

PUBBLICAZIONI

Di seguito è riportata una lista non esaustiva delle pubblicazioni più significative svolte da ciascuna UO nell'ambito di attività di CIDEA dal **2013 ad oggi**

UNITÀ OPERATIVA	PUBBLICAZIONI
Energia	<p>Abbate C, Alderighi M, Baccaro S, Busatto G, Citterio M, Cova P, Delmonte N, De Luca V, Fiore S, Geraldin S, Ghisolfi E, Giuliani F, Iannuzzo F, Lanza A, Latorre S, Lazzaroni M, Meneghesso G, Paccagnella A, Rampazzo F, Riva M, Sanseverino A, Silvestri R, Spiazzi G, Velardi F, Zandoni E. Developments on DC/DC converters for the LHC experiment upgrades; 2014; Journal of Instrumentation, Vol. 9, paper C02017</p> <p>Abbate C, Busatto G, Cova P, Delmonte N, Giuliani F, Iannuzzo F, Sanseverino A, Velardi F. Analysis of heavy ion irradiation induced thermal damage in SiC Schottky diodes; 2015; IEEE Transactions on Nuclear Science, Vol. 62, pagg. 202-219</p> <p>Ameel J, Amidei D, Baccaro S, Citterio M, Cova P, Delmonte N, Edgar KS, Edgar R, Fiore S, Lanza A, Lazzaroni M, Latorre S, Yang Y. Radiation-Hard Power Electronics for the ATLAS New Small Wheel; 2015; Journal of Instrumentation, Vol. 10, paper C01009</p> <p>Barater D., Buticchi G., Lorenzani E., Concari C., "Active Common-Mode Filter for Ground Leakage Current Reduction in Grid-Connected PV Converters Operating With Arbitrary Power Factor"; 2014; IEEE Transactions on Industrial Electronics; Vol. 61, No. 8; pp. 3940-3950.</p> <p>Barater D., Concari C., Buticchi G., Gurpinar, E., Castellazzi, A., "Performance Evaluation of a Three-Level ANPC Photovoltaic Grid-Connected Inverter With 650-V SiC Devices and Optimized PWM"; 2016; IEEE Transactions on Industry Applications; Vol. 52, No. 3; pp. 2475-2485.</p> <p>Barater D., Lorenzani E., Concari C., Franceschini G., Buticchi G., "Recent Advances in Single-Phase Transformerless Photovoltaic Inverters"; 2016; IET Renewable Power Generation; Vol. 10, No. 2; pp. 260-273.</p> <p>Bozzoli F, L Cattani, C Corradi, M Mordacci, S Rainieri, G Pagliarini (2014). Experimental estimation of local heat transfer coefficient in coiled tubes with corrugated wall. In: Proceedings 32nd UIT Heat Transfer Conference. p. 1-10, PISA:Università di Pisa, Pisa, 23-25 June 2014</p> <p>Bozzoli F., L. Cattani, G. Pagliarini, S. Rainieri (2015). INFRARED IMAGING OF THE CONVECTIVE HEAT TRANSFER COEFFICIENT DISTRIBUTION IN COILED TUBES. OPTO-ELECTRONICS REVIEW, vol. 23, p. 107-115</p> <p>Bozzoli F., L. Cattani, S. Rainieri, G. Pagliarini (2013). ESTIMATION OF LOCAL HEAT TRANSFER COEFFICIENT IN COILED TUBES UNDER INVERSE HEAT CONDUCTION PROBLEM APPROACH. In: Proc. 8th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics. p. 1-6, Lisbona, 16-20 June 2013</p> <p>Bozzoli F., L. Cattani, S. Rainieri, G. Pagliarini (2014). Estimation of local heat transfer coefficient in coiled tubes under inverse heat conduction problem approach. EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol. 59, p. 246-251</p> <p>Bozzoli F., Pagliarini G., Rainieri S. (2013). Experimental Validation of the Filtering Technique Approach Applied to the Restoration of the Heat Source Field. EXPERIMENTAL THERMAL AND FLUID SCIENCE, vol. 44, p. 858-867</p> <p>Bozzoli Fabio, Cattani Luca, Rainieri Sara, Pagliarini Giorgio (2015). NONINTRUSIVE DETERMINATION OF LOCAL HEAT TRANSFER COEFFICIENT IN PIPES UNDER THE INVERSE HEAT CONDUCTION PROBLEM APPROACH. In: 2015 Inverse Problems Symposium. East Lansing:Michigan State University, Michigan State University, 31 May - 2 June 2015</p> <p>Buticchi G., Barater D., Concari C., Franceschini G., "Single-Phase Series Active Power Filter with Transformer-Coupled Matrix Converter"; 2016;</p> <p>Buticchi G., Barater D., Lorenzani E., Concari C., Franceschini G., "A Nine-Level Grid-Connected Converter Topology for Single-Phase Transformerless PV Systems"; 2014; IEEE Transactions on Industrial Electronics; Vol. 61, No. 8; pp. 3951-3960.</p>

Buticchi G., Liserre M., Barater D., Concarì C., Soldati A., Franceschini G., "Frequency-Based Control of a Micro-grid with Multiple Renewable Energy Sources"; 2014; Proc. IEEE ECCE 2014, Pittsburgh, PA, USA, 14-18 September 2014; pp. 5273-5280.

Calabrese L., F. Bozzoli, G. Bochicchio, B. Tessadri, S. Rainieri, G. Pagliarini (2014). Thermal characterization of intumescent fire retardant paints. In: Proceedings 32nd UIT Heat Transfer Conference. p. 1-10, Pisa:University of Pisa, Pisa, 23-25 June 2014

Casoli P., Luca Riccò, Federico Campanini, Antonio Lettini, Cesare Dolcin (2015) "Mathematical model of an hydraulic excavator for fuel consumption predictions" Proceedings of the ASME/BATH 2015 Symposium on Fluid Power & Motion Control FPMC2015 October 12-14, 2015, Chicago, Illinois, United States ISBN: 978-0-7918-5723-6. Paper No. FPMC2015-9566, pp. V001T01A035; 10 pages . doi:10.1115/FPMC2015-9566

Casoli P., A. Gambarotta N. Pompini, L. Riccò (2015) "Coupling excavator hydraulic system and internal combustion engine models for the Real-Time simulation" Control Engineering Practice (2015), pp. 26-37 DOI information: 10.1016/j.conengprac.2015.04.003. Codice Scopus: 2-s2.0-84928891181.

