

GS 2015

Parma, 15-17 Giugno 2015

in memoria di Marco Mascini

Lunedì 15 Giugno

14:00 *Registrazione apertura dei lavori*

14:30 *Saluti del Magnifico Rettore*

Apertura dei lavori

M. Careri, F. Baldini, G. Palleschi, R. Seeber

15:00 - 18:30	SISTEMI: SENSORI E BIOSENSORI OTTICI CHAIR: G. PALLESCHI
15:00 - 15:40	Invited lecture PCR-FREE DETECTION OF GENOMIC DNA BY SURFACE PLASMON RESONANCE IMAGING G. Spoto
15:45 - 16:00	ULTRASENSITIVE AND MINIATURIZED BIOSENSOR USING ORGANICALLY MODIFIED SILICA NANOPARTICLES DOPED WITH NEW ACRIDINE-1,2- DIOXETANE DERIVATIVES AS THERMOCHEMILUMINESCENT REAGENTLESS LABELS <u>M. Di Fusco</u> , A. Quintavalla, M. Lombardo, M. Guardigli, M. Mirasoli, L.A. Andronico, C. Trombini, A. Roda
16:00 - 16:15	ULTRA-SENSITIVE FLOW-THROUGH OPTOFLUIDIC MICRORESONATORS FOR BIOSENSING APPLICATIONS L.M. Strambini, S. Mariani, S. Berneschi, A. Giannetti, G. Nunzi Conti, F. Baldini, A. Turco, C. Malitesta, E. Mazzotta, G. Testa, R. Bernini, L. Tedeschi, C. Domenici, <u>G. Barillaro</u>
16:15 - 16:30	MATRIX ASSISTED PULSED LASER EVAPORATION FOR LACCASE BASED BIOSENSORS N. Cicco, A. Morone, M. Verrastro, M. Dinescu, A. Matei, F. Favati, <u>D. Centonze</u>

16:30 - 16:45	MICRORING RESONATOR PLATFORM BASED ON FLOW-THROUGH APPROACH <u>I.A. Grimaldi</u> , G. Testa, G. Persichetti, R. Bernini
16:45 - 17:00	<i>Coffee Break</i>
17:00 - 17:30	Key-note SMART (CELL) ² PHONES AS TOXICITY BIOSENTINELS L. Cevenini
17:30 - 17:45	MOLECULAR BEACON SPECIFIC FOR SURVIVIN mRNA DELIVERED IN CELLS BY PMMA-NANOPARTICLES <u>B. Adinolfi</u> , F. Baldini, A. Giannetti, M. Pellegrino, G. Sotgiu, S. Tombelli, C. Trono, G. Varchi
17:45 - 18:00	PHOTOLUMINESCENCE ZnO NWs AS A QUANTITATIVE SENSING TOOL FOR MOLECULAR BIORECOGNITION J. Politi, M. Giofrè, I. Rea, P. Dardano, <u>L. De Stefano</u>
18:00 - 18:15	HIGHLY SENSITIVE LOCALIZED SURFACE PLASMON RESONANCE SENSOR BASED ON MOLECULARLY IMPRINTED POLYMERS AND GOLD NANOSTARS <u>M. Pesavento</u> , N. Cennamo, P. Pallavicini, A. Profumo, D. Merli, L. Zeni
18:15 - 18:30	COMPARATIVE ANALYSIS OF LONG PERIOD GRATINGS-BASED LABEL-FREE BIOSENSORS <u>C. Trono</u> , F. Chiavaioli, P. Biswas, S. Bandyopadhyay, A. Giannetti, S. Tombelli, S. Jana, N. Basumallick, S. Bera, A. Mallick, F. Baldini
18:30 - 19:30	Assemblea del Gruppo Interdivisionale Sensori

Martedì 16 Giugno

9:00 - 11:00	APPLICAZIONI: SENSORI E BIOSENSORI PER LA DIAGNOSTICA CLINICA E IL <i>POINT-OF-CARE TESTING</i> CHAIR: G. MARRAZZA
9:00 - 9:30	Key-note LOW COST AND SMART DIAGNOSTIC PLATFORMS FOR CHEMICAL ANALYSIS S. Selleri

9:30 - 9:45	A NEW SMARTPHONE-BASED BIOSENSOR FOR QUANTITATIVE CHEMILUMINESCENT-LATERAL FLOW IMMUNOASSAY <u>M. Zangheri</u>, L. Cevenini, L. Anfossi, C. Baggiani, P. Simoni, F. Di Nardo, A. Roda
9:45 - 10:00	DRUGS DELIVERY MICRONEEDLES PATCH CONTROLLED BY POROUS SILICON MEMBRANE <u>P. Dardano</u>, J. Politi, A. Calì, I. Rea, L. De Stefano
10:00 - 10:15	BIOSENSING WITH ORGANIC TRANSISTORS FOR DRUG DELIVERY AND IN-VITRO DIAGNOSTICS <u>G. Tarabella</u>, A. Romeo, P. D'Angelo, S. Iannotta
10:15 - 10:30	LABEL-FREE IMPEDIMETRIC GENOSENSOR BASED ON CONDUCTING POLYMER FOR miRNA DETECTION D. Voccia, M. Sosnovska, F. Bettazzi, W. Kutner, <u>I. Palchetti</u>
10:30 - 10:45	AN INNOVATIVE IMMUNOSENSOR FOR CO-DETERMINATION OