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Pubblicazioni

BREVETTI (1)

1. D. de Ceglia, M. A. Vincenti, M. Scalora, M. G. Cappeddu, US Patent No. 8,993,874 "Photonic Bandgap Solar Cells" (2015)

CAPITOLI DI LIBRI (3)

1. M.A. Vincenti, D. de Ceglia, V. Roppo, M. Scalora, "Nonlinear Optical Interactions in Epsilon-Near-Zero Materials: Second and Third Harmonic Generation", in Nonlinear, Tunable and Active Metamaterials, Editors: I. V. Shadrivov, M. Lapine, Y.S. Kivshar, Springer (2015)
2. M.A. Vincenti, D. de Ceglia, "Effective medium theories", in Fundamentals and Applications of Nanophotonics, Editor: Joseph W. Haus, Elsevier (2016)
3. D. de Ceglia, M.A. Vincenti, "Plasmonics", in Fundamentals and Applications of Nanophotonics, Editor: Joseph W. Haus, Elsevier (2016)

ARTICOLI IN RIVISTE INTERNAZIONALI PEER REVIEW (70)

1. H. Chen, V. Corboliou, A. S. Solntsev, D.-Y. Choi, M. A. Vincenti, D. de Ceglia, C. De Angelis, Y. Lu, and D. N. Neshev, "Enhanced second harmonic generation from two-dimensional $MoSe_2$ on a silicon waveguide," Light: Science & Applications 6, e17060 (2017)
2. M. A. Vincenti, D. de Ceglia, C. De Angelis, and M. Scalora, "Surface-plasmon excitation of second-harmonic light: emission and absorption," J. Opt. Soc. Am. B 34, 633-641 (2017)
3. D. de Ceglia, M. A. Vincenti, N. Akozbek, M. J. Bloemer, M. Scalora, "Nested plasmonic resonances: extraordinary enhancement of linear and nonlinear interactions," Opt. Express 25, 3980 (2017)

4. D. de Ceglia, M. A. Vincenti, M. Scalora, "On the origin of third harmonic light from hybrid metal-dielectric nanoantennas," J. Opt. 18, 11 115002 (2016)
5. M. Grande, G. V. Bianco, M. A. Vincenti, D. de Ceglia, P. Capezzuto, V. Petruzzelli, M. Scalora, G. Bruno, and A. D'Orazio, "Optically transparent microwave screens based on engineered graphene layers," Opt. Express 24, 22788 (2016)
6. S. Campione, I. Kim, D. de Ceglia, G. A. Keeler, and T. S. Luk, "Experimental verification of epsilon-near-zero plasmon polariton modes in degenerately doped semiconductor nanolayers," Opt. Express 24, 18782 (2016)
7. M. A. Vincenti, D. de Ceglia, M. Scalora, "Anomalous nonlinear absorption in epsilon-near-zero materials: Optical limiting and all-optical control", Optics Letters 41, 3611 (2016)
8. D. de Ceglia, M. A. Vincenti, M. Grande, G. V. Bianco, G. Bruno, A. D'Orazio, M. Scalora, "Tuning infrared guided-mode resonances with graphene", J. Opt. Soc. Am. B 33, 426 (2016)
9. M. Grande, G. V. Bianco, M. A. Vincenti, D. de Ceglia, P. Capezzuto, M. Scalora, A. D'Orazio, G. Bruno, '"Optically transparent microwave polarizer based on quasi-metallic graphene", Scientific Reports 5, 17083 (2015)
10. M. Scalora, M. A. Vincenti, D. de Ceglia, C. M. Cojocaru, M. Grande, J. W. Haus, "Nonlinear Duffing oscillator model for third harmonic generation", J. Opt. Soc. Am. B 10, 2129 (2015)
11. M. Grande, M. A. Vincenti, T. Stomeo, G. V. Bianco, D. de Ceglia, N. Aközbek, V. Petruzzelli, G. Bruno, M. De Vittorio, M. Scalora, and A. D'Orazio," Graphene-based perfect optical absorbers harnessing guided mode resonances", Opt. Express 23, 21032 (2015)
12. T. S. Luk, D. de Ceglia, S. Liu, G. A. Keeler, R. P. Prasankumar, M. A. Vincenti, M. Scalora, M. B. Sinclair and S. Campione, "Enhanced third harmonic generation from the epsilon-near-zero modes of ultrathin films," App. Phys. Letters 106, 151103 (2015)
13. D. de Ceglia, M. A. Vincenti, C. De Angelis, A. Locatelli, J.W. Haus, M. Scalora, "Role of antenna modes and field enhancement in second harmonic generation from dipole nanoantennas," Opt. Express 23, 1715 (2015)
14. M. Grande, M. A. Vincenti, T. Stomeo, G. V. Bianco, D. de Ceglia, N. Aközbek, V. Petruzzelli, G. Bruno, M. De Vittorio, M. Scalora, and A. D'Orazio,"Graphene-based absorber exploiting guided mode resonances in one-dimensional gratings," Opt. Express 22, 31511 (2014)
15. S. Campione, D. de Ceglia, C. Guclu, M. A. Vincenti, M. Scalora, and F. Capolino, "Fano collective resonance as complex mode in a two-dimensional planar metasurface of plasmonic nanoparticles," Applied Phys. Letters 105, 191107 (2014)
16. M. Scalora, M. A. Vincenti, D. de Ceglia, J. W. Haus, "Nonlocal and quantum-tunneling contributions to harmonic generation in nanostructures: Electron-cloud-screening effects," Phys. Rev. A 90, 013831 (2014)
17. M. A. Vincenti, D. de Ceglia, M. Grande, A. D'Orazio, and M. Scalora, "Third-harmonic generation in one-dimensional photonic crystal with graphene-based defect," Phys. Rev. B 89, 165139 (2014)