Casoli P., A. Gambarotta, N. Pompini, L. Riccò (2014). "Development and application of co-simulation and control-oriented modeling in the improvement of performance and energy saving of mobile machinery", Energy Procedia, Volume 45, 2014, Pages 849–858. Elsevier. <http://dx.doi.org/10.1016/j.egypro.2014.01.090>. Codice Scopus: 2-s2.0-84893640233. Codice isi: 000345384000089

Casoli P., A. Gambarotta, N. Pompini, L. Riccò (2016) "Hybridization methodology based on DP algorithm for hydraulic mobile machinery — Application to a middle size excavator" Automation in Construction Volume 61, January 2016, Pages 42–57. doi:10.1016/j.autcon.2015.09.012., codice scopus: 2-s2.0-84949604486. Codice wos: 000366779700004

Casoli P., L. Riccò, F. Campanini, A. Lettini, C. Dolcin (2016) "Hydraulic Hybrid Excavator: Layout Definition, Experimental Activity, Mathematical Model Validation and Fuel Consumption Evaluation" 10th International Fluid Power Conference (pp. 185-199 vol. 3) March 8-10, 2016, Dresden.

Concarì C., Cova P., Franceschini G., Toscani A., Bertoluzza F., "Improved Control Strategy for Modular 2MVA AC/AC Power Converter"; 2013; Concarì C., Franceschini G., Tassoni C., Toscani A., "Validation of a Faulted Rotor Induction Machine Model With an Insightful Geometrical Interpretation of Physical Quantities"; 2013; IEEE Transactions on Industrial Electronics, Vol. 60, No. 9; pp. 4074-4083.

Concarì C., Franceschini G., Toscani A., "Vibrationless alignment algorithm for incremental encoder based BLDC drives"; 2013; Electric Power Systems Research; Vol. 95; pp. 225-231.

Concarì L., Barater D., Buticchi G., Concarì C., Liserre M., "H8 Inverter for Common-Mode Voltage Reduction in Electric Drives"; 2016; Concarì L., Degano M., Toscani A., Barater D., Concarì C., Pellegrino G., "Comparison of Flux Observers in Sensorless Control for Permanent Magnet Assisted SynRel Motors"; 2016; Proc. IEEE IECON 2016, Florence, Italy, 24-28 October 2016; pp. 2719-2724 Delmonte N, Barater D, Giuliani F, Cova P, Buticchi G. Review of oscillating water column converters; 2016; IEEE Transactions on Industry; Vol. 52, n. 2, pagg. 1698-1710

Cugini F., Porcari G. and Solzi M.; Non-contact direct measurement of the magnetocaloric effect in thin samples; 2014; Review of Scientific Instruments; 85; 074902-1-6

Cugini F., Porcari G., Fabbri S., Albertini F., Solzi M.; Influence of the transition width on the magnetocaloric effect across the magnetostructural transition of Heusler alloys; 2016; Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences; 374; 20150306-1-15.

Cugini F., Porcari G., Viappiani C., Caron L., O. dos Santos, Cardoso L.P., Passamani E.C., Proveti J.R.C., Gama S., Brück E. H., and Solzi M.; Millisecond direct measurement of the magnetocaloric effect of Fe₂P-based compounds by the mirage effect; 2016; Applied Physics Letters; 108; 012407-1-4

Fabbri S., Porcari G., Cugini F., Solzi M., Kamarad J., Arnold Z., Cabassi R., Albertini F.; Co and In doped Ni-Mn-Ga magnetic shape memory alloys: a thorough structural, magnetic and magnetocaloric study; 2014; Entropy; 16; 2204-2222

