Miano**, V. G. Vaccaro, L. Verolino. "A new numerical treatment for Pocklington's integral equation". **IEEE Transactions on Magnetics** Vol. 32, pp.918-921, (1996).
32. **G. Miano**, C. Serpico, C. Visone. "A new model of static scalar hysteresis". **Journal of Magnetism and Magnetic Materials**, (1996).
33. **G. Miano**, C. Serpico, L. Verolino, F. Villone. "On numerical solution of Maxwell equations in nonlinear media". **IEEE Transactions on Magnetics** Vol. 32, pp.950-953, (1996).
34. **G. Miano**, V.G. Vaccaro, L. Verolino. "A new method to compute the longitudinal coupling impedance of a drift tube". **Il Nuovo Cimento** , Vol. 109-A, pp.99-110, (1996).
35. **G. Miano**, C. Serpico, C. Visone. "A new model of magnetic hysteresis based on stop hysterons: an application to the magnetic field diffusion". **IEEE Transactions on Magnetics** Vol. 32, pp.1132-1135, (1996).
36. G. Lupò, **G. Miano**, V.Tucci, Vitelli. "Field Distribution in Cable Terminations from a Quasi-static Approximation of the Maxwell Equations". **IEEE Transactions on Dielectrics and Electrical Insulation**, Vol.3, No. 3, pp. 399-409, (1996).

37. **G. Miano**, V.G. Vaccaro, L. Verolino. *A hybrid procedure to solve Hallén's problem*. **IEEE Transactions on Electromagnetic Compatibility**, Vol. 38, pp. 495-498, (1996).
38. **G. Miano**, L. Verolino, C. Visone. *Capacitance of a cylindrical system*. **Il Nuovo Cimento**, Vol. 111-B, pp.769-782, (1996).
39. M. de Magistris, L. De Menna, **G. Miano**, C. Serpico. *An Analytical Approach to Optical Properties of Plasma Lenses with Non Linear Magnetic Field*. **Fusion Engineering and Design**, (1996).
40. **G. Miano**, V.G. Vaccaro, L. Verolino. *Time domain analysis of a charged particle travelling along the axis of a circular waveguide*. **Il Nuovo Cimento**, Vol. 111-B, pp.659-664, (1996).
41. **G. Miano**, G. Panariello, V.G. Vaccaro, L. Verolino. *A new method to compute the capacitance of the circular patch resonator*. **COMPEL**, Vol. 15, pp.73-85, (1996).
42. L. Corti, **G. Miano**, L. Verolino. *Bifurcation and chaos in transmission lines*. **Electrical Engineering**, Vol. 79, pp.165-171, (1996).
43. **G. Miano**, V. Mocella, L. Verolino. *Electromagnetic wave dynamics in a nonlinear dielectric slab by the method of the characteristics*. **Electrical Engineering**, Vol. 80, pp.5-12, (1997).
44. **G. Miano**. *Uniqueness of Solution for Linear Transmission Lines with Nonlinear Terminal Resistors*. **IEEE Transactions on Circuits and Systems-I: Fundamental Theory and Applications**, Vol. 44, pp.569-582, July (1997).
45. L. Corti, A. Maffucci, **G. Miano**, L. Verolino. *Time-domain two-port representations of a lossy line*. **Electrical Engineering**, Vol. 80, pp.235-240, (1997).
46. **G. Miano**, G. Panariello, C. Serpico, L. Verolino. *Electromagnetic Waves in a Nonlinear Dispersive Slab*. **Applied Computational Electromagnetic Society Journal**, Vol. 12, pp.16-19, (1997).
47. S. Bobbio, **G. Miano**, C. Serpico, C. Visone. *Models of Magnetic Hysteresis Based on Play and Stop Hysterons*. **IEEE Transactions on Magnetics**, Vol. 33, pp. 4417-4426, (1997).
48. G. Rumolo, I. Hofmann, **G. Miano**, U. Oeftiger. *Comparison between theory and simulations for longitudinal instabilities of coasting beams*. **Nuclear Instruments and Methods in Physics Research A** **415**, pp. 411-416 (1998)
49. A. Maffucci, **G. Miano**. *On the Dynamic Equations of Linear Multiconductor Transmission Lines with Terminal Nonlinear Multi-port Resistors*. **IEEE Transactions on Circuits and Systems-I: Fundamental Theory and Applications**, Vol. 45, pp.812-829, agosto (1998).