18. Y. Wu, N. Dong, S. Fu, J. D. Fowlkes , L. Kondic , M. A. Vincenti , D. de Ceglia , P. D. Rack, "Directed Liquid Phase Assembly of Highly Ordered Metallic Nanoparticle Arrays", ACS Advanced Materials and Interfaces 6, 5835 (2014)

19. J. W. Haus, D. de Ceglia, M. Vincenti, M. Scalora, "Nonlinear quantum tunneling effects in nanoplasmonic environments: two-photon absorption and harmonic generation", Journal of Optical Society of America B, 31 A13 (2014)

20. D. de Ceglia, M. A. Vincenti, S. Campione, F. Capolino, J. W. Haus, M. Scalora, "Second-harmonic double-resonance cones in dispersive hyperbolic metamaterials", Physical Review B 89 075123 (2014)

21. J. W. Haus, D. de Ceglia, M. Vincenti, M. Scalora, "Quantum conductivity for metal–insulator–metal nanostructures", Journal of Optical Society of America B, 31 259-269 (2014)

22. M. A. Vincenti, D. de Ceglia, M. Scalora, "Nonlinear Dynamics in Low Permittivity Media: The Impact of Losses", Optics Express 21, 29949-29954 (2013)

23. M. A. Vincenti, D. de Ceglia, J. W. Haus, M. Scalora, "Harmonic generation in multiresonant plasma films", Physical Review A 88, 043812 (2013)

24. M. Scalora, M. A. Vincenti, D. de Ceglia, M. Grande, J. W. Haus, "Spontaneous and stimulated Raman scattering near metal nanostructures in the ultrafast, high-intensity regime", Journal of Optical Society of America B 30, 2634-2639 (2013)

25. M. A. Vincenti, D. de Ceglia, M. Grande, A. D'Orazio, and M. Scalora, "Nonlinear control of absorption in one-dimensional photonic crystal with graphene-based defect," Optics Letters 38, 3550-3553 (2013)

26. M. Grande, T. Stomeo, G. V. Bianco, M. Vincenti, D. de Ceglia, V. Petruzzelli, G. Bruno, M. De Vittorio, M. Scalora, A. D'Orazio, "Fabrication of doubly resonant plasmonic nanopatch arrays on graphene", Applied Physics Letters 102, 231111 (2013)

27. M. A. Vincenti, D. de Ceglia, M. Grande, A. D'Orazio, M. Scalora, "Tailoring absorption in metal gratings with resonant ultrathin bridges", Plasmonics DOI 10.1007/s11468-013-9558-2 (2013)

28. D. de Ceglia, S. Campione, M. A. Vincenti, F. Capolino, M. Scalora, "Low-damping epsilon-near-zero slabs: Nonlinear and nonlocal optical properties", Physical Review B 87 155140 (2013)

29. M. Grande, G. V. Bianco, M. A. Vincenti, D. de Ceglia, V. Petruzzelli, M. Scalora, G. Bruno, A. D'Orazio, M. De Vittorio, T. Stomeo, "2D Plasmonic gold nano-patches for linear and nonlinear applications", Microelectronic Engineering 111, 234-237 (2013)

30. S. Campione, D. de Ceglia, M. A. Vincenti, M. Scalora, F. Capolino, "Electric field enhancement in epsilon-near-zero slabs under TM-polarized oblique incidence", Physical Review B 87 035120 (2013)

31. M. A. Vincenti, M. Grande, G. V. Bianco, D de Ceglia, T. Stomeo, M. De Vittorio, V. Petruzzelli, G. Bruno, A. D'Orazio, M. Scalora, "Surface-Enhanced Raman Scattering from finite arrays of gold nano-patches," Journal of Applied Physics 113, 013103 (2013)

32. M. A. Vincenti, S. Campione, D. de Ceglia, F. Capolino, M. Scalora, "Gain assisted harmonic generation in near-zero permittivity metamaterials made of plasmonic nanoshells, " New Journal of Physics 14, 103016 (2012)

33. M. Grande, G. V. Bianco, M. A. Vincenti, T. Stomeo, D. de Ceglia, M. De Vittorio, V. Petruzzelli, M. Scalora, G. Bruno, A. D'Orazio, "Experimental Surface-Enhanced Raman Scattering response of two-dimensional finite arrays of gold nanopatches," Applied Physics Letters 101, 111606-4 (2012)

34. V. Roppo, M. A. Vincenti, D. de Ceglia, M. Scalora, "Deep-subwavelength waveguiding via inhomogeneous second-harmonic generation," Optics Letters 37, 3093-3095 (2012)

35. M. Scalora, M. A. Vincenti, D. de Ceglia, M. Grande, J. W. Haus, "Raman scattering near metal nanostructures," Journal of Optical Society of America B 29, 2035-2045 (2012)

36. N. Akozbek, N. Mattiucci, D. de Ceglia, R. Trimm, A. Alù, G. D'Aguanno, M. A. Vincenti, M. Scalora, and M. J. Bloemer, "Experimental demonstration of plasmonic Brewster angle extraordinary transmission through extreme subwavelength slit arrays in the microwave", Physical Review B 85, 205430 (2012)

37. M. Scalora, M. A. Vincenti, D. de Ceglia, N. Akozbek, V. Roppo, M. J. Bloemer, J. H. Haus, "Dynamical Model of Optical Harmonic Generation in Centrosymmetric Semiconductors," Physical Review A 85, 053809 (2012)

38. M. A. Vincenti, M. Grande, D. de Ceglia, T. Stomeo, V. Petruzzelli, M. De Vittorio, M. Scalora, and A. D'Orazio, "Color control through plasmonic metal grating," Applied Physics Letters 100, 201107 (2012)

39. D. de Ceglia, M.A. Vincenti and M. Scalora, "Wideband Plasmonic Beam Steering in Metal Gratings", Optics Letters 37, 271 (2012)