	<p>Giuliani F, Dipankar D, Delmonte N, Castellazzi A, Cova P. Robust snubberless soft-switching power converter using SiC power MOSFETs and bespoke thermal design; <i>Microelectronics Reliability</i>, 2014; Vol. 54, pagg. 1916-1920</p> <p>Giuliani F., Barater D., Concarì C., Cova P., Delmonte N., Menozzi R., Buticchi G., Tarisciotti L., "Modular Photovoltaic Inverter with High-Frequency DC/DC Stage Based on Low-Voltage FETs"; 2014; Proc. IEEE ECCE 2014, Pittsburgh, PA, USA, 14-18 September 2014; pp. 39-46. <i>IEEE Transactions on Industry Applications</i>; Vol. 52, No. 5; pp. 4010-4019. <i>IET Power Electronics</i>; Vol. 9, No. 6; pp. 1279-1289.</p> <p>Pagliarini Giorgio, Rainieri Sara, Vocale Pamela (2014). Energy Efficiency of Existing Buildings: Optimization of Building Cooling, Heating and Power (BCHP) Systems. <i>ENERGY & ENVIRONMENT</i>, vol. 25, p. 1423-1438</p> <p>Pietrini G., Barater D., Concarì C., Galea M., Gerada C., "Closed-Form Approach for Predicting Overvoltage Transients in Cable-Fed PWM Motor Drives for MEA"; 2016; Proc. IEEE ECCE 2016, Milwaukee, WI, USA, 18-22 September 2016.</p> <p>Porcari G., Buzzi M., Cugini F., Pellicelli R., Pernechele C., Caron L., Brück E., and Solzi M.; Direct magnetocaloric characterization and simulation of thermomagnetic cycles; 2013; <i>Review of Scientific Instruments</i>; 84; 073907-1-7</p> <p>Porcari G., Morrison K., Cugini F., Turcaud J. A., Guillou F., Berenov A., van Dijk N. H., Sandeman K. G., Brück E., Cohen L. F., and Solzi M.; Influence of the Thermal Conductivity on the Dynamic Response of MCE Materials; 2015; <i>International Journal of Refrigeration</i>; 59; 29-36 Proc. IEEE ECCE 2013, Denver, CO, USA, 15-19 Sept. 2013; pp. 5294-5300.</p> <p>Rainieri S, Bozzoli F, Cattani L, Pagliarini G. (2013). Compound convective heat transfer enhancement in helically coiled wall corrugated tubes. <i>INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER</i>, vol. 59, p. 353-362</p> <p>Rainieri S., L. Calabrese, F. Bozzoli, G. Pagliarini (2013). Parameter estimation approach applied to the characterization of an intumescent fire retardant paint. In: Proc. XXXI UIT Heat Transfer Conference. p. 1-10, Como, 25-27 Giugno 2013.</p> <p>Singh S., Caron L., D'Souza S. W., Fichtner T., Porcari G., Fabbri S., Shekhar C., Chadov S., Solzi M., and Felser C.; Large Magnetization and Reversible Magnetocaloric Effect at the Second-Order Magnetic Transition in Heusler Materials; 2016; <i>Advanced Materials</i>; 28; 3321-3325</p> <p>Soldati A., Barater D., Brugnano F., Concarì C., "Design of a Control Unit for Advanced Gate Drivers Featuring Adaptive Dead-Time and Diagnostics"; 2015; Proc. IEEE IECON 2015, Yokohama, Japan, 9-12 November 2015; pp. 2485-2490.</p> <p>Soldati A., Barater D., Concarì C., Franceschini G., "Comparing Control Topologies for Wide-Bandgap Power-Device Drivers: a Simulation Study"; 2015; Proc. IEEE IECON 2015, Yokohama, Japan, 9-12 November 2015; pp. 2469-2474.</p> <p>Soldati A., Barater D., Concarì C., Galea M., Gerada C., "A Voltage Controlled Power Resistor Circuit for Active Gate Driving of Wide-Bandgap Power Devices"; 2015; Proc. IEEE IECON 2015, Yokohama, Japan, 9-12 November 2015; pp. 2445-2450.</p> <p>Soldati A., Pietrini G., Barater D., Concarì C., "Stability and Performance Analysis of a Voltage Controlled Resistor Circuit for Wide Band-gap Device Gate Drivers"; 2016; Proc. PCIM 2016, Nuremberg, Germany, 10-12 May 2016; pp. 1584-1591.</p> <p>Soldati A., Zanichelli R., Brugnano F., Concarì C., "Implementing Discrete PID Controllers: Benchmarking Manual vs. Automatic Generation of Embedded Code"; 2016; Proc. IEEE IECON 2016, Florence, Italy, 24-28 October 2016; pp. 178-183.</p> <p>Troni F., Concarì C., Toscani A., Buticchi G., Franceschini G., "Fault tolerant PWM generation with double-redundant logic"; 2014; Vocale Pamela, Pagliarini Giorgio, Rainieri Sara (2015). A MODIFIED HOURLY LOAD ESTIMATION METHOD APPLIED TO THE OPTIMAL SIZING OF CHP SYSTEMS. In: Proceedings ASME-ATI-UIT 2015 Conference on Thermal Energy Systems: Production, Storage, Utilization and the Environment. p. 1-6, ASME-ATI-UIT, 17 – 20 May, 2015, Napoli, Italy</p>
Ambiente	<p>Andreola F., Martín M.I., Ferrari A.M., Lancellotti I., Bondioli F., Rincón J.Ma., Romero M., Barbieri L; Technological properties of glass-ceramic tiles obtained using rice husk ash as silica precursor, 2013, <i>Ceramics Journal</i>, 39, 5427-5435.</p>

Azzoni R., Nizzoli D., Bartoli M., Christian R.R., Viaroli P., 2014. Factors controlling benthic biogeochemistry in urbanized coastal systems: an example from Venice (Italy). *Estuaries and Coast* 38:1016–1031 :

Azzoni R., Nizzoli D., Bartoli M., Christian R.R., Viaroli P., 2014. Factors controlling benthic biogeochemistry in urbanized coastal systems: an example from Venice (Italy). *Estuaries and Coast* 38:1016–1031 :

Beghè D., Fabbri A., Ganino T., 2016. Pomegranate: Botany, Histology and Genetic Resources. In *Pomegranate: Chemistry, Processing and Health Benefits*, pp. 1 – 26. Nova Publishers, New York. ISBN:978-1-63485-711-6

Beghè D., Ganino T., Dall'asta C., Silvanini A., Cirilini M., Fabbri A., 2013. Identification and characterization of ancient Italian chestnut using nuclear microsatellite markers. *Scientia Horticulturae* 164: 50-57

Beghè, D., Molano, J.F.G., Fabbri, A., Ganino, T., 2015. Olive biodiversity in Colombia. A molecular study of local germplasm. *Scientia Horticulturae*, 189: 122-131.

Benassi G., N. Zambelli, M. Villani, D. Calestani, M. Pavesi, A. Zappettini, L. Zanotti, C. Paorici, “*Oriented orthorhombic Lead Oxide film grown by vapour phase for X-ray detector applications*”, **2013**; *Cryst. Res. Technol.* 48 (4), 245-250

Bertani F., Riboni N., Bianchi F., Brancatelli G., Sterner E. S., Pinalli R., Geremia S., Swager T. M., Dalcanale E.; Triptycene-roofed quinoxaline cavitands for the supramolecular detection of BTEX in air; **2016**; *Chem. Eur. J.*; 22; 3312-3319

Bianchi F. Basini G. Grolli S. Conti V. Grasselli F. Careri M. Ramoni R. An Innovative Bovine Odorant Binding Protein-Based Filtering Cartridge for the Removal of Triazine Herbicides from Water; **2013**; *Anal Bioanal Chem, Special Issue Anal Chem in Italy*; 405; 1067-1075

Bianchi F. Bedini A. Riboni N. Pinalli R. Gregori A. S. Sidisky L. Dalcanale E. Careri M. Cavitand-based solid-phase microextraction coatings for the selective detection of nitroaromatic explosives in air and soil; **2014**; *Anal Chem*; 86; 10646-10652

