Curriculum di Costantino De Angelis

Attuale recapito

Dipartimento di Ingegneria dell'Informazione, Facoltà di Ingegneria, Università di Brescia, via Branze 38, 25123 Brescia. Tel: +(39)030-3715437, Fax: +(39)030-380014, E-mail: deangeli@ing.unibs.it, http://www.ing.unibs.it/~deangeli.

Attuale occupazione

Professore Ordinario (settore scientifico disciplinare ING-INF/02 - CAMPI ELETTROMAGNETICI) presso la Facoltà di Ingegneria, Dipartimento di di Ingegneria dell'Informazione, Università di Brescia, via Branze 38, 25123 Brescia.

Istruzione

Luglio 1983: Diploma di Maturità Classica (58/60).

Giugno 1989: Laurea in Ingegneria Elettronica (110/110 e lode), presso l'Università di Padova. Tesi di Laurea: "Caratterizzazione di fibre ottiche drogate con GeO_2 assoggettate ad esperimenti di Scattering Raman Stimolato" (premio SIP, Padova, 1989). Relatore: Prof. C.G. Someda.

Novembre 1993: Dottorato di Ricerca in Ingegneria Elettronica e Telecomunicazioni con una dissertazione finale dal titolo: "Non linearità in ottica guidata: applicazioni all'elaborazione e alla trasmissione dell'informazione". Relatore: Prof. C. G. Someda.

Dati di servizio

Aprile 1990 - Marzo 1992: borsista CNR nel "Progetto Finalizzato Telecomunicazioni" nella tematica "Comunicazioni ottiche a larga banda".

Ottobre 1993 - Settembre 1994: assunto come "Visiting Research Lecturer" dal Dipartimento di Matematica e Statistica dell'Università del Nuovo Messico ad Albuquerque (USA).

Ottobre 1994 - Ottobre 1998: Ricercatore Universitario (settore scientifico disciplinare K02X) presso la Facoltà di Ingegneria, Dipartimento di Elettronica e Informatica, Università di Padova.

Ottobre 1996 – Settembre 1997: Ricercatore invitato presso l'IRCOM (Istituto di Ricerca sulle Comunicazioni Ottiche e le Microonde) presso l'Università di Limoges, Francia.

Novembre 1998 – Dicembre 2003: Professore Associato (settore scientifico disciplinare ING-INF/02) presso la Facoltà di Ingegneria, Dipartimento di Elettronica per l'Automazione, Università di Brescia.

Febbraio 2003: idoneità nella procedura di valutazione comparativa per Professore universitario di I^a fascia per il settore scientifico disciplinare ING-INF/02.

Gennaio 2004 – : Professore Ordinario (settore scientifico disciplinare ING-INF/02) presso la Facoltà di Ingegneria, Dipartimento di Elettronica per l'Automazione, Università di Brescia.

Summer 2010: appointed by the Massachusetts Institute of Technology as Invited Professor with a research proposal entitled: "Linear and Nonlinear Plasmonic Optical Circuits at the Nanoscale".

2010-2012: Director of the Department of Information Engineering of the University of Brescia.

Summer 2011: appointed by the Massachusetts Institute of Technology as Invited Professor with a research proposal entitled: "Linear and Nonlinear Plasmonic Optical Circuits at the Nanoscale".

Summer 2012: appointed by the Abbe School of Photonics in Jena as Invited Professor for lecturing on "Modeling of broadband optical pulse propagation in quadratic media".

2012-2016: Deputy of the Director of the Department of Information Engineering of the

University of Brescia for the coordination of the research activities of the Department.
2016-…: Deputy of the Director of the Department of Information Engineering of the University of Brescia for the coordination of the research activities of the Department.
2017-…: Elevato al grado di "Fellow Member" della Optical Society of America.

Attività di ricerca

La mia attività di ricerca scientifica è prevalentemente dedicata alle problematiche legate alla propagazione elettromagnetica in ottica integrata e in sistemi di comunicazione ottici. In questo contesto, l'interesse è rivolto alla propagazione di onde elettromagnetiche in strutture dielettriche guidanti e non, in presenza di perdite, amplificazione ed effetti non lineari. Particolare attenzione viene dedicata all'elettromagnetismo nei materiali bidimensionali (ad esempio il grafene) e alla nanofotonica.