40. M.A. Vincenti, D. de Ceglia, A. Ciattoni and M. Scalora, "Singularity-driven second and third harmonic generation at epsilon -near-zero crossing points," Physical Review A 84, 063826 (2011)

41. M. A. Vincenti, D. de Ceglia and M. Scalora, "Extraordinary transmission and nonlinear response of subwavelength slits in semiconductors," Optics Letters 36, 4674 (2011)

42. V. Roppo, N. Akozbek, D. de Ceglia, M. A. Vincenti, and M. Scalora, "Harmonic generation and energy transport in dielectric and semiconductors at visible and UV wavelengths: the case of GaP," Journal of Optical Society of America B 28, 2888 (2011)

43. M. Grande, R. Marani, F. Portincasa, G. Morea, V. Petruzzelli, A. D'Orazio, V. Marrocco, D. de Ceglia, M.A. Vincenti, "Asymmetric plasmonic grating for optical sensing of thin layers of organic materials, " Sensors and Actuators B: Chemical 160, 1056 (2011)

44. M. Grande, M. A. Vincenti, T. Stomeo, G. Morea, R. Marani, V. Marrocco, V. Petruzzelli, A. D'Orazio, R. Cingolani, M. De Vittorio, D. de Ceglia, and M. Scalora, "Experimental demonstration of a novel bio sensing platform via plasmonic band gap formation in gold nano patch arrays," Opt. Express 19, 21385-21395 (2011). Paper selected also for Virtual Journal for Biomedical Optics (2011)

45. D. de Ceglia, M. A. Vincenti, M. Scalora, N. Akozbek, and M. J. Bloemer, "Plasmonic band edge effects on the transmission properties of metal gratings, " AIP Advances 1, 032151 (2011)

46. R. Marani, M. Grande, V. Marrocco, A. D'Orazio, V. Petruzzelli, M. A. Vincenti, and D. de Ceglia, "Plasmonic Band Gap formation in two-dimensional periodic arrangements of gold patches with sub-wavelength gaps," Optics Letters 36, 903 (2011)

47. G. D'Aguanno, D. de Ceglia, N. Mattiucci, M. J. Bloemer, "All-optical switching at the Fano resonances in subwavelength gratings with very narrow slits," Optics Letter 36, 1984 (2011)

48. D. de Ceglia, G. D'Aguanno, N. Mattiucci, M. A. Vincenti, and M. Scalora, "Enhanced Second Harmonic generation from resonant GaAs gratings," Optics Letters 36, 704 (2011)

49. M. A. Vincenti, D. de Ceglia, V. Roppo, and M. Scalora, "Harmonic generation in metallic, GaAs-filled nanocavities in the enhanced transmission regime at visible and UV wavelengths," Optics Express 19, 2064 (2011)

50. G. D'Aguanno, N. Mattiucci, M. J. Bloemer, M. A. Vincenti, D. de Ceglia, A. Alù, "Transmission Resonances in Plasmonic Metallic Gratings," Journal of Optical Society of America B 28, 253 (2011)

51. M. Scalora, M. A. Vincenti, D. de Ceglia, V. Roppo, M. Centini, N. Akozbek, M. J. Bloemer, "Second and Third Harmonic Generation in Metal-Based Nanostructures," Physical Review A 82, 043828 (2010)

52. M. A. Vincenti, D. de Ceglia, M. Buncick, N. Akozbek, M. J. Bloemer, and M. Scalora, "Extraordinary transmission in the ultraviolet range from subwavelength slits on semiconductors," Journal of Applied Physics 107, 053101 (2010)

53. M. A. Vincenti, D. de Ceglia, V. Rondinone, A. Ladisa, A. D'Orazio, M. J. Bloemer, M. Scalora, "Loss compensation in Metal-Dielectric structures in negative refraction and super-resolving regimes," Physical Review A 80, 053807 (2009)

54. M.A. Vincenti, S. Trevisi, M. De Sario, V. Petruzzelli, A. D'Orazio, F. Prudenzano, N. Cioffi, D. de Ceglia, M. Scalora, "Theoretical Analysis of a Novel Palladium-Based Metallo-Dielectric Photonic Band Gap Structure for Applications to H_2 sensors," Journal of Applied Physics, 103 (2008)

55. D. de Ceglia, M. A. Vincenti, M. G. Cappeddu, M. Centini, N. Akozbek, A. D'Orazio, J.W. Haus, M. J. Bloemer, M Scalora, "Tailoring metallodielectric structures for superresolution and superguiding applications in the visible and near-ir ranges," Physical Review A 77, 033848 (2008)

56. V. Roppo, M. Centini, D. de Ceglia, M.A Vincenti, J.W Haus, N Akozbek, M.J. Bloemer, M Scalora, "Anomalous Momentum States, Non Specular Reflections, and negative-refraction of phase-locked, second-harmonic pulses," Metamaterials, 2 (2008)

57. M.C. Larciprete, A. Belardini, M.G. Cappeddu, D. de Ceglia, M. Centini, E. Fazio, C. Sibilia, M.J. Bloemer, and M. Scalora, "Second-harmonic generation from metallodielectric multilayer photonic-band-gap structures," Physical Review A, 77 (2008)

58. M.J. Bloemer, G. D'Aguanno, M. Scalora, N. Mattiucci, and D. de Ceglia, "Energy considerations for a superlens based on metal/dielectric multilayers," Optics Express 16, 19342 (2008)

59. D. de Ceglia, A. D'Orazio, M. De Sario, V. Petruzzelli, F. Prudenzano, M. Centini, M. G. Cappeddu, M. J. Bloemer, and M. Scalora, "Enhancement and inhibition of second-harmonic generation and absorption in a negative index cavity," Optics Letters 32, 265 (2007)