Bianchi F. Bisceglie F. Dugheri S. Arcangeli G. Cupelli V. del Borrello E. Ongarato S. Sidisky L. Careri M. Ionic liquid-based solid phase necklaces for the environmental monitoring of ketamine; **2014**; *J. Chromatogr. A*; 1331;1 – 9

Bianchi F. Gregori A. Braun G. Crescenzi C. Careri M. Micro-solid-phase extraction coupled to desorption-high-resolution mass spectrometry for the analysis of explosives in soil; **2015**; *Anal Bioanal Chem*; 407; 931-938

Bianchi F., Bedini A., Riboni N., Pinalli R., Gregori A., Sidisky L., Dalcanale E., Careri M.; Cavitand-based solid-phase microextraction coatings for the selective detection of nitroaromatic explosives in air and soil; **2014**; *Anal. Chem.*; 86; 10646–10652

Bianchi F., Gregori A., Braun G., Crescenzi C., Careri M.; Micro solid-phase extraction coupled to desorption electrospray ionization-high resolution mass spectrometry for the analysis of explosives in soil; **2015**; *Anal. Bioanal. Chem.*; 407; 931-938

Bolpagni R., Bartoli M., Viaroli P., 2013. Species and functional plant diversity in a heavily impacted riverscape: implication for threatened hydro-hygrophylous flora conservation. *Limnologica* 43: 230-238.

Bolpagni R., Bresciani M., Laini A., Pinaridi M., Matta E., Ampe E.M., Giardino C., Viaroli P., Bartoli M., 2014. Remote sensing of phytoplankton-macrophyte coexistence in shallow hypereutrophic fluvial lakes. *Hydrobiologia* 737: 67-76. DOI: 10.1007/s10750-013-1800-6

Butera, I., Tanda, M.G., Zanini, A. Simultaneous identification of the pollutant release history and the source location in groundwater by means of a geostatistical approach (**2013**) *Stochastic Environmental Research and Risk Assessment*, 27 (5), pp. 1269-1280.

Calani L., Beghè D., Mena P., Del Rio D., Bruni R., Fabbri A., Dall'asta C., Galaverna G., 2013. Ultra-HPLC-MSn (poly)phenolic profiling and chemometric analysis of juices from ancient *Punica granatum* L. cultivars: A nontargeted approach. *Journal of Agricultural and Food Chemistry*, 61 (23): 5600-5609.

Canu D., Mocenni C., Mudge S., Murray N., Pejrup M., Razinkovas A., Reizopoulou S., Pérez-Ruzafa A., Schernewski G., Schubert H., Seeram L., Solidoro C., Viaroli P., Zaldivar J.M., 2013. An overview of ecological status, vulnerability and future perspectives of European large shallow, semi-enclosed coastal systems, lagoons and transitional waters. *Estuarine, Coastal and Shelf Science*, 140: 95-112.

Capra, Angelo Farina, Francesco Grani - "Urban Sounds": an acoustical tour of Parma - AIA_DAGA 2013 Conference, Meran, Italy, 18-21 March 2013

Castellari S., Venturini S., Ballarin Denti A., et al (a cura di.) (2014). *Rapporto sullo stato delle conoscenze scientifiche su impatti, vulnerabilità ed adattamento ai cambiamenti climatici in Italia*. Ministero dell'Ambiente e della Tutela del Territorio e del Mare, Roma. 878 p.

Castellari S., Venturini S., Ballarin Denti A., et al. (a cura di.) (2014). *Rapporto sullo stato delle conoscenze scientifiche su impatti, vulnerabilità ed adattamento ai cambiamenti climatici in Italia*. Ministero dell'Ambiente e della Tutela del Territorio e del Mare, Roma. 878 p.

Castellari S., Venturini S., Giordano F., et al. (2014). *Elementi per una Strategia Nazionale di Adattamento ai Cambiamenti Climatici*. Ministero dell'Ambiente e della Tutela del Territorio e del Mare, Roma.

Coisson E. Del Lesto S. Gherri B.; Sustainable Redevelopment of Public Spaces in City Centres: A Bioclimatic Approach; **2016**; *PROCEDIA ENGINEERING*; 161; 1852-1857

Cupola, F., Tanda, M.G., Zanini, A. Contaminant release history identification in 2-D heterogeneous aquifers through a minimum relative entropy approach (2015) *SpringerPlus*, 4 (1), art. no. 656, 19 p.

Cupola, F., Tanda, M.G., Zanini, A. Laboratory sandbox validation of pollutant source location methods (**2015**) *Stochastic Environmental Research and Risk Assessment*, 29 (1), pp. 169-182.

de Niederhäusern S., M. Bondi, F. Bondioli, Self-cleaning and antibacteric ceramic tile surface, 2013, *International Journal of Applied Ceramic Technology*, 10[6], 949-956.

Di Maida P., E. Radi, C. Sciancalepore, F. Bondioli, Pullout behavior of polypropylene macro-synthetic fibers treated with nano-silica, 2015, *Construction and building material*, 82, 39-44.

Fabbri A., 2015. Il ritorno dell'olivo in Emilia. *Frutticoltura*, LXVII, 9: 42-52.

Fabbri A., Failla O., Gambin E., Isocrono D., Parmegiani P., Giulivo C., 2013. Affinità e differenze delle olivicolture settentrionali. II Convegno Nazionale dell'olivo e dell'olio, Perugia, 21-23 settembre 2011. *ACTA ITALUS HORTUS* 10, 24-28.

Farina A, Lamberto Tronchin - 3D Sound Characterisation in Theatres Employing Microphone Arrays - *Acta Acustica united with Acustica*, vol. 99, n.1, pp. 118-125, ISSN 1610-1928, January/February 2013

Farina A., Andrea Capra, Alberto Amendola and Simone Campanini - Recording and playback techniques employed for the Urban Sounds project - 134th AES Convention, 2013 May 4-7 Rome, Italy

Farina, A. - From High Order Ambisonics to Spatial PCM Sampling – application to auralization of measurements and computer simulations - EPSRC funded workshop on numerical acoustic simulation and auralisation as built environment design consultation tools - Manchester (UK) 22-23 September 2015

Ferrari A.M., M. Pini, P. Neri, F. Bondioli, Nano-TiO₂ Coatings for Limestone: which Sustainability for Cultural Heritage?, 2015, *Coatings*, 5[3], 232-245.