Partecipazione a progetti di ricerca:
1998-1999: responsabile scientifico per l'unità di Brescia di un progetto ESPRIT LTR sulla commutazione ottica (4^0 programma quadro, progetto ORBOQSI-27543, in collaborazione con le Università di Limoges e di Southampton).
1998-1999: responsabile scientifico del progetto bilaterale CNR "High bit-rate soliton transmission" (in collaborazione con l'Università dell'Arizona).
1999-2000: responsabile della Convenzione fra il Dipartimento di Elettronica per l'Automazione dell'Università di Brescia e la ASM Brescia S.p.A. per il progetto: "Trasmissione su fibra ottica con multiplazione a divisione di lunghezza d'onda".
2000-2002: responsabile della Convenzione fra l'Università di Brescia e la Pirelli Optical Systems Italia S.p.A. per il progetto: "Sviluppo di fibre attive in silice drogata con ioni erbio per l'amplificazione ottica in banda L".
2000-2002: responsabile scientifico per l'unità di Brescia del progetto "Tecnologia innovativa per la realizzazione di dispositivi fotonici parametrici in guide di niobato di litio", finanziato dal MURST nell'ambito dei progetti di ricerca di interesse nazionale anno 2000.
2000-2003: responsabile scientifico per l'unità di Brescia di un progetto europeo IST FET sulla commutazione ottica (5^0 programma quadro, progetto ROSA IST-2000-26005, in collaborazione con le Università di Jena, di Limoges, di Paderborn, di Regensburg e della Florida).
2003-2005: responsabile scientifico per l'unità di Brescia del progetto "Metodi e modelli numerici di dispositivi fotonici per reti ad alta capacità", finanziato dal MURST nell'ambito dei progetti di ricerca di base ad alto contenuto scientifico e tecnologico, anche a valenza internazionale.
2003-2005: responsabile scientifico per l'unità di Brescia del progetto "Modellizzazione teorica e numerica di dispositivi parametrici e a gap fotonica in guide ottiche ottenute per scambio protonico in niobato di litio con inversione periodica superficiale dei domini ferroelettrici", finanziato dal MURST nell'ambito dei progetti di ricerca di interesse nazionale anno 2003.
2005-2007: responsabile scientifico per l'unità di Brescia del progetto "Modellizzazione teorica e numerica di dispositivi parametrici e a gap fotonica in guide ottiche in niobato e tantalato di

litio con inversione periodica superficiale dei domini ferroelettrici", finanziato dal MURST nell'ambito dei progetti di ricerca di interesse nazionale anno 2005.
2007-2008: responsabile scientifico per il Dipartimento di Elettronica per l'Automazione dell'intesa fra Comune di Brescia e Dipartimento di Elettronica per l'Automazione per la realizzazione del piano di settore per gli impianti di telefonia mobile.
2008-2009: responsabile scientifico per l'unità di Brescia del progetto "Generatori di forme d'onda ottiche in guide d'onda microstrutturate", finanziato dal MIUR nell'ambito dei progetti di ricerca di interesse nazionale anno 2007.
2010-2011: responsabile scientifico del progetto "Optical waveform generators based on temporal and spectral shaping in nonlinear metamaterials", finanziato da European Office of Aerospace Research and Development (2010).
2010-2013: responsabile scientifico del progetto "Tecnologie, materiali e metodologie per la conversione, il risparmio e il recupero energetico", finanziato dalla Regione Lombardia nell'ambito Dote Ricercatori e Dote Ricerca Applicata 2010.
2011-2013: responsabile scientifico del progetto "Engineering optical non-linearities using plasmon resonances in metal-insulator metamaterials", finanziato dalla Fondazione CARIPLO nell'ambito Ricerca scientifica e tecnologica sui materiali avanzati 2010.
2014-2017: responsabile scientifico per l'Università degli Studi di Brescia del progetto "Second harmonic plasmon-enhanced sensing", finanziato dalla Fondazione CARIPLO nell'ambito Ricerca scientifica e tecnologica sui materiali avanzati 2013.
2014-2018: responsabile scientifico del progetto ERASMUS MUNDUS *"Europe - Asia - Pacific Exchange programme in Nanophotonics"* (NANOPHI).