60. M. Scalora, G. D'Aguanno, N. Mattiucci, M. J. Bloemer, D. de Ceglia, M. Centini, A. Mandatori, C. Sibilia, N. Akozbek, M. G. Cappeddu, M. Fowler, and J. W. Haus, "Negative refraction and sub-wavelength focusing in the visible range using transparent metallo-dielectric stacks," Opt. Express 15, 508 (2007)

61. D. Antonucci, D. de Ceglia, A. D'Orazio, M. De Sario, V. Marrocco, V. Petruzzelli, F. Prudenzano, "Enhancement of the SHG efficiency in a doubly-resonant-2D-photonic crystal microcavity," Optical and Quantum Electronics 39, 353 (2007)

62. D. Antonucci, D. de Ceglia, A. D'Orazio, M. De Sario, V. Marrocco, V. Petruzzelli, F. Prudenzano, "A doubly-resonant photonic-crystal microcavity for second-harmonic generation," Fiber and Integrated Optics 26, 271 (2007)

63. M.A. Vincenti, A. D'Orazio, M. De Sario, V. Petruzzelli, F. Prudenzano, D. de Ceglia, M. Scalora, "Fabry-Pérot microcavity sensor for H_2-breath-test analysis," Journal of Applied Physics 102, 074501 (2007)

64. V. Roppo, M. Centini, C. Sibilia, M. Bertolotti, D. de Ceglia, M. Scalora, M.J. Bloemer, J. Haus, O. Kosareva, V.P. Kandidov, "Role of phase matching in pulsed second-harmonic generation: Walk-off and phase-locked twin pulses in negative index media," Physical Review A 76, 033829 (2007)

65. M. Scalora, G. D'Aguanno, M.J. Bloemer, M. Centini, D. de Ceglia, N. Mattiucci, Yu.S. Kivshar, "Dynamics of short pulses and phase matched second harmonic generation in negative index materials," Optics Express 14, 4746 (2006)

66. D. de Ceglia, M. De Sario, A. D'Orazio, V. Petruzzelli, F. Prudenzano, M. Scalora, M.A. Vincenti, "Wide band optical field concentrator for low-index core propagation," Journal of the European Optical Society – Rapid Publications 1, 06023 (2006)

67. M. Scalora, D. de Ceglia, G. D'Aguanno, N. Mattiucci, N. Akozbek, M. Centini, M.J. Bloemer, "Gap Solitons in a Nonlinear Quadratic Negative Index Cavity," Physical Review E 75, 066606 (2007)

68. A. D'Orazio, D. de Ceglia, M. De Sario, F. Prudenzano, M.J. Bloemer, M. Scalora, "Analysis of second harmonic generation in photonic-crystal-assisted waveguides," Journal of Applied Physics 100, 043110 (2006)

69. T. Stomeo, R. Bergamo, R. Cingolani, M. De Vittorio, A. D'Orazio, D. de Ceglia, V. Marrocco, "Silica glass bend waveguide assisted by two-dimensional photonic crystals", Optical and Quantum Electronics 37, 229 (2005)

70. A. D'Orazio, D. de Ceglia, M. De Sario, V. Petruzzelli, F. Prudenzano, "FDTD analysis of second harmonic generation in a quasi-one dimensional photonic band gap waveguide", Recent Research Developments in Optics, Vol 5 (2006)

ARTICOLI IN ATTI DI CONFERENZE INTERNAZIONALI PEER REVIEW (27)

1. M. A. Vincenti, D. de Ceglia, and M. Scalora, "Absorption of harmonic light in plasmonic nanostructures", Proceedings of SPIE Optics and Photonics - Paper 9921-2B, San Diego, CA August 28 - September 1 2016.

2. D. de Ceglia, M. A. Vincenti, M. Grande, G. V. Bianco, G. Bruno, A. D'Orazio, and M. Scalora, "Tuning Fano resonances of graphene-based gratings", Proceedings of SPIE Optics and Photonics - Paper 9921-2Y, San Diego, CA August 28 - September 1 2016
3. M. Grande, G. V. Bianco, M. A. Vincenti, D. de Ceglia, P. Capezzuto, V. Petruzzelli, M. Scalora, G. Bruno, A. D'Orazio, "Graphene-based devices: a platform for high frequency applications?", ICTON2016, July 10-14, Trento (Italy) 2016.
4. M. Grande, M. A. Vincenti, T. Stomeo, G. V. Bianco, D. de Ceglia, G. Magno, V. Petruzzelli, G. Bruno, M. De Vittorio, M. Scalora, and A. D'Orazio, "Graphene-Based Photonic Nanostructures for Linear and Nonlinear Devices," Proceedings of the International Conference on Transparent Optical Networks, Graz - Austria, July 6-10, We.B5.4 (2014). [INVITED PAPER]
5. M. Grande, M. A. Vincenti, T. Stomeo, G. V. Bianco, D. de Ceglia, V. Petruzzelli, G. Bruno, M. De Vittorio, M. Scalora and A. D'Orazio, "Absorption and losses in one-dimensional photonic crystal perfect absorber incorporating a monolayer graphene," Proceedings of the Third Mediterranean Photonics Conference, Trani - Italy, May 7-9 (2014)
6. J.W. Haus, D. de Ceglia, M.A. Vincenti, M. Scalora, "A quantum tunneling theory for nanophotonics," SPIE Photonics West - Paper 89941Q-10, San Francisco, CA February 1-6 (2014)
7. M. A. Vincenti, D. de Ceglia, J. W. Haus, M. Scalora, "Efficient harmonic generation in double-near-zero-permittivity slabs," SPIE Photonics West - Paper 89941U-6, San Francisco, CA February 1-6 (2014)
8. M. Grande, M. A. Vincenti, T. Stomeo, G. V. Bianco, D. de Ceglia, G. Magno, V. Petruzzelli, G. Bruno, M. De Vittorio, M. Scalora and A. D'Orazio, "Graphene Assisted Nanostructures," Proceedings of the International Conference on Transparent Optical Networks, Cartagena - Spain June 23 – 27, We.B5.2 (2013) [INVITED PAPER]
9. J. W. Haus, L. Li, N. Katte, C. Deng, M. Scalora, D. de Ceglia and M. A. Vincenti, "Nanowire Metal-Insulator-Metal Plasmonic Devices," SPIE International Conference on Photonics Solutions 2013, Paper 8883-88303, Pattaya City – Thailand, May 26-28 (2013) [INVITED PAPER]
10. T. Stomeo, M. Grande, G. V. Bianco, M. A. Vincenti, D. de Ceglia, V. Petruzzelli, M. Scalora, G. Bruno, A. D'Orazio, M. De Vittorio, "2D plasmonic gold nano-patches for linear and nonlinear applications," Proceeding of 38th International Conference in Micro and Nano Engineering, Toulose – France, 0343 (2012), also published in Microelectronic Engineering 111, 234-237 (2013)
11. S. Campione, M. A. Vincenti, D. de Ceglia, M. Scalora, F. Capolino, "Field enhancement and harmonic generation in ε-near-zero substrates under oblique TM-polarized illumination," Proceedings Metamaterials 2012, San Petersburg - Russia, (2012)
12. M. Grande, M. A. Vincenti, G. V. Bianco, T. Stomeo, D. de Ceglia, M. De Vittorio, V. Petruzzelli, G. Bruno, M. Scalora, A. D'Orazio, "Nonlinear response of 2D plasmonic gold patches for SERS applications," Proceedings of SPIE Optics and Photonics in press (2012)
13. M. A. Vincenti, D. de Ceglia, M. Scalora, "Plasmonic-grating-assisted absorption enhancement in thin-film semiconductors," Proc. SPIE 8471, Next Generation (Nano) Photonic and Cell Technologies for Solar Energy Conversion III, 84710U (2012)