Goffredo G.B., E. Quagliarini, F. Bondioli, P. Munafò, TiO₂ nano-coatings for Architectural Heritage: self-cleaning treatments on historical stone surfaces, 2014, *Journal of Nanoengineering and Nanosystems: Proceedings of the Institution of Mechanical Engineers, Part N*, Vol. 228(1) 2-10.

Giannetto M. Maiolini E. Ferri E. Girotti S. Mori G. Careri M. Competitive amperometric immunosensor based on covalent linking of a protein conjugate to dendrimer-functionalised nanogold substrate for the determination of 2,4,6-trinitrotoluene; **2013**; *Anal Bioanal Chem*; 405; 737-743

Giannetto M. Umiltà E. Careri M. New competitive dendrimer-based and highly selective immunosensor for determination of atrazine in environmental, feed and food samples: the importance of antibody selectivity for discrimination among related triazinic metabolite; **2014**; *Anal Chim Acta* 806; 197-203

Gzyl, G., Zanini, A., Fraćzek, R., Kura, K. Contaminant source and release history identification in groundwater: A multi-step approach (2014) *Journal of Contaminant Hydrology*, 157, pp. 59-72.

Graziani L., E. Quagliarini, F. Bondioli, M. D'Orazio, Durability of self-cleaning TiO₂ coatings on fired clay brick façades: effects of UV exposure and wet & dry cycles, 2014, *Building and Environment*, 71, 193-203.

Laini A., Vorti A., Bolpagni R., Viaroli P., 2014. Small-scale variability of benthic macroinvertebrates distribution and its effects on biological monitoring. *Annales de Limnologie- International Journal of Limnology* 50: 211-216. DOI: 10.1051/limn/20140001

Laini A., Vorti A., Bolpagni R., Viaroli P., 2014. Small-scale variability of benthic macroinvertebrates distribution and its effects on biological monitoring. *Annales de Limnologie- International Journal of Limnology* 50: 211-216. DOI: 10.1051/limn/20140001

Longhi D., Bartoli M., Nizzoli D., Laini A., Viaroli P., 2016. Do oxic–anoxic transitions constrain organic matter mineralization in eutrophic freshwater wetlands? *Hydrobiologia* 744

Longhi D., Bartoli M., Nizzoli D., Viaroli P., 2013. Benthic processes in fresh water fluffy sediments undergoing resuspension. *Journal of Limnology* 71: 1-12.

Mattarozzi M. Careri M. Liquid Chromatography/Mass Spectrometry in Environmental Analysis, *Encyclopedia of Analytical Chemistry*, 2015; 1–41. Update based on the original article by Careri M., *Encyclopedia of Analytical Chemistry*, © 2000, John Wiley & Sons, Ltd.

Mattarozzi M., Bianchi F., Milioli M., Cavazza A., Careri M.; An innovative method based on quick, easy, cheap, effective, rugged, and safe extraction coupled to desorption electrospray ionization-high resolution mass spectrometry for screening the presence of paralytic shellfish toxins in clams; 2016; *Talanta*; 147; 416-421

Mattarozzi M., Milioli M., Bianchi F., Cavazza A., Pigozzi S., Milandri A., Careri M.; Optimization of a rapid QuEChERS sample treatment method for HILIC-MS² analysis of paralytic shellfish poisoning (PSP) toxins in mussels; 2016; *Food Control*; 60; 138-145

Morrone, L., Dall'asta, C., Silvanini, A., Cirliani, M., Beghè, D., Fabbri, A., Ganino, T., 2015. The influence of seasonality on total fat and fatty acids profile, protein and amino acid, and antioxidant properties of traditional Italian flours from different chestnut cultivars. *Scientia Horticulturae*, 192: 132-140.

Mokhothu T.H., A.S. Luyt, D. Morselli, F. Bondioli and M. Messori, Influence of in situ-generated silica nanoparticles on EPDM morphology, thermal, thermomechanical, and mechanical properties, 2015, *Polymer Composites*, 36[5], 825–833.

Munafò P., E. Quagliarini, G.B. Goffredo, F. Bondioli, A. Licciulli, Durability of nano-engineered TiO₂ self-cleaning treatments on limestone, 2014, *Construction and Building Materials*, 65, 218–231.

Newton A., Icely J., Cristina S., et al., 2014. Influence of *Potamogeton pectinatus* and microphytobenthos on benthic metabolism in a freshwater littoral sediment in an agricultural landscape: N assimilation vs N removal. *Hydrobiologia* 737:183–200.

Paciulli M., Ganino T., Pellegrini N., et al., 2015. Impact of the industrial freezing process on selected vegetables - Part I. Structure, texture and antioxidant capacity. *Food Research International*, 74: 329-377.

Pinardi M., Rossetto M., Viaroli P., Bartoli M., 2014. Daily and seasonal variability of CO₂ saturation and evasion in a free flowing and in a dammed river reach. *Journal of Limnology* 73: 468-481.

Pini M., R. Rosa, P. Neri, F. Bondioli, A.M. Ferrari, Environmental assessment of a bottom-up hydrolytic synthesis of TiO₂ nanoparticles, 2015, *Green Chemistry*, 17, 518-31.

Quagliarini E., F. Monni, F. Bondioli, S. Lenci, Basalt fiber ropes and rods: durability tests for their use in building engineering, 2016, *Journal of Building Engineering*, 5, 142-150.

Quagliarini E., S. Lenci, Q. Piattoni, F. Bondioli, I. Bernabei, G. Lepore, M. Zaccaria, Experimental analysis of romaneseque masonries made by tile and brick fragments found at the archaeological site of S. Maria in Portuno, 2014, *International Journal of Architectural Heritage*, 8[2], 161-184.