50. **G. Miano**, G. Panariello, L. Verolino. *An improved method for the capacitance evaluation of a microstrip*. **Il Nuovo Cimento** **113B(2)**, febbraio 1998.
51. **G. Miano**, G. Panariello, F. Schettino, L. Verolino. *The Neumann series: a tool for the analysis of some microstrip structures*. **Annales des Télécommunications**, **53**, pp. 104-114, April 1998.
52. **G. Miano**, G. Panariello, F. Schettino, L. Verolino *Ring capacitance in microstrip* **Journal of Electrostatic**, **46**, pp. 49-57, February 1999.
53. A. Maffucci, **G. Miano**. *Irregular Terms in the Impulse Response of a Multiconductor Lossy Transmission Line*. **IEEE Trans. Circuits and Systems-I**, vol. 46, pp. 788-805, July 1999.
54. A. Maffucci, **G. Miano**. *On the uniqueness of the numerical solutions of nonlinearly loaded lossy transmission lines*. **International Journal Circuit Theory and Applications**, vol. 27, pp. 455-472, 1999.
55. D. Davino, **G. Miano**, G. Panariello, L. Verolino. *A method to compute the Longitudinal Coupling Impedance of an iris in a vacuum chamber* **Physical Review Special Topics - Accelerators and Beams**, **2**, 044401, 1999.
56. G. Rumolo, O. Boine-Frankenheim, I. Hofmann, **G. Miano**. *Theory and simulations of intense laser cooled coasting beams*. **Nuclear Instruments and Methods in Physics Research A**, August, 1999.
57. G. Rumolo, **G. Miano**, C. Serpico, I. Hofmann. *Fluid description of the longitudinal instability in high current coasting beams* **Physics of Plasmas**, **6**, 4349-4359, 1999.

58. A. Maffucci, **G. Miano**. "An Accurate Time-Domain Model of Transmission Lines with Frequency-Dependent Parameters". **International Journal Circuit Theory and Applications**, vol. 28, pp. 263-280, 2000.
59. C. Serpico, C. Visone, I.D. Mayergoyz, V. Basso, **G. Miano**. "Eddy current losses in ferromagnetic laminations". **Journal of Applied Physics**, Vol. 87, Issue 9, pp. 6923-6925 May 1, 2000.
60. A. Andreotti, U. De Martinis, A.Maffucci, **G.Miano**, L.Verolino. "A mixed frequency and time domain approach for accurate evaluation of the dynamics of lemp-excited lossy multiconductor power lines". **Electrical Engineering (Archiv fur Elektrotechnik)**, vol. 83, N. 3, pp.147-155, 2001, Berlino, Germania.
61. A. Maffucci, **G. Miano**. "Time-domain two-port representation of some nonuniform two-conductor transmission lines" **IEEE Transactions on Circuits and Systems Fundamental Theory an Applications**, Volume: 49 Issue:11, Nov 2002, Page(s): 1639 –1645.
62. A. Maffucci, **G. Miano**, F. Villone. "Full-wave transmission line theory". **IEEE Transactions on Magnetics**, vol. 39, pp.1593–1597, 2003.
63. M. d'Aquino, **G. Miano**, C. Serpico, W. Zamboni. "Deformations of polarizable fluids subject to stationary electromagnetic fields". **IEEE Transactions on Magnetics**, vol. 39, pp.1440–1443, 2003.
64. M. d'Aquino, **G. Miano**, C. Serpico, W. Zamboni, G. Coppola. *Forces in magnetic fluids subject to stationary magnetic fields*. **IEEE Transactions on Magnetics**, vol. 39, pp. 2657-2659, 2003.
65. W. Zamponi, G. Coppola, M. d'Aquino, **G. Miano**, C. Serpico. *A new approach to computations of forces in magnetic fluids*. **Journal of Magnetism and Magnetic Material**, vol. 272-276, pp. 657-658, 2004.
66. A. Maffucci, **G. Miano**, F. Villone. *An Enhanced Transmission Line Model for Conducting Wires*. **IEEE Transactions on Electromagnetic Compatibility**, Vol. 46, pp. 512-528, 2004.