Riviste internazionali

1. H. Chen, V. Corboliou, A.S. Solntsev, D.-Y. Choi, M. A. Vincenti, D. de Ceglia, C. De Angelis, Y. Lu, D. N. Neshev, "Enhanced second-harmonic generation from two-dimensional MoSe2 on a silicon waveguide," Light: Science & Applications, vol. 6, page e17060 doi:10.1038/lsa.2017.60 (2017).
2. G. Della Valle, B. Hopkins, L. Ganzer, T. Stoll, M. Rahmani, S. Longhi, Y. S. Kivshar, C. De Angelis, D. N. Neshev, G. Cerullo, "Nonlinear Anisotropic Dielectric Metasurfaces for Ultrafast Nanophotonics," ACS Photonics vol. 4, 2129 (2017).
3. M. Baselli, A. L. Baudrion, L. Ghirardini, G. Pellegrini, E. Sakat, L. Carletti, A. Locatelli, C. De Angelis, P. Biagioni, L. Duò, M. Finazzi, P. M. Adam, M. Celebrano, "Plasmon-Enhanced Second Harmonic Generation: from Individual Antennas to Extended Arrays," Plasmonics, vol. 12, 1595 (2017).
4. D. Rocco, L. Carletti, A. Locatelli, C. De Angelis, "Controlling the directivity of all-dielectric nanoantennas excited by integrated quantum emitters," J. Opt. Soc. Am. B, vol. 34, p. 1918 (2017).
5. V. F. Gili, L. Carletti, F. Chouchane, G. Wang, C. Ricolleau, D. Rocco, A. Lemaître, I. Favero, L. Ghirardini, M. Finazzi, M. Celebrano, C. De Angelis, G. Leo, "Role of the substrate in monolithic AlGaAs nonlinear nanoantennas," DOI 10.1515/nanoph-2017-0026 (2017).
6. M. Guasoni, L. Carletti, D. Neshev, C. De Angelis, "Theoretical Model for Pattern Engineering of Harmonic Generation in All-Dielectric Nanoantennas." IEEE Journal of Quantum Electronics 53 (3): 1–5. doi:10.1109/JQE.2017.2697973 (2017).
7. L. Carletti, D. Rocco, A. Locatelli, C. De Angelis, V. F. Gili, M. Ravaro, I. Favero, et al., "Controlling second-harmonic generation at the nanoscale with monolithic AlGaAs-on-AlOx antennas," Nanotechnology, vol. 28, no. 11, p. 114005 (2017).
8. M. A. Vincenti, D. de Ceglia, C. De Angelis, M. Scalora, "Surface-Plasmon Excitation of Second-Harmonic Light: Emission and Absorption." Journal of the Optical Society of America B 34 (3): 633. doi:10.1364/JOSAB.34.000633 (2017).
9. L. Ghirardini, L. Carletti, V. Gili, G. Pellegrini, L. Duò, M. Finazzi, D. Rocco, A. Locatelli, C. De Angelis, I. Favero, M. Ravaro, G. Leo, A. Lemaitre, M. Celebrano,"Polarization properties of second-harmonic generation in AlGaAs optical nanoantennas," Optics Letters, vol. 42, no. 3, p. 559 (2017).
10. R. Camacho-Morales, M. Rahmani, S. Kruk, L. Wang, L. Xu, D. A. Smirnova, A. S. Solntsev, A. Miroshnichenko, H. Hoe Tan, F. Karouta, S. Naureen, K. Vora, L. Carletti, C. De Angelis, C. Jagadish, Y. S. Kivshar, D. N. Neshev, "Nonlinear Generation of Vector Beams From AlGaAs Nanoantennas," Nano Letters 16, pp. 7191–7197 (2016).

