

Lista delle pubblicazioni dell'UdR Roma Tre, anno 2008

- [1] Alessandro Alberucci and Gaetano Assanto. All-optical isolation by directional coupling. *OPTICS LETTERS*, 33(15):1641–1643, AUG 1 2008.
- [2] Gaetano Assanto, T. R. Marchant, and Noel F. Smyth. Collisionless shock resolution in nematic liquid crystals. *PHYSICAL REVIEW A*, 78(6, Part B), DEC 2008.
- [3] Gaetano Assanto and Marco Peccianti. Guiding and routing light with nematicons. *MOLECULAR CRYSTALS AND LIQUID CRYSTALS*, 488:163–178, 2008.
- [4] Gaetano Assanto, Noel F. Smyth, and Annette L. Worthy. Two-color, nonlocal vector solitary waves with angular momentum in nematic liquid crystals. *PHYSICAL REVIEW A*, 78(1), JUL 2008.
- [5] P. Barone, R. Raimondi, M. Capone, C. Castellani, and M. Fabrizio. Gutzwiller scheme for electrons and phonons: The half-filled Hubbard-Holstein model. *PHYSICAL REVIEW B*, 77(23), JUN 2008.
- [6] Chiara Battocchio, Ilaria Fratoddi, Maria Vittoria Russo, and Giovanni Polzonetti. H₂S gas interaction with Pt(II)-containing polymetallaynes of selected chain length: An XPS and EXAFS study. *JOURNAL OF PHYSICAL CHEMISTRY A*, 112(32):7365–7373, AUG 12 2008.
- [7] M. Bernabei, A. Botti, F. Bruni, M. A. Ricci, and A. K. Soper. Percolation and three-dimensional structure of supercritical water. *PHYSICAL REVIEW E*, 78(2, Part 1), AUG 2008.
- [8] M. Bernabei and M. A. Ricci. Percolation and clustering in supercritical aqueous fluids. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 20(49, Sp. Iss. SI), DEC 10 2008.
- [9] Riccardo Borghi. Joint use of the Weniger transformation and hyperasymptotics for accurate asymptotic evaluations of a class of saddle-point integrals. *PHYSICAL REVIEW E*, 78(2, Part 2), AUG 2008.
- [10] Riccardo Borghi. On the numerical evaluation of cuspid diffraction catastrophes. *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA A-OPTICS IMAGE SCIENCE AND VISION*, 25(7):1682–1690, JUL 2008.
- [11] Riccardo Borghi. Summing Pauli asymptotic series to solve the wedge problem. *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA A-OPTICS IMAGE SCIENCE AND VISION*, 25(1):211–218, JAN 2008.
- [12] A. Botti, F. Bruni, R. Mancinelli, M. A. Ricci, F. Lo Celso, R. Triolo, F. Ferrante, and A. K. Soper. Study of percolation and clustering in supercritical water-CO₂ mixtures. *JOURNAL OF CHEMICAL PHYSICS*, 128(16), APR 28 2008.

- [13] Dean P. Brown, Alexis K. Spilman, Thomas G. Brown, Riccardo Borghi, S. N. Volkov, and Emil Wolf. Spatial coherence properties of azimuthally polarized laser modes. *OPTICS COMMUNICATIONS*, 281(21):5287–5290, NOV 1 2008.
- [14] Alessandro C. Busacca, Elena D’Asaro, Stefano Riva Sanseverino, and Gaetano Assanto. Stable Proton Exchanged Waveguides in Lithium Tantalate. *IEEE PHOTONICS TECHNOLOGY LETTERS*, 20(21-24):2126–2128, NOV-DEC 2008.
- [15] L. Capogna, A. Martinelli, M. G. Francesconi, P. G. Radaelli, J. Rodriguez Carvajal, O. Cabeza, M. Ferretti, C. Castellano, T. Corridoni, and N. Pompeo. Crystal and magnetic structures of $(\text{La}_{0.70}\text{Ca}_{0.30})(\text{CrMn}_{1-y})\text{O}_3$: A neutron powder diffraction study. *PHYSICAL REVIEW B*, 77(10), MAR 2008.
- [16] M. Cherchi, S. Stivala, A. Pasquazi, A. C. Busacca, S. Riva Sanseverino, A. C. Cino, L. Colace, and G. Assanto. Second-harmonic generation in surface periodically poled lithium niobate waveguides: on the role of multiphoton absorption. *APPLIED PHYSICS B-LASERS AND OPTICS*, 93(2-3, Sp. Iss. SI):559–565, NOV 2008.