14. M. A. Vincenti, M. Grande, D. de Ceglia, T. Stomeo, M. De Vittorio, V. Petruzzelli, A. D'Orazio, M. Scalora, "Experimental demonstration of plasmonic-grating-assisted optical biosensor," Proceedings of SPIE Optics and Photonics, San Diego USA (2012)

15. M. Grande, F. Dioguardi, R. Marani, A. D'Orazio, T. Stomeo, M. De Vittorio, G. V. Bianco, G. Bruno, M.A. Vincenti, D. de Ceglia, M. Scalora, "Optical properties of ordered plasmonic nanostructures in linear and nonlinear regimes," Proceedings of the International Conference on Transparent Optical Networks, Coventry - UK July 2 – 5, Mo.C5.4 (2012) [INVITED PAPER]

16. M. Grande, M.A. Vincenti, T. Stomeo, G. Morea, R. Marani, V. Marrocco, V. Petruzzelli, A. D'Orazio, M. De Vittorio, D. de Ceglia, and M. Scalora, "Novel plasmonic bio-sensing system based on two-dimensional gold patch arrays for linear and nonlinear regimes," 4th International Conference on Smart Materials, Structures and Systems, Montecatini Terme - Italy, 12-14 Giugno, (2012), also published on Advances in Science and Technology, vol. 81, pp. 15-19, (2013)

17. M. A. Vincenti, D. de Ceglia, M. Scalora, "Second and third harmonic generation at UV and soft x-ray wavelengths from semiconductor gratings," Proceedings of SPIE Optics and Photonics 8093, 80932-C (2011)

18. D. de Ceglia, G. D'Aguanno, N. Mattiucci, M. A. Vincenti, M. J. Bloemer, M. Scalora, "Enhanced nonlinear optics in resonant GaAs gratings: harmonic generation and optical bistability," Proceedings of SPIE Optics and Photonics 8093, 80932-D (2011)

19. V. Marrocco, R. Marani, G. Morea, M. Grande, V. Petruzzelli, A. D'Orazio, M.A. Vincenti, D. de Ceglia, "Anomalous Plasmonic Band Gap Formation in Two-dimensional Slit Arrays with Different Periods," Proceedings of the International Conference on Transparent Optical Networks, Stockolm - Sweden June 26 – 30, Mo.B2.4 (2011)

20. M. A. Vincenti, D. de Ceglia, M. Scalora, R. Marani, V. Marrocco, M. Grande, G. Morea, and A. D'Orazio, "Enhancement and Suppression of Transmission in 3-D Nanoslits Arrays with 1- and 2-D Periodicities," Proceedings of SPIE 7946, 794625-1 (2011)

21. M. A. Vincenti, D. de Ceglia, N. Akozbek, and M. Scalora, "Linear and nonlinear resonant effects in metallic arrays of sub-wavelength channels filled with GaAs," Proceedings of SPIE 7941, 79410Z (2011)

22. M. J. Bloemer, D. de Ceglia, M. A. Vincenti, M. Scalora, N. Akozbek, "Enhanced and suppressed transmission through metal gratings at the plasmonic band edges," Proceedings of SPIE Optics and Photonics 8096, 80963-A (2011)

23. M.A. Vincenti, M. De Sario, V. Petruzzelli, A. D'Orazio, F. Prudenzano, D. de Ceglia, N. Akozbek., M.J. Bloemer, P. Ashley, M. Scalora, "Enhanced transmission and second harmonic generation from subwavelength slits on metal substrates," in Metamaterials III, Proceedings of SPIE 6987 (2008)

24. M.A. Vincenti, D. de Ceglia, M. De Sario, V. Marrocco, V. Petruzzelli, F. Prudenzano, M. Scalora, A. D'Orazio, "Surface Plasmon Generation in a Subwavelength Slit in metal: a Palladium-Based H_2 Leak Detection Sensor," Proceedings of ECIO 2008, paper ThP18 (2008)