67. M. D'Aquino, C. Serpico, **G. Miano**, I. D. Mayergoyz, G. Bertotti. *Numerical integration of Landau-Lifshitz-Gilbert equation based on the mid-point rule*. **Journal of Applied Physics**, **97**, 10E319, 2005.
68. M. D'Aquino, C. Serpico, **G. Miano**. *Geometrical integration of Landau-Lifshitz-Gilbert equation based on the mid-point rule*. **Journal of Computational Physics**. Volume: 209, Issue: 2, pp. 730-753, November 1, 2005.69
69. A. Maffucci, **G. Miano**, F. Villone. *An Enhanced Transmission Line Model for Conductors with arbitrary cross sections*. **IEEE Trans. Advanced Packaging**, Vol. **28**, pp. 174-188, May 2005.
70. **G. Miano**, F. Villone. A surface integral formulation of Maxwell equations for topologically complex conducting domains. **IEEE Transactions on Antennas and Propagation**,Vol. 53, no. 12, pp. 4001-4014 (2005).
71. **G. Miano**, F. Villone *An Integral Formulation for the Electrodynamics of Metallic Carbon Nanotubes Based on a Fluid Model*. **IEEE Transactions on Antennas and Propagation**,Vol. 54, n. 10, pp. 2713-2724 (2006).
72. I.D. Mayergoyz, Z. Zhang Z, **G. Miano**. Analysis of dynamics of excitation and dephasing of plasmon resonance modes in nanoparticles. **Physical Review Letters**, 98 (14): Art. No. 147401 APR 6 2007.
73. **G. Miano**, G. Rubinacci, A. Tamburino. *Numerical modelling of the interaction of nanoparticles with electromagnetic waves*. **The International Journal for Computation and Mathematics in Electrical and Electronic Engineering**; Volume: 26 Issue: 3; pp. 586 – 599, 2007.
74. **G. Miano**, F. Villone, W. Zamboni. *Analysis of plasmon oscillations in metallic nanoparticles*. **The International Journal for Computation and Mathematics in Electrical and Electronic Engineering**; Volume: 26 Issue: 3; pp 626 - 639, 2007.
75. A. Maffucci, **G. Miano**, F. Villone, W. Zamboni *Electromagnetic models for metallic carbon nanotube interconnects*. **The International Journal for Computation and Mathematics in Electrical and Electronic Engineering**; Volume: 26 Issue: 3; pp 571 - 585, 2007.
76. M. de Magistris, L. De Tommasi, A. Maffucci, **G. Miano**. *Low order identification of interconnects with the generalized method of characteristics*. **IEEE Transactions on Electromagnetic Compatibility**, Vol. 49, pp. 670-676, 2007.

77. M. D'Aquino, C. Serpico, **G. Miano**, G. Bertotti, I. D. Mayergoyz. *Magnetization normal oscillation modes in saturated ferromagnetic nanoparticles*. **Physica B: Condensed Matter**, Vol. 403, pp.242- 244, 2008.
78. A. M. Chiariello, A. Maffucci, G. Miano, F. Villone. *A Transmission-line Model for Full-wave Analysis of Mixed-mode Propagation*. **IEEE Transactions on Advanced Packaging**, Vol. 31, pp.275- 284, 2008.
79. A. Maffucci, **G. Miano**, F. Villone. *A transmission line model for metallic carbon nanotube interconnects*. **International Journal of Circuit and Theory and Applications**, Vol. 36, pp. 31-51, 2008.
80. A. G. Chiariello, A. Maffucci, **G. Miano**, F. Villone, and W. Zamboni. *High-frequency full-wave analysis of interconnects with inhomogeneous dielectrics through an enhanced transmission line model*. **Applied Computational Electromagnetics Society Journal**. Vol. 23, pp.31- 38, 2008.
81. **G. Miano**, G. Rubinacci, A. Tamburino, F. Villone. *Linearized Fluid Model for Plasmon Oscillations in Metallic Nanoparticles*. **IEEE Transactions on Magnetics**, Vol. 44, pp.822- 825, 2008.
82. A. Maffucci, **G. Miano**, F. Villone, W. Zamboni. *Analysis of Multi-Wall Carbon Nanotubes Using a Three-Dimensional Integral Formulation and a Fluid Model*. **IEEE Transactions on Magnetics**, Vol. 44, pp. 1614 - 1617, 2008.
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