- [17] Gabriella Cincotti, Gianluca Manzacca, Valentina Sacchieri, Xu Wang, Naoya Wada, and Ken-ichi Kitayama. Secure OCDM Transmission Using a Planar Multiport Encoder/Decoder. *JOURNAL OF LIGHTWAVE TECHNOLOGY*, 26(13-16):1798–1806, JUL-AUG 2008.
- [18] Gabriella Cincotti, Gianluca Manzacca, Xu Wang, Tetsuya Miyazaki, Naoya Wada, and Ken-ichi Kitayama. Reconfigurable multiport optical encoder/decoder with enhanced auto-correlation. *IEEE PHOTONICS TECHNOLOGY LETTERS*, 20(1-4):168–170, JAN-FEB 2008.
- [19] Gabriella Cincotti, Leo Spiekman, Naoya Wada, and Ken-ichi Kitayama. Spectral coherent-state quantum cryptography. *OPTICS LETTERS*, 33(21):2461–2463, NOV 1 2008.
- [20] Lorenzo Colace, Gaetano Assanto, Dom Fulgoni, and Lee Nash. Near-Infrared p-i-n Ge-on-Si Photodiodes for Silicon Integrated Receivers. *JOURNAL OF LIGHTWAVE TECHNOLOGY*, 26(13-16):2954–2959, JUL-AUG 2008.
- [21] Lorenzo Colace, Michele Balbi, Vito Soriano, and Gaetano Assanto. Temperature-Dependence of Ge on Si p-i-n Photodetectors. *JOURNAL OF LIGHTWAVE TECHNOLOGY*, 26(13-16):2211–2214, JUL-AUG 2008.
- [22] T. Comaschi, A. Balerna, and S. Mobilio. Temperature dependence of the structural parameters of gold nanoparticles investigated with EXAFS. *PHYSICAL REVIEW B*, 77(7):075432, FEB 2008.
- [23] Matteo Conforti, Costantino De Angelis, Usman K. Sapaev, and Gaetano Assanto. Pulse shaping via backward second harmonic generation. *OPTICS EXPRESS*, 16(3):2115–2121, FEB 4 2008.

- [24] D. Corradini, P. Gallo, and M. Rovere. Thermodynamic behavior and structural properties of an aqueous sodium chloride solution upon supercooling. *JOURNAL OF CHEMICAL PHYSICS*, 128(24), JUN 28 2008.
- [25] F. Da Pieve, D. Sebilliau, S. Di Matteo, R. Gunnella, R. Gotter, A. Ruocco, G. Stefani, and C. R. Natoli. Multiple scattering approach for two-electron resonant emission studied by angle-resolved coincidence spectroscopy. *PHYSICAL REVIEW B*, 78(3), JUL 2008.
- [26] M. De Seta, G. Capellini, and F. Evangelisti. Alloying in Ge(Si)/Si(001) self-assembled islands during their growth and capping: XPS and AFM study. *PHYSICAL REVIEW B*, 77(4):045431, JAN 2008.
- [27] L. Di Gaspare, A. Notargiacomo, E. Giovine, M. De Seta, G. Capellini, M. Pea, G. Ciasca, and F. Evangelisti. 2DEG based on strained Si on SGOI substrate. *PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES*, 40(5):1611–1613, MAR 2008.
- [28] F. Evangelista, R. Gotter, N. Mahne, S. Nannarone, A. Ruocco, and P. Rudolf. Electronic properties and orbital-filling mechanism in Rb-intercalated copper phthalocyanine. *JOURNAL OF PHYSICAL CHEMISTRY C*, 112(16):6509–6514, APR 24 2008.
- [29] M. C. Feliciangeli, M. C. Rossi, G. Conte, and V. Ralchenko. Nitrogen-doped ultrananocrystalline carbon: Response to small amplitude AC signals. *PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES*, 40(7):2583–2588, MAY 2008.
- [30] Luca Floreano, Albano Cossaro, Roberto Gotter, Alberto Verdini, Gregor Bavdek, Fabrizio Evangelista, Alessandro Ruocco, Alberto Morgante, and Dean Cvetko. Periodic arrays of Cu-phthalocyanine chains on Au(110). *JOURNAL OF PHYSICAL CHEMISTRY C*, 112(29):10794–10802, JUL 24 2008.