25. D. de Ceglia, A. D'Orazio, M. De Sario, V. Petruzzelli, M.A. Vincenti, F. Prudenzano, M.J. Bloemer, M. Scalora, "Photonic Crystal Assisted Polymeric Optical Field Concentrator," Proceedings of ICTON, (2007) [INVITED PAPER]
26. M.A. Vincenti, S. Trevisi, D. de Ceglia, N. Cioffi, M. Scalora, M. De Sario, V. Petruzzelli, F. Prudenzano, A. D'Orazio, "Metallo-Dielectric Multilayer Sensor for Hydrogen Detection in Exhaled Breath," Proceedings of ECIO 2007, paper ThG12 (2007)
27. A. D'Orazio, D. de Ceglia, M. De Sario, V. Petruzzelli, F. Prudenzano, "Second order nonlinear interactions in period waveguides," Proceedings of 6th International Conference Transparent Optical Networks 1, 126 (2004) [**INVITED PAPER**]

CONTRIBUTI (ABSTRACT O ARTICOLO BREVE) IN ATTI DI CONFERENZE INTERNAZIONALI (41)

1. H. Chen, V. Corboliou, A. S. Solntsev, D. Choi, M. A. Vincenti, D. Ceglia, C. Angelis, Y. Lu, and D. N. Neshev, "Control of Second-Harmonic Generation from Two-Dimensional MoSe2 in a Guided Wave Geometry," Proceedings of ICMAT 2017, Singapore, June 18-23 2017.
2. H. Chen, V. Corboliou, A. S. Solntsev, D. Choi, M. A. Vincenti, D. Ceglia, C. Angelis, Y. Lu, and D. N. Neshev, "Enhanced second-harmonic generation from two-dimensional MoSe2 by waveguide integration," in Conference on Lasers and Electro-Optics, OSA Technical Digest, paper FM2F.4, 2017.
3. M. Grande, G. V. Bianco, M. A. Vincenti, T. Stomeo, D. de Ceglia, P. Capezzuto, V. Petruzzelli, M. De Vittorio, M. Scalora, G. Bruno, A. D'Orazio, "Graphene-based absorbers: from microwave to visible frequencies", EMN Meeting on Photonics 2016, September 19-23, Barcelona (Spain) 2016 [INVITED TALK]
4. M. Grande, A. Qualtieri, M. A. Vincenti, D. de Ceglia, V. Petruzzelli, M. Scalora, A. D'Orazio, M. De Vittorio and T. Stomeo, "Guided mode resonances in nano-imprinted dielectric pillars", Micro and Nano Engineering 2016, 19-23 September, Wien (Austria) 2016
5. D. de Ceglia, M. A. Vincenti, M. Grande, G. Bianco, G. Bruno, A. D'Orazio, and M. Scalora, "Control of Fano resonances in graphene-based gratings at telecom wavelengths," Conference on Lasers and Electro-Optics OSA Technical Digest 2016, paper FF2D.5, June 2016, San Jose - CA - USA
6. M. Grande, G. V. Bianco M. A. Vincenti, D. de Ceglia, P. Capezzuto, V. Petruzzelli, M. Scalora, G. Bruno, and A. D'Orazio, "Optically transparent microwave devices based on engineered graphene," Graphene 2016, Genova (Italy) - April 19-22, 2016
7. D. de Ceglia, M. A. Vincenti, C. De Angelis, A. Locatelli, J. W. Haus, M. Scalora, "Harmonic generation from nanoantenna arrays," OSA Nonlinear Metamaterial Incubator, September 2015, Washington DC (USA). [**INVITED SPEAKER**]
8. D. de Ceglia, M.A. Vincenti, M. Grande, A. D'Orazio, M. Scalora, "Enhanced Nonlinear Interactions in Graphene-based Photonic Structures," Progress In Electromagnetics Research Symposium (PIERS), July 2015, Prague (Czech Republic). [**INVITED SPEAKER**]

9. D. de Ceglia, M.A. Vincenti, S. Campione, F. Capolino, J.W. Haus, M. Scalora , "Harmonic Double-resonance Cones in Hyperbolic Metamaterials," Progress In Electromagnetics Research Symposium (PIERS), July 2015, Prague (Czech Republic). [**INVITED SPEAKER**]

10. D. de Ceglia, M. A. Vincenti, C. De Angelis, A. Locatelli, J. W. Haus, M. Scalora, "Second-harmonic light generated by dipole nanoantennas," Conference on Lasers and Electro-Optics/Europe and European Quantum Electronics Conference (CLEO/Europe-EQEC 2015), June 2015, Munich (Germany)

11. T.S. Luk, D. de Ceglia, G.A. Keeler, R.P. Prasankumar, M.A. Vincenti, S. Liu, M. Scalora, M.B. Sinclair, and S. Campione, "Third harmonic generation in ultrathin epsilon-near-zero media," CLEO, May 10-15, 2015, San Jose, CA, USA

12. D. de Ceglia, M. A. Vincenti, C. De Angelis, A. Locatelli, J. W. Haus, M. Scalora, "Second Harmonic Light Scattering from Symmetric and Asymmetric Dipole Nanoantennas," Latin America Optics and Photonics Conference (LAOP) 2014, Cancun, Mexico, November 16-21, LTu2D.2 (2014) [**INVITED SPEAKER**]

13. M. A. Vincenti, D. de Ceglia, M. Scalora, "Highly Efficient Second and Third Harmonic Generation in Thin Films with Near-Zero Permittivity," Frontiers in Optics, Orlando - FL, United States October 6-11, NTu2A.3 (2013)