11. V. F. Gili, L. Carletti, A. Locatelli, D. Rocco, M. Finazzi, L. Ghirardini, I. Favero, C. Gomez, A. Lemaître, M. Celebrano, C. De Angelis, and G. Leo, "Monolithic AlGaAs second-harmonic nanoantennas," Optics Express 24, 15965 (2016).
12. L. Carletti, A. Locatelli, D. Neshev, and C. De Angelis, "Shaping the Radiation Pattern of Second-Harmonic Generation from AlGaAs Dielectric Nanoantennas," ACS Photonics 3, pp. 1500-1507 (2016).
13. C. De Angelis, A. Locatelli, A. Mutti, A. Aceves, "Coupling dynamics of 1D surface plasmon polaritons in hybrid graphene systems," Optics Letters 41, pp. 480-483 (2016).
14. N. Bontempi, L. Carletti, C. De Angelis, I. Alessandri, "Plasmon-free SERS detection of environmental CO2 on TiO2 surfaces," Nanoscale 8, pp. 3226–3231 (2016).
15. L. Carletti, A. Locatelli, O. Stepanenko, G. Leo, C. De Angelis, "Enhanced second-harmonic generation from magnetic resonance in AlGaAs nanoantennas," *Optics Express* **23**, p. 26544 (2015).
16. M. Celebrano, X. Wu, M. Baselli, S. Grossman, P. Biagioni, A. Locatelli, C. De Angelis, G. Cerullo, R. Osellame, B. Hecht, L. Duò, F. Ciccacci, M. Finazzi, "Mode-matching in multiresonant plasmonic nanoantennas for enhanced second harmonic generation", *Nature Nanotechnology*, **10**, pp. 412–417 (2015).
17. A. Locatelli, G. Town, C. De Angelis, "Graphene-based terahertz waveguide modulators", *IEEE Transactions on Terahertz Science and Technology*, invited paper, **5**, pp. 351–357 (2015).
18. C. De Angelis, D. Modotto, A. Locatelli, S. Wabnitz, "Optical guided wave switching," Springer Series in Optical Sciences, 194, pp. 71-104 (2015).
19. D. de Ceglia, M. A. Vincenti, C. De Angelis, A. Locatelli, J. W. Haus, and M. Scalora, "Role of antenna modes and field enhancement in second harmonic generation from dipole nanoantennas," *Optics Express*, vol. 23, pp. 1715-1729 (2015).
20. A. Locatelli, A.-D. Capobianco, G. Nalesso, S. Boscolo, M. Midrio, C. De Angelis, "Graphene based electro-optical control of the beat length of dielectric couplers", Optics Communications **318**, pp. 175–179 (2014).
21. S. Dal Conte, M. Conforti, D. Petti, E. Albisetti, S. Longhi, R. Bertacco, C. De Angelis, G. Cerullo, and G. Della Valle, "Disentangling electrons and lattice nonlinear optical response in metal-dielectric Bragg filters", PHYSICAL REVIEW B **89**, 125122 (2014).
22. A. Locatelli, D. Modotto, C. De Angelis, S. Boscolo, M. Midrio, and A.D. Capobianco, "Design of fully printed omnidirectional CRLH loop antennas for WLAN technology", MICROWAVE AND OPTICAL TECHNOLOGY LETTERS 56, pp. 1405-1408 (2014).
23. A.-D. Capobianco, A. Locatelli, C. De Angelis, S. Boscolo, and M. Midrio, "Finite-Difference Beam Propagation Method for Graphene-Based Devices", *IEEE PHOTONICS TECHNOLOGY LETTERS* **26**, pp. 1007-1010 (2014).
24. A. Auditore, M. Conforti, C. De Angelis, A. B. Aceves, "Dark-Antidark Solitons in Waveguide Arrays with Alternating Positive-Negative Couplings", *Optics Communications* **297**, pp. 125–128 (2013).