- [31] D. M. Forin, S. Di Bartolo, G. M. Tosi Beleffi, F. Curti, G. Cincotti, A. Vecchi, S. Ragana, and A. L. J. Teixeira. Giga Ethernet free-space passive optical networks. *FIBER AND INTEGRATED OPTICS*, 27(4):229–236, 2008.
- [32] Hideaki Furukawa, Naoya Wada, Yoshinari Awaji, Tetsuya Miyazaki, Eddie Kong, Peter Chan, Ray Man, Gabriella Cincotti, and Ken-ichi Kitayama. Field trial of 160 Gbit/s DWDM-based optical packet switching and transmission. *OPTICS EXPRESS*, 16(15):11487–11495, JUL 21 2008.
- [33] Katia Gallo, Alessia Pasquazi, Salvatore Stivala, and Gaetano Assanto. Parametric solitons in two-dimensional lattices of purely nonlinear origin. *PHYSICAL REVIEW LETTERS*, 100(5):053901, FEB 8 2008.
- [34] F. Gori, M. Santarsiero, and R. Borghi. Modal expansion for J(0)-correlated electromagnetic sources. *OPTICS LETTERS*, 33(16):1857–1859, AUG 15 2008.

- [35] F. Gori, M. Santarsiero, R. Borghi, and V. Ramirez-Sanchez. Realizability condition for electromagnetic Schell-model sources. *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA A-OPTICS IMAGE SCIENCE AND VISION*, 25(5):1016–1021, MAY 2008.
- [36] Franco Gori. Partially correlated sources with complete polarization. *OPTICS LETTERS*, 33(23):2818–2820, DEC 1 2008.
- [37] Franco Gori, Massimo Santarsiero, Riccardo Borghi, and Chun-Fang Li. Partially correlated thin annular sources: the scalar case. *JOURNAL OF THE OPTICAL SOCIETY OF AMERICA A-OPTICS IMAGE SCIENCE AND VISION*, 25(11):2826–2832, NOV 2008.
- [38] C. Gorini, P. Schwab, M. Dzierzawa, and R. Raimondi. Spin polarizations and spin Hall currents in a two-dimensional electron gas with magnetic impurities. *PHYSICAL REVIEW B*, 78(12), SEP 2008.
- [39] Cosimo Gorini, Peter Schwab, Michael Dzierzawa, and Roberto Raimondi. Quasiclassical approach and spin-orbit coupling. *PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES*, 40(5):1078–1080, MAR 2008.
- [40] Andreas Hall, Jan Swenson, Stefan Adams, and Carlo Meneghini. Mixed Mobile Ion Effect and Cooperative Motions in Silver-Sodium Phosphate Glasses. *PHYSICAL REVIEW LETTERS*, 101(19), NOV 7 2008.
- [41] S. Imberti, W. Kockelmann, M. Celli, F. Grazzi, M. Zoppi, A. Botti, A. Sodo, M. Leo Imperiale, M. de Vries-Melein, D. Visser, and H. Postma. Neutron diffractometer INES for quantitative phase analysis of archaeological objects. *MEASUREMENT SCIENCE & TECHNOLOGY*, 19(3), MAR 2008.
- [42] Giovanna Iucci, Chiara Battocchio, Monica Dettin, Roberta Gambaretto, and Giovanni Polzonetti. A NEXAFS and XPS study of the adsorption of self-assembling peptides on TiO₂: the influence of the side chains. *SURFACE AND INTERFACE ANALYSIS*, 40(3-4):210–214, MAR-APR 2008.
- [43] Falk Lederer, George I. Stegeman, Demetri N. Christodoulides, Gaetano Asanto, Moti Segev, and Yaron Silberberg. Discrete solitons in optics. *PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS*, 463(1-3):1–126, JUL 2008.
- [44] A. Liscio, A. Ruocco, G. Stefani, and S. Iacobucci. Two-step-wise interpretation of highly asymmetric, grazing angle (e,2e) on solids: A real momentum spectroscopy for surfaces and overlayers. *PHYSICAL REVIEW B*, 77(8), FEB 2008.
- [45] P. Lucignano, R. Raimondi, and A. Tagliacozzo. Spin Hall effect in a two-dimensional electron gas in the presence of a magnetic field. *PHYSICAL REVIEW B*, 78(3):035336, JUL 2008.

- [46] Gianluca Manzacca, Kurt Hingerl, and Gabriella Cincotti. Quantum Optical-Effect-Based Tunable Switches and Delay Lines. *IEEE JOURNAL OF QUANTUM ELECTRONICS*, 44(9-10):872–878, SEP-OCT 2008.