14. M. A. Vincenti, M. Grande, D. de Ceglia, A. D'Orazio, M. Scalora, "Enhanced Third Harmonic Generation in 1D photonic crystals with a graphene layer defect," Frontiers in Optics, Orlando - FL, United States October 6-11, FTu3A.4 (2013)

15. D. de Ceglia, M. A. Vincenti, S. Campione, F. Capolino, M. Scalora, "Leaky Modes in Low-Damping ϵ-Near-Zero Slabs," Frontiers in Optics, Orlando - FL, United States October 6-11, FTu2D.6 (2013)

16. M. Grande, G. V. Bianco, M. A. Vincenti, D. de Ceglia, V. Petruzzelli, G. Bruno, M. Scalora, A. D'Orazio, M. De Vittorio and T. Stomeo, "Graphene plasmonics for visible-NIR and THz applications," 39th International Conference on Micro and Nano Engineering. 587, London 16 – 19 September (2013)

17. M. A. Vincenti, D. de Ceglia, M. Scalora, "Highly efficient second and third harmonic generation in thin films with near-zero permittivity," Nonlinear Optics 2013, Kohala Coast, Hawaii July 21-26, paper NTu2A.3 (2013)

18. D. de Ceglia, M. A. Vincenti, S. Campione, F. Capolino, M. Scalora, "Nonlocal Effects on second harmonic generation in low-damping epsilon-near-zero slabs," Nonlinear Optics 2013, Kohala Coast, Hawaii July 21-26, paper NTu2A.4 (2013)

19. M. Grande, T. Stomeo, M. A. Vincenti, G. V. Bianco, D. de Ceglia, V. Petruzzelli, G. Bruno, M. De Vittorio, A. D'Orazio, M. Scalora, "Fabrication of 2D plasmonic gold nanopatches on graphene," Graphene Nanophotonics, Benasque (Spain), March 3-8 (2013)

20. D. de Ceglia, S. Campione, M. A. Vincenti, F. Capolino, M. Scalora, "Harmonic generation, optical multistability and nonlocal effects in near-zero permittivity metamaterial slabs near pseudo-Brewster angle," SPIE Photonics West - Paper 8632-65, San Francisco, CA February 2-7 (2013)

21. S. Campione, D. de Ceglia, M. A, Vincenti, M. Scalora, F. Capolino, "Conditions for electric field enhancement in ε-near-zero slabs under TM-polarized oblique incidence," USNC–URSI National Radio Science Meeting, Boulder, CO – 9-12 January, B1-6 (2013)

22. V. Roppo, M. A. Vincenti, D. de Ceglia, C. Cojocaru, M. Scalora, "Inhomogeneous Second Harmonic Waveguiding," NLO 50 International Symposium, Barcelona - Spain, 8-10 October, TP.VR2 (2012)

23. M. Scalora, M. A. Vincenti, D. de Ceglia, M. Grande, J. W. Haus, "Stimulated Raman scattering near metal nanostructures," Proceedings of SPIE Optics and Photonics San Diego USA (2012) [**INVITED PAPER**]

24. M. A. Vincenti, S. Campione, D. de Ceglia, M. Scalora and F. Capolino, "Second and Third Harmonic Generation at ε-Near-Zero Crossing Point in Arrays of Plasmonic Nanoshells," Proceedings of CLEO 2012, San Jose, CA – USA, paper JW4A.38 (2012)

25. S. Campione, M. A. Vincenti, D. de Ceglia, and F. Capolino, "Loss-Compensation in 3D Periodic Arrays of Nanoshells through Quantum Dots, and ε-Near-Zero Metamaterials," Proceedings of CLEO 2012, San Jose, CA – USA, paper QM2E.7 (2012)

26. M. Grande, M.A. Vincenti, T. Stomeo, G. V. Bianco, G. Morea, R. Marani, V. Marrocco, D. de Ceglia, V. Petruzzelli, M. De Vittorio, G. Bruno, M. Scalora and A. D'Orazio, "Two-dimensional plasmonic nano-structures for linear and nonlinear regimes," MINAP2012 - Micro- and nano-photonic materials and devices, Trento - Italy (2012) -

27. M. Grande, M.A. Vincenti, T. Stomeo, G. Morea, R. Marani, V. Marrocco, V. Petruzzelli, A. D'Orazio, R. Cingolani, M. De Vittorio, D. de Ceglia, G. V. Bianco, G. Bruno, and M. Scalora, "Two-dimensional plasmonic nanostructures for sensing applications," Proceedings of 4th Mediterranean Conference on Nano-Photonics, Rome – Italy (2011)

28. D. de Ceglia, G. D'Aguanno, N. Mattiucci, M. A. Vincenti, and M. Scalora, "Second Harmonic Generation (SHG) from Resonant GaAs Gratings," Proceedings of CLEO/Europe and EQEC 2011, Munich – Germany, paper EF2_5 (2011)

29. M. A. Vincenti, D. de Ceglia, V. Roppo and M. Scalora, "UV and Visible Harmonic Generation Through Enhanced Transmission from GaAs-filled Nanocavities," Metamaterials 2011, Barcelona – Spain, 784-786 (2011)

30. M. Scalora, V. Roppo, M. A. Vincenti, D. de Ceglia, N. Akozbek, "Harmonic generation and energy transport in GaP At visible and UV wavelengths," Proc. of SPIE Optics and Photonics 8093 (2011)

31. M. A. Vincenti, D. de Ceglia, M. C. Buncick, M. Scalora, and M. J. Bloemer, "Phase-locked Second Harmonic Generation In Gaas Nanocavities," in Nonlinear Photonics, OSA Technical Digest, paper NME19 (2010)

32. D. de Ceglia, M. A. Vincenti, N. Akozbek, M. Buncick, V. Roppo, M. J. Bloemer, and M. Scalora, "Nano-Channeling of Light via Phase-Locked Second Harmonic Generation," in Nonlinear Photonics, OSA Technical Digest, paper NME32 (2010)