	<p>Quagliarini E., Bondioli F, Goffredo GB., Licciulli A., Munafò P; Self-cleaning materials on Architectural Heritage: Compatibility of photo-induced hydrophilicity of TiO₂ coatings on stone surfaces, 2013, <i>J Cul Heritage</i>, 14, 1-7.</p> <p>Riboni N. Trzcinski J.W. Bianchi F. Massera C. Pinalli R. Sidisky L. Dalcanale E. Careri M. Conformationally blocked quinoxaline cavitand as solid-phase microextraction coating for the selective detection of BTEX in air; 2016; <i>Anal Chim Acta</i>; 905; 79-84</p> <p>Ronchin L., Andrea Venturi, Angelo Farina - Subjective evaluations in virtual environments - AIA_DAGA 2013 Conference, Meran, Italy, 18-21 March 2013</p> <p>Segadelli, S., Vescovi, P., Ogata, K., Chelli, A., Zanini, A., Boschetti, T., Petrella, E., Toscani, L., Gargini, A., Celico, F. A conceptual hydrogeological model of ophiolitic aquifers (serpentinised peridotite): The test example of Mt. Prinzera (Northern Italy) (2016) <i>Hydrological Processes</i></p> <p>Silvanini, A., Dall'asta, C., Morrone, L., Cirilini, M., Beghè, D., Fabbri, A., Ganino, T., 2014. Altitude effects on fruit morphology and flour composition of two chestnut cultivars. <i>Scientia Horticulturae</i>, 176: 311-318.</p> <p>Soana E., Naldi M., Bonaglia S., Racchetti E., Castaldelli G., Brüchert V., Viaroli P., Bartoli M., 2015. Benthic nitrogen metabolism in a macrophyte meadow (<i>Vallisneria spiralis</i> L.) under increasing sedimentary organic matter loads. <i>Biogeochemistry</i> 124: 387–404. DOI 10.1007/s10533-015-0104-5</p> <p>Sciancalepore C., F. Bondioli, Durability of photocatalytic coating on ceramic tiles, 2015, <i>International Journal of Applied Ceramic Technology</i>, 12 [3] 679–684.</p> <p>Taurino R., L. Barbieri, F. Bondioli, Surface properties of new green building material after TiO₂-SiO₂ coatings deposition, 2016, <i>Ceramics International</i>, 42[4], 4866–4874.</p> <p>Viaroli P., 2013. Cambiamenti globali e pressioni locali: tendenze evolutive e problemi inediti negli ecosistemi delle acque interne. <i>Biologia Ambientale</i> 27: 45-53.</p> <p>Viaroli P., Bartoli M., Castaldelli G., Naldi M., Nizzoli D., Rossetti G., 2013. Recent evolution and expected changes of nutrient loads in a heavily exploited watershed: the Po River, Italy. In Arheimer B., Collins A., Krysanova V., Lakshmanan E., Meybeck M., Stone M. (eds) <i>Understanding Freshwater Quality Problems in a Changing World</i>. IAHS Publ. 361: 176-182.</p> <p>Viaroli P., Nizzoli D., Pinardi M., Rossetti G., Bartoli M., 2013. Factors affecting dissolved silica concentrations, and DSI and DIN stoichiometry in a human impacted watershed (Po River, Italy). <i>Silicon</i>, 5: 101-114.</p> <p>Viaroli P., Nizzoli D., Pinardi M., Soana E., Bartoli M., 2015. Eutrophication of the Mediterranean Sea: a watershed—cascading aquatic filter approach. <i>Rendiconti Fisica Accademia Lincei</i>, 26:13–23.</p> <p>Welsh D.T., Nizzoli D., Fano E.A., Viaroli P., 2015. Direct contribution of clams (<i>Ruditapes philippinarum</i>) to benthic fluxes, nitrification, denitrification and nitrous oxide emission in a farmed sediment. <i>Estuarine, Coastal and Shelf Science</i> 154: 84-93.</p> <p>Zanini, A., Woodbury, A.D. Contaminant source reconstruction by empirical Bayes and Akaike's Bayesian Information Criterion (2016) <i>Journal of Contaminant Hydrology</i>, 185-186, pp. 74-86.</p>
Economia	<p>Arfini F., Donati M. (2013). Organic Production and the Capacity to Respond to Market Signals and Policies: An Empirical Analysis of a Sample of FADN Farms. <i>AGROECOLOGY AND SUSTAINABLE FOOD SYSTEMS</i>, vol. 37, p. 149-171</p> <p>Donati M., Bodini D., Arfini F., Zezza A. (2013). An integrated PMP model to assess the development of agro-energy crops and the effect on water requirements. <i>BIO-BASED AND APPLIED ECONOMICS</i>, vol. 2, p. 301-321</p> <p>Donati M., Menozzi D., Zighetti C.a, Rosi A., Zinetti A., Scazzina F. (2016). Towards a sustainable diet combining economic, environmental and nutritional objectives. <i>APPETITE</i>, vol. 106, p. 48-57</p>