- [47] M. Milletari, R. Raimondi, and P. Schwab. Magneto-spin Hall conductivity of a two-dimensional electron gas. *EPL*, 82(6), JUN 2008.
- [48] S. Monti, V. Carravetta, C. Battocchio, G. Iucci, and G. Polzonetti. Peptide/TiO₂ surface interaction: A theoretical and experimental study on the structure of adsorbed ALA-GLU and ALA-LYS. *LANGMUIR*, 24(7):3205–3214, APR 1 2008.
- [49] M. Svaluto Moreolo, V. Morra, and G. Cincotti. Design of photonic crystal delay lines based on enhanced coupled-cavity waveguides. *JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS*, 10(6), JUN 2008.
- [50] F. Offi, S. Iacobucci, P. Vilmercati, A. Rizzo, A. Goldoni, M. Sacchi, and G. Panaccione. Attenuation lengths of low-energy electrons in solids: The case of CoO. *PHYSICAL REVIEW B*, 77(20):201101, MAY 2008.
- [51] Francesco Offi, Norman Mannella, Tommaso Pardini, Giancarlo Panaccione, Andrea Fondacaro, Piero Torelli, Mark. W. West, John F. Mitchell, and Charles S. Fadley. Temperature-dependent electronic structure of the colossal magnetoresistive manganite La_{0.7}Sr_{0.3}MnO₃ from hard x-ray photoemission. *PHYSICAL REVIEW B*, 77(17), MAY 2008.
- [52] S. E. Pagnotta, M. A. Ricci, F. Bruni, S. McLain, and S. Magazu. Water structure around trehalose. *CHEMICAL PHYSICS*, 345(2-3):159–163, APR 18 2008.
- [53] G. Panaccione, F. Offi, P. Torelli, G. Vanko, O. Tjernberg, P. Lacovig, A. Guarino, A. Fondacaro, A. Nigro, M. Sacchi, N. B. Brookes, and G. Monaco. Analysis of surface-bulk screening competition in the electron-doped Nd_{2-x}Ce_xCuO₄ cuprate using x-ray photoemission spectroscopy. *PHYSICAL REVIEW B*, 77(12), MAR 2008.
- [54] Giancarlo Panaccione, Francesco Offi, Maurizio Sacchi, and Piero Torelli. Hard X-ray PhotoEmission Spectroscopy of strongly correlated systems. *COMPTES RENDUS PHYSIQUE*, 9(5-6):524–536, JUN-AUG 2008.
- [55] A. Pasquazi, S. Stivala, G. Assanto, V. Amendola, M. Meneghetti, M. Cucini, and D. Comoretto. In situ tuning of a photonic band gap with laser pulses. *APPLIED PHYSICS LETTERS*, 93(9), SEP 1 2008.
- [56] Alessia Pasquazi, Salvatore Stivala, Gaetano Assanto, Jose Gonzalo, and Javier Solis. Transverse nonlinear optics in heavy-metal-oxide glass. *PHYSICAL REVIEW A*, 77(4), APR 2008.

- [57] Marco Peccianti, Andriy Dyadyusha, Malgosia Kaczmarek, and Gaetano Assanto. Escaping Solitons from a Trapping Potential. *PHYSICAL REVIEW LETTERS*, 101(15), OCT 10 2008.
- [58] A. Piccardi, G. Assanto, L. Lucchetti, and F. Simoni. All-optical steering of soliton waveguides in dye-doped liquid crystals. *APPLIED PHYSICS LETTERS*, 93(17), OCT 27 2008.
- [59] A. Pietropaolo, R. Senesi, C. Andreani, A. Botti, M. A. Ricci, and F. Bruni. Excess of proton mean kinetic energy in supercooled water. *PHYSICAL REVIEW LETTERS*, 100(12), MAR 28 2008.
- [60] G. Polzonetti, C. Battocchio, M. Dettin, R. Gambaretto, C. Di Bello, V. Caravetta, S. Monti, and G. Iucci. Self-assembling peptides: A combined XPS and NEXAFS investigation on the structure of two dipeptides Ala-Glu, Ala-Lys. *MATERIALS SCIENCE & ENGINEERING C-BIOMIMETIC AND SUPRAMOLECULAR SYSTEMS*, 28(2):309–315, MAR 10 2008.
- [61] N. Pompeo, V. Galluzzi, R. Rogai, G. Celentano, and E. Silva. Change of strength of vortex pinning in YBCO due to BaZrO₃ inclusions. *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*, 468(7-10):745–748, APR 1 2008.