25. A. Auditore, C. De Angelis, A. Locatelli, A. B. Aceves, "Tuning of surface plasmon polaritons beat length in graphene directional couplers", *Optics Letters* **38**, pp. 4228-4231 (2013).
26. A. Cacciatori, D. Modotto, S. Boscolo, M. Midrio, A. Locatelli, C. De Angelis, Z. M. Kovacs-Vajna, "Broadband Printed Directional Bow-Tie Antenna for the 500-1600-MHz Band", Microwave and Optical Technology Letters **55**, pp. 2329-2333 (2013).
27. A. Auditore, M. Conforti, C. De Angelis, A. B. Aceves, "Dark-Antidark Solitons in Waveguide Arrays with Alternating Positive-Negative Couplings", *Optics Communications* **297**, pp. 125-128 (2013).
28. A. Auditore, C. De Angelis, A. Locatelli, S. Boscolo, M. Midrio, M. Romagnoli, A.-D. Capobianco, G. Nalesso, "Graphene sustained nonlinear modes in dielectric waveguides", *Optics Letters* **38,** pp. 631-633 (2013).
29. U. Minoni , G. Manili, S. Bettoni, E. Varrenti, D. Modotto, C. De Angelis, "Chromatic confocal setup for displacement measurement using a supercontinuum light source", *Optics & Laser Technology* **49**, pp. 91–94 (2013).
30. M. Midrio, S. Boscolo, M. Moresco, M. Romagnoli, C. De Angelis, A. Locatelli, A.D. Capobianco, "Graphene–assisted critically–coupled optical ring modulator", *Optics Express* **20**, 23144 (2012).
31. A. Locatelli, A.-D. Capobianco, M. Midrio, S. Boscolo, and C. De Angelis, "Graphene-assisted control of coupling between optical waveguides" , *Optics Express* **20**, 28479 (2012).
32. F. Baronio, M. Conforti, C. De Angelis, M. Andreana, A. Tonello,V. Couderc, "Tunable light source from large band conversion of continuum in a quadratic crystal", Laser Phys. Lett. **9**, pp. 359–362 (2012).
33. M. Levenius, M. Conforti, F. Baronio, V. Pasiskevicius, F. Laurell, C. De Angelis, and Katia Gallo, "Multistep quadratic cascading in broadband optical parametric generation", *Optics Letters* **37**, pp. 1727-1729 (2012).
34. M. Conforti, C. De Angelis, T. R. Akylas, A. B. Aceves, "Modulational stability and gap solitons of gapless systems: Continuous versus discrete limits", *Physical Review A* **85**, 063836 (2012).
35. M. Guasoni, C. De Angelis, "Analytical approximations of the dispersion relation of a linear chain of metal nanoparticles", *Optics Communications* **284**, pp. 1822-1827 (2011).
36. M. Midrio, M. Romagnoli, S. Boscolo, C. De Angelis, A. Locatelli, D. Modotto, A.-D. Capobianco, "Flared Monopole Antennas for 10-μm Radiation", *IEEE Journal of Quantum Electronics*, **47**, pp. 84-91 (2011).
37. M. Conforti, C. De Angelis, T. R. Akylas, "Energy localization and transport in binary waveguide arrays", *Physical Review A* **83**, 043822 (2011).
38. G. Manili, D. Modotto, U. Minoni, S. Wabnitz, C. De Angelis, G. Town, A. Tonello, V. Couderc, "Modal four-wave mixing supported generation of supercontinuum light from the infrared to the visible region in a birefringent multi-core microstructured optical fiber", *Optical Fiber Technology* **17**, pp. 160-167 (2011).