	<p>Mambriani C. Coisson E. Fadda E.; The management of vulnerabilities in cultural heritage: a possible model to parametrize the intervention priorities; 2014; In: BEST PRACTICES IN HERITAGE CONSERVATION AND MANAGEMENT: FROM THE WORLD TO POMPEII; 193-202.</p> <p>Menozzi D., Fioravanti M., Donati M. (2015). Farmer's motivation to adopt sustainable agricultural practices. BIOBASED AND APPLIED ECONOMICS, vol. 4, p. 125-147</p> <p>Solazzo R., Donati M., Arfini F. (2015). Impact assessment of greening and the issue of nitrogen-fixing crops: Evidence from northern Italy. OUTLOOK ON AGRICULTURE, vol. 44, p. 215-222</p> <p>Solazzo R., Donati M., Tomasi L., Arfini F. (2016). How effective is greening policy in reducing GHG emissions from agriculture? Evidence from Italy. SCIENCE OF THE TOTAL ENVIRONMENT, vol. 573, p. 1115-1124</p>
<p>Acquisizione ed elaborazione dati</p>	<p>Abbruzzetti, S.; Spyraakis, F.; Bidon-Chanal, A.; Luque, F. J.; Viappiani, C. Ligand migration through heme protein cavities: insights from laser flash photolysis and molecular dynamics simulations 2013 Physical Chemistry Chemical Physics, 15, 10686-10701.</p> <p>Boron, I.; Capece, L.; Pennacchietti, F.; Wetzler, D. E.; Bruno, S.; Abbruzzetti, S.; Chisari, L.; Luque, F. J.; Viappiani, C.; Marti, M. A.; Estrin, D. A.; Nadra, A. Engineered chimeras reveal the structural basis of hexacoordination in globins: A case study of neuroglobin and myoglobin 2015 Biochimica et Biophysica Acta (BBA) - General Subjects, 1850, 169–177.</p> <p>Bustamante, J. P.; Abbruzzetti, S.; Marcelli, A.; Gauto, D.; Boechi, L.; Bonamore, A.; Boffi, A.; Bruno, S.; Feis, A.; Foggi, P.; Estrin, D. A.; Viappiani, C. Ligand Uptake Modulation by Internal Water Molecules and Hydrophobic Cavities in Hemoglobins 2014 The Journal of Physical Chemistry B, 118, 1234–1245.</p> <p>Citarella, D., Cupola, F., Tanda, M.G., Zanini, A. Evaluation of dispersivity coefficients by means of a laboratory image analysis (2015) Journal of Contaminant Hydrology, 172, pp. 10-23.</p> <p>Coisson E. Ferretti D. Lenticchia E.; Italian castles and earthquakes: a GIS for knowledge and preservation; 2016; In: Structural Analysis of Historical Constructions - Anamnesys, diagnosis, therapy, control.</p> <p>Comas-Barceló, J.; Rodríguez-Amigo, B.; Abbruzzetti, S.; Rey-Puech, P. d.; Agut, M.; Nonell, S.; Viappiani, C. A self-assembled nanostructured material with photosensitising properties 2013 RSC Advances, 3, 17874-17879.</p> <p>Coppola, D.; Giordano, D.; Abbruzzetti, S.; Marchesani, F.; Balestrieri, M.; di Prisco, G.; Viappiani, C.; Bruno, S.; Verde, C. Functional characterisation of the haemoglobins of the migratory notothenioid fish <i>Dissostichus eleginoides</i> 2015 Hydrobiologia, 761, 315-333.</p> <p>Decaneto, E.; Abbruzzetti, S.; Heise, I.; Lubitz, W.; Viappiani, C.; Knipp, M. A caged substrate peptide for matrix metalloproteinases 2015 Photochemical & Photobiological Sciences, 14, 300-307.</p> <p>Delcanale, P.; Montali, C.; Rodriguez-Amigo, B.; Abbruzzetti, S.; Bruno, S.; Bianchini, P.; Diaspro, A.; Agut, M.; Nonell, S.; Viappiani, C. Zinc-Substituted Myoglobin Is a Naturally Occurring Photo-antimicrobial Agent with Potential Applications in Food Decontamination 2016 Journal of Agricultural and Food Chemistry, 64, 8633–8639.</p> <p>Delcanale, P.; Pennacchietti, F.; Maestrini, G.; Rodríguez-Amigo, B.; Bianchini, P.; Diaspro, A.; Iagatti, A.; Patrizi, B.; Foggi, P.; Agut, M.; Nonell, S.; Abbruzzetti, S.; Viappiani, C. Subdiffraction localization of a nanostructured photosensitizer in bacterial cells 2015 Scientific Reports, 5, 15564.</p> <p>Delcanale, P.; Rodriguez Amigo, B.; Juarez-Jimenez, J.; Luque, J.; Abbruzzetti, S.; Agut, M.; Nonell, S.; Viappiani, C. Tuning the local solvent composition at a drug carrier surface: Effect of dimethyl sulfoxide/water mixture on the photofunctional properties of hypericin-β-lactoglobulin. 2017. Journal of Materials Chemistry B</p> <p>Farina A.- Principi di analisi numerica dei segnali - Capitolo nel volume ACUSTICA Fondamenti e applicazioni – UTET Università, Torino, 2015 – ISBN 9788860084460</p>

Farina Angelo, Alberto Amendola, Lorenzo Chiesi, Andrea Capra, Simone Campanini - Spatial Pcm Sampling: A New Method For Sound Recording And Playback - AES 52nd International Conference, Guildford, UK, 2013 September 2–4

Farina Angelo, Leonardo Scopece - Method for acquiring audio signals, and audio acquisition system thereof - US Patent # 8965004, 2015

Farina Angelo, Lorenzo Chiesi - A novel 32-speakers spherical source - 140th AES Conference, Paris (France) 4-7 June 2016

Farina Angelo, Lorenzo Chiesi - Measuring Spatial MIMO Impulse Responses in Rooms Employing Spherical Transducer Arrays - AES Conference on Sound Field Control, Guildford (UK), 18-20 July 2016

Farina Angelo, Simone Campanini, Lorenzo Chiesi, Alberto Amendola, Lorenzo Eberi - Spatial Sound Recording With Dense Microphone Arrays - AES 55th International Conference, Helsinki, Finland, 2014 August 27–29

Gabba, M.; Abbruzzetti, S.; Bruno, F. S. S.; Mozzarelli, A.; Luque, F. J.; Viappiani, C.; Cozzini, P.; Nardini, M.; Germani, F.; Bolognesi, M.; Moens, L.; Dewilde, S. CO rebinding kinetics and molecular dynamics simulations highlight dynamic regulation of internal cavities in human cytoglobin 2013 PLoS ONE, 8, e49770.

Galstyan, A.; Block, D.; Niemann, S.; Grüner, M. C.; Abbruzzetti, S.; Oneto, M.; Daniliuc, C. G.; Hermann, S.; Viappiani, C.; Schäfers, M.; Löffler, B.; Strassert, C. A.; Faust, A. Labeling and Selective Inactivation of Gram-Positive Bacteria. 2016. Employing Bimodal Photoprobes with Dual Readouts Chemistry – A European Journal, 22, 5243-5252.