33. M. A. Vincenti, D. de Ceglia, M. C. Buncick N. Akozbek, M. J. Bloemer, M. Scalora, "Extraordinary Transmission in the UV Range from Sub-wavelength Slits on Semiconductors," OSA/CLEO/QELS 2010, JthE6 (2010)

34. D. de Ceglia, M.A. Vincenti, V. Roppo, N. Akozbek, M.J. Bloemer, M. Scalora, "Phase-Locked Second Harmonic Generation in Sub-Wavelength Channel," Proceedings of Contents Frontiers in Optics 2009 (FiO)/Laser Science XXV (LS)/Plasmonics and Metamaterials (META)/ Optical Fabrication and Testing (OF&T), FThW2 (2009)

35. M.A. Vincenti, A. D'Orazio, D. de Ceglia, M. Scalora, M.J. Bloemer, "Extraordinary Transmission and Nonlinear Response for Semiconductors in the UV Range," Proceedings of Contents Frontiers in Optics 2009 (FiO)/Laser Science XXV (LS)/Plasmonics and Metamaterials (META)/ Optical Fabrication and Testing (OF&T), FWC6 (2009)
36. M. A. Vincenti, M. Scalora, V. Roppo, D. de Ceglia, A. D'Orazio, M.J. Bloemer, "Enhanced Transmission Response from Subwavelength Slits in Semiconductors in the UV range," Proceedings of Metamaterials 2009, pp. 82-84 (2009)
37. M.A. Vincenti, D. de Ceglia, M. Scalora, M. Buncick, A. D'Orazio, "Theoretical Analysis of Enhanced Transmission Response Through Nanoslits on Metallic Screens," Proceedings of 9th International Conference on Physics of Light-Matter Coupling in Nanostructures, Lecce 16-20 April 2009, pp.189-190 (2009)
38. M.A. Vincenti, D. de Ceglia, M. De Sario, V. Petruzzelli, A. D'Orazio, F. Prudenzano, M. Scalora, "Enhancing Linear and Nonlinear Response of Subwavelength Slits on Metal Substrates," Proceedings of the COST MP0702, 1 (2008)
39. M. Scalora, G. D'Aguanno, N. Akozbek, M. Centini, D. de Ceglia, M. Cappeddu, N. Mattiucci, J. W. Haus, M. J. Bloemer, "Negative Refraction and Sub-wavelength Resolution Using Transparent Metallo-Dielectric Stacks," European Optical Society 16-19 October 2006 Paris, Conference Proceedings – TOM 3, 31 (2006)
40. J.W. Haus, M. Scalora, G. D'Aguanno, M.J. Bloemer, D. de Ceglia, M. Centini, N. Mattiucci, N. Akozbek, M. Cappeddu, M. Fowler, "Negative refraction and sub-wavelength focusing in the visible range using transparent metal-dielectric stacks," Proceedings on International Symposium on Biophotonics, Nanophotonics and Metamaterials (2006)
41. D. de Ceglia, A. D'Orazio, M. Scalora, "Counter-propagating pulses in a NIM cavity," Proceedings of Optical Society of America – Frontiers in Optics (2006)
42. M. Scalora, G. D'Aguanno, N. Akozbek, M. Centini, D. de Ceglia, M. Cappeddu, N. Mattiucci, J. W. Haus, M. J. Bloemer, " Negative Refraction and Superresolution Using Transparent Metallo-Dielectric Stacks," Proceedings of Optical Society of America – Frontiers in Optics (2006)
43. D. de Ceglia, M. Centini, A. D'Orazio, M. De Sario, V. Petruzzelli, F. Prudenzano, M. Cappeddu, M. J. Bloemer, M. Scalora, "Quadratic nonlinear interactions in metamaterials," European Optical Society 16-19 Ottobre 2006 Parigi, Conference Proceedings – TOM 3, 106 (2006)

CONTRIBUTI IN ATTI DI CONFERENZE NAZIONALI (5)

1. D. de Ceglia, M. Centini, A. D'Orazio, M. De Sario, V. Petruzzelli, F. Prudenzano, M. J. Bloemer, M. Scalora, "Impulsi contro-propaganti in una cavità a indice di rifrazione negativo," Atti della Conferenza RiNEm 2006 Genova, 18-21 Settembre 2006, 238 (2006)
2. M. Grande, V. Petruzzelli, A. D'Orazio, M.A. Vincenti, D. de Ceglia, G.V. Bianco, G. Bruno, M. Scalora, M. De Vittorio, T. Stomeo, "Graphene-based One-Dimensional Photonic Crystal as Tunable and Saturable Absorber," Proceedings of FOTONICA 2014, Naples - Italy, May 12-14 (2014)
3. D. Biallo, M. Bozzetti, A. D'Orazio, D. de Ceglia, M. De Sario, V. Marrocco, V. Petruzzelli, F. Prudenzano, "Progetto di un divisore di lunghezze d'onda in cristallo fotonico

bidimensionale con cavità accoppiate," Atti della Conferenza Fotonica 2005 - Trani (Bari), 33 (2005)

4. N. Albano, M. Bozzetti, A. D'Orazio, D. de Ceglia, V. Petruzzelli, F. Prudenzano, "Progetto di un transistor tutto-ottico basato sull'effetto cascata delle non linearità quadratiche," Atti della Conferenza Fotonica 2005 - Trani (Bari), 435 (2005)
5. D. Biallo, A. D'Orazio, D. de Ceglia, V. Marrocco, L. Mescia, V. Petruzzelli, F. Prudenzano, "Analisi di una guida d'onda planare in SiO_2-TiO_2 drogata con Er3+ mediante l'algoritmo ADE-FDTD," Atti della Conferenza. Fotonica 2005 – Trani (Bari), 439 (2005)