39. M. Conforti, F. Baronio, C. De Angelis, M. Marangoni, G. Cerullo, "Theory and experiments on multistep parametric processes in nonlinear optics", *J. Opt. Soc. Am. B* **28**, pp. 892-895 (2011).
40. M. Conforti, F. Baronio, C. De Angelis, "Modeling of ultrabroadband and single-cycle phenomena in anisotropic quadratic crystals", *J. Opt. Soc. Am. B* **28**, pp. 1231-1237 (2011).
41. T. Stomeo, M. Grande, G. Rainò, A. Passaseo, A. D'Orazio, V. Marrocco, R. Cingolani, A. Locatelli, D. Modotto, C. De Angelis, M. De Vittorio, "Optical filter based on a coupled bilayer photonic crystal", *Microelectronic Engineering* **88,** pp. 2771-2774 (2011).
42. D. Duchesne, K. A. Rutkowska, M. Volatier, F. Légaré, S. Delprat, M. Chaker, D. Modotto, A. Locatelli, C. De Angelis, M. Sorel, D. N. Christodoulides, G. Salamo, R. Arès, V. Aimez, R. Morandotti, "Second harmonic generation in AlGaAs photonic wires using low power continuous wave light", *Optics Express* **19**, pp. 12408-12417 (2011).
43. F. Baronio, M. Andreana, M. Conforti, G. Manili, V. Couderc, C. De Angelis, A. Barthelemy, "Soliton triads ensemble in frequecy conversion: from inverse scattering theory to experimental observation", *Optics Express* **19**, pp. 13192-13200 (2011).
44. V. V. Kozlov, N. N. Rosanov, C. De Angelis, S. Wabnitz, "Generation of unipolar pulses from nonunipolar optical pulses in a nonlinear medium", *Physical Review A* **84**, 023818 (2011).
45. A. Locatelli, S. Boscolo, A.-D. Capobianco, M. Midrio, C. De Angelis, "Nanoscale Control of the Radiation Properties of Coupled Nanoantennas", *IEEE PHOTONICS TECHNOLOGY LETTERS* **23**, pp. 1541-1543 (2011).
46. D. Modotto, G. Manili, U. Minoni, S. Wabnitz, C. De Angelis, G. Town, A. Tonello, V. Couderc, "Ge-Doped Microstructured Multicore Fiber for Customizable Supercontinuum Generation", *IEEE Photonics Journal* **3**, pp. 1149-1156 (2011).
47. M. Andreana, F. Baronio, M. Conforti, A. Tonello, C. De Angelis, V. Couderc, "Mode-locking operation of a flash-lamp-pumped Nd:YAG laser at 1.064μm with Zakharov-Manakov solitons", Laser Phys. Lett. **8**, pp. 795-798 (2011).
48. A. Locatelli, D. Modotto, F. M. Pigozzo, S. Boscolo, E. Autizi, C. De Angelis, A. D. Capobianco, M. Midrio, "Increasing directionality of planar Ultra Wide Band antennas", *Microwave and Optical Technology Letters*, **52**, pp. 78-82 (2010).
49. M. Guasoni, M. Conforti, C. De Angelis, "Light propagation in nonuniform plasmonic subwavelength waveguide arrays", *Opt. Comm.* **283**, pp. 1161-1168 (2010).
50. T. Stomeo, M. Grande, G. Rainò, A. Passaseo, A. D'Orazio, R. Cingolani, A. Locatelli, D. Modotto, C. De Angelis, M. De Vittorio, "Optical filter based on two coupled PhC GaAs-membranes", *Opt. Lett.* **35**, pp. 411-413 (2010).
51. F. Baronio, M. Conforti, C. De Angelis, A. Degasperis**,** M. Andreana, V. Couderc, A. Barthélémy, "Velocity-Locked SolitaryWaves in Quadratic Media", *Physical Review Letters* **104**, pp. 113902 (1-4) (2010).
52. C. De Angelis, A. Locatelli, D. Modotto, S. Boscolo, M. Midrio, A. D. Capobianco, "Frequency addressing of nano-objects by electrical tuning of optical antennas", *Journal of the Optical Society of America B* **27**, pp. 997-1001 (2010).
53. A.-D. Capobianco, F.M. Pigozzo, A. Locatelli, D. Modotto, C. De Angelis, S. Boscolo, F. Sacchetto, M. Midrio, "Directive Ultra-Wideband Planar Antennas", Microwave and Millimeter Wave Technologies Modern UWB antennas and equipment, I-Tech Education and Publishing, pp. 1-18, ISBN: 978-953-7619-67-1 (2010).