Garziera R. , A. Farina, S. Carra, L. Chiesi - Use of Advanced Signal Processing Methods for Measuring Vibrations of Loudspeaker Membranes with a Laser Doppler Vibrometer - Measuring by Light, November 18-19, 2015 - Rijswijk, The Netherlands

Henry, Eric R.; Mozzarelli, A.; Viappiani, C.; Abbruzzetti, S.; Bettati, S.; Ronda, L.; Bruno, S.; Eaton, William A. Experiments on Hemoglobin in Single Crystals and Silica Gels Distinguish among Allosteric Models 2015 Biophysical journal, 109, 1264-1272.

Knipp, M.; Ogata, H.; Soavi, G.; Cerullo, G.; Allegri, A.; Abbruzzetti, S.; Bruno, S.; Viappiani, C.; Bidon-Chanal, A.; Luque, F. J. Structure and dynamics of the membrane attaching nitric oxide transporter nitrophorin 7 [v1; ref status: indexed] 2015 F100 Research, 4, 45.

Lamberto Tronchin, Andrea Venturi, Angelo Farina, Amendola Alberto - Implementing a spherical microphone array to determine 3D sound propagation in the 'Teatro 1763' in Bologna, Italy - International Symposium on Room Acoustics - Toronto, June 9-11, 2013

Losi, A.; Gärtner, W.; Raffelberg, S.; Znacchi, F. C.; Bianchini, P.; Diaspro, A.; Mandalari, C.; Abbruzzetti, S.; Viappiani, C. A photochromic bacterial photoreceptor with potential for super-resolution microscopy 2013 Photochemical and Photobiological Sciences, 12, 231–235.

Oliveira, A.; Allegri, A.; Bidon-Chanal, A.; Knipp, M.; Roitberg, A. E.; Abbruzzetti, S.; Viappiani, C.; Luque, F. J. Kinetics and computational studies of ligand migration in nitrophorin 7 and its D1-3 mutant 2013 Biochimica et Biophysica Acta - Proteins and Proteomics, 1834, 1711-1721.

Pennacchiotti, F.; Abbruzzetti, S.; Losi, A.; Mandalari, C.; Bedotti, R.; Viappiani, C.; Znacchi, F. C.; Diaspro, A.; Gärtner, W. The dark recovery rate in the photocycle of the bacterial photoreceptor YtvA is affected by the cellular environment and by hydration 2014 PLoS ONE, 9, e107489.

Pennacchiotti, F.; Losi, A.; Xu, X.; Zhao, K.; Gärtner, W.; Viappiani, C.; Znacchi, F. C.; Diaspro, A.; Abbruzzetti, S. Photochromic conversion in a red/green cyanobacteriochrome from Synechocystis PCC6803: quantum yields in solution and photoswitching dynamics in living E.coli cells 2015 Photochemical & Photobiological Sciences, 14, 229-237.

Piacentini G., N. Zambelli, G. Benassi, D. Calestani, M. Pavesi, and A. Zappettini, “Two-step thermal process in tellurium vapor for tellurium inclusion annealing in high resistivity CdZnTe crystals”; 2015; J. Cryst. Growth 415, 15-19

Raffelberg, S.; Gutt, A.; Gärtner, W.; Mandalari, C.; Abbruzzetti, S.; Viappiani, C.; Losi, A. The amino acids surrounding the flavin 7a-methyl group determine the UVA spectral features of a LOV protein 2013 Biological Chemistry, 394, 1517–1528.

Rodríguez-Amigo, B.; Delcanale, P.; Rotger, G.; Juárez-Jiménez, J.; Abbruzzetti, S.; Summer, A.; Agut, M.; Luque, F. J.; Nonell, S.; Viappiani, C. The complex of hypericin with b-lactoglobulin has antimicrobial activity with perspective applications in dairy industry 2015 Journal of Dairy Science, 98, 89–94.

Ronda, L.; Bruno, S.; Campanini, B.; Mozzarelli, A.; Abbruzzetti, S.; Viappiani, C.; Cupane, A.; Levantino, M.; Bettati, S. Immobilization of Proteins in Silica Gel: Biochemical and Biophysical Properties 2015 *Current Organic Chemistry*, 19, 1653-1668.

Santi A., M. Zanichelli, G. Piacentini, M. Pavesi, A. Cola, and I. Farella, "An original method to evaluate the transport parameters and reconstruct the electric field in solid-state photodetectors", 2014; *Appl. Phys. Lett.* 104(19), 193503 4pp.

Tilleman, L.; Abbruzzetti, S.; Ciaccio, C.; De Sanctis, G.; Nardini, M.; Pesce, A.; Desmet, F.; Moens, L.; Van Doorslaer, S.; Bruno, S.; Bolognesi, M.; Ascenzi, P.; Coletta, M.; Viappiani, C.; Dewilde, S. Structural Bases for the Regulation of CO Binding in the Archaeal Protoglobin from *Methanosarcina acetivorans* 2015 *PLoS ONE*, 10, e0125959.

Viappiani, C.; Abbruzzetti, S.; Ronda, L.; Bettati, S.; Henry, E. R.; Mozzarelli, A.; Eaton, W. A. Experimental basis for a new allosteric model for multisubunit proteins 2014 *Proceedings of the National Academy of Science USA*, 111, 12758-12763.

Venturi A, Angelo Farina and Lamberto Tronchin - On the effects of pre-processing of impulse responses in the evaluation of acoustic parameters on room acoustics - *Proceedings of Meetings on Acoustics*, vol. 19, pp. 015006 (June 2013); (9 pages) - ISSN 1939-800X DOI:10.1121/1.4800277

Zanichelli M., A. Santi, M. Pavesi, and A. Zappettini, "Charge collection in semi-insulator radiation detectors in the presence of a linear decreasing electric field", 2013; *J. Phys. D: Appl. Phys.* 46, 365103 (9pp)

Zappettini A., N. Zambelli, G. Benassi, D. Calestani, and M. Pavesi, "Live-monitoring Te inclusions laser-induced thermo-diffusion and annealing in CdZnTe crystals", 2014; *Appl. Phys. Lett.* 104(25), 252105 4 pp.