- [62] N. Pompeo, H. Schneidewind, and E. Silva. Microwave vortex dynamics in Tl-2212 thin films. *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*, 468(7-10):852–855, APR 1 2008.
- [63] N. Pompeo and E. Silva. Reliable determination of vortex parameters from measurements of the microwave complex resistivity. *PHYSICAL REVIEW B*, 78(9), SEP 2008.
- [64] N. Pompeo, E. Silva, M. Ausloos, and R. Cloots. Microwave properties of DyBa₂Cu₃O_{7-x} monodomains and related compounds in magnetic fields. *JOURNAL OF APPLIED PHYSICS*, 103(10), MAY 15 2008.
- [65] Simona Quartieri, Federico Boscherini, Chiara Dalconi, Gianluca Iezzi, Carlo Meneghini, and Roberta Oberti. Magnesium K-edge EXAFS study of bond-length behavior in synthetic pyrope-grossular garnet solid solutions. *AMERICAN MINERALOGIST*, 93(2-3):495–498, FEB-MAR 2008.
- [66] Parasmani Rajput, Ajay Gupta, Carlo Meneghini, D. K. Avasthi, Nora Darowski, I. Zizak, and A. Erko. Depth resolved structural study of heavy ion induced phase formation in Si/Fe/Si trilayer. *HYPERFINE INTERACTIONS*, 185(1-3):9–15, JUL 2008.
- [67] A. Ruocco, F. Evangelista, R. Gotter, A. Attili, and G. Stefani. Evidence of charge transfer at the Cu-phthalocyanine/AI(100) interface (Reprinted from J. Phys. Chem

- A, vol 111, 2007). *JOURNAL OF PHYSICAL CHEMISTRY C*, 112(6):2016–2025, FEB 14 2008.
- [68] A. Sacchetti, T. Corridoni, E. Arcangeletti, and P. Postorino. High pressure Raman study of $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ -delta manganites. *EUROPEAN PHYSICAL JOURNAL B*, 66(3):301–305, DEC 2008.
- [69] Usman K. Sapaev and Gaetano Assanto. Efficient high-harmonic generation in engineered quasi-phase matching gratings. *OPTICS EXPRESS*, 16(1):1–6, JAN 7 2008.
- [70] Armida Sodo, Domenico Artioli, Alberto Botti, Giovanna De Palma, Annamaria Giovagnoli, Maurizio Mariottini, Alessandra Paradisi, Costantino Polidoro, and Maria Antonietta Ricci. The colours of Etruscan painting: a study on the Tomba dell’Orco in the necropolis of Tarquinia. *JOURNAL OF RAMAN SPECTROSCOPY*, 39(8):1035–1041, AUG 2008.
- [71] V. Sorianello, A. Perna, L. Colace, G. Assanto, H. C. Luan, and L. C. Kimerling. Near-infrared absorption of germanium thin films on silicon. *APPLIED PHYSICS LETTERS*, 93(11), SEP 15 2008.
- [72] Ampere A. Tseng, Shyankay Jou, Andrea Notargiacomo, and T. P. Chen. Recent developments in tip-based nanofabrication and its roadmap. *JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY*, 8(5):2167–2186, MAY 2008.
- [73] Floriana Vitale, Rosa Vitaliano, Chiara Battocchio, Ilaria Fratoddi, Cinzia Giannini, Emanuela Piscopiello, Antonella Guagliardi, Antonio Cervellino, Giovanni Polzonetti, Maria Vittoria Russo, and Leander Tapfer. Synthesis and Microstructural Investigations of Organometallic Pd(II) Thiol-Gold Nanoparticles Hybrids. *NANOSCALE RESEARCH LETTERS*, 3(11):461–467, NOV 2008.
- [74] Wolfgang S. M. Werner, Alessandro Ruocco, Francesco Offi, Stefano Iacobucci, Werner Smekal, Hannspeter Winter, and Giovanni Stefani. Role of surface and bulk plasmon decay in secondary electron emission. *PHYSICAL REVIEW B*, 78(23), DEC 2008.
- [75] Satoshi Yoshimaa, Naoya Wada, Gabriella Cincotti, Tetsuya Miyazaki, and Ken-ichi Kitayama. Multicast-capable optical-code label packet switch: Proposal and its experimental demonstration. *OPTICAL SWITCHING AND NETWORKING*, 5(1):29–37, MAR 2008.