54. F. Baronio, M. Conforti, C. De Angelis, A. Degasperis, S. Lombardo, S. Wabnitz, "Frequency conversion based on three-wave parametric solitons"**,** Advances in Lasers and Elecro-Optics, I-Tech Education and Publishing, pp. 113-136, ISBN: 978-953-307-088-9 (2010).
55. M. Conforti, F. Baronio, C. De Angelis, "Nonlinear envelope equation for broadband optical pulses in quadratic media"**,** *Physical Review A* 81, 053841(1-4) (2010).
56. M. Conforti, F. Baronio, C. De Angelis, "Utra-broadband optical phenomena in quadratic nonlinear media"**,** *IEEE Photonics Journal* **2**, pp. 600-610 (2010).
57. A. Locatelli, D. Modotto, F. M. Pigozzo, S. Boscolo, C. De Angelis, A. D. Capobianco, M. Midrio, "A planar, differential, and directive Ultra-Wideband antenna", *IEEE Transactions on Antennas and Propagation,* **58**, pp. 2439-2442 (2010).
58. F. Baronio, C. De Angelis, V. Couderc, A. Barthélémy, W. Sohler, "Bi-directional spatial soliton emission at engineered nonlinear waveguide interfaces", *Optics Communications* **283**, pp. 4342-4345 (2010).
59. M. Marangoni, D. Brida, M. Conforti, A. D. Capobianco, C. Manzoni, F. Baronio, G. F. Nalesso, C. De Angelis, R. Ramponi, G. Cerullo, "Synthesis of picosecond pulses by spectral compression and shaping of femtosecond pulses in engineered quadratic nonlinear media", *Opt. Lett.* **34**, pp. 241-243 (2009).
60. F. Baronio, M. Conforti, M. Andreana, V. Couderc, C. De Angelis, S. Wabnitz, A.Barthelemy, A. Degasperis, "Frequency Generation and Solitonic Decay in ThreeWave Interactions", *Optics Express*, **17**, pp. 13889-13894 (2009).
61. A. Locatelli, C. De Angelis, D. Modotto, S. Boscolo, F. Sacchetto, M. Midrio, A. D. Capobianco, F. M. Pigozzo, C. G. Someda, "Modeling of enhanced field confinement and scattering by optical wire antennas", *Optics Express* **17**, pp. 16792-16800 (2009).
62. M. Conforti, F. Baronio, C. De Angelis,G. Sanna, D. Pierleoni, P. Bassi, "Spectral shaping of femtosecond pulses in aperiodic quasi-phase-matched gratings", *Optics Communications*, **281**, pp. 1693-1697 (2008).
63. M. Conforti, C. De Angelis, U. K. Sapaev, G. Assanto, "Pulse shaping via Backward Second Harmonic Generation", *Optics Express*, **16**, pp. 2115-2121 (2008).
64. M. Marangoni, G. Sanna, D. Brida, M. Conforti, G. Cirmi, C. Manzoni, F. Baronio, P. Bassi, C. De Angelis, G. Cerullo, "Observation of spectral drift in engineered quadratic nonlinear media", *Applied Physics Letters*, **93**, 021107-1-3 (2008).
65. M. Guasoni, A. Locatelli, C. De Angelis, "Peculiar properties of photonic crystal binary waveguide arrays", *Journal of the Optical Society of America B* **25**, pp. 1515-1522 (2008).
66. M. Conforti, M. Guasoni, C. De Angelis, "Subwavelength diffraction management", *Opt. Lett.* **33**, pp. 2662-2664 (2008).

67. D. Modotto, M. Conforti, A. Locatelli, C. De Angelis, "Imaging Properties of Multimode Photonic Crystal Waveguides and Waveguide Arrays", *Journal of Lightwave technology* **25**, pp. 402-409 (2007).
68. C. De Angelis, V. Ferrari, D. Marioli, E. Sardini, M. Serpelloni, A. Taroni, "Magnetically induced oscillations on a conductive cantilever for resonant microsensors", *Sensors and Actuators A* **135**, pp. 197-202 (2007).
69. M. Conforti, F. Baronio, C. De Angelis, "From femtosecond infrared to picosecond visible pulses: temporal shaping with high efficiency conversion", *Optics Letters* **32**, pp. 1179-1781 (2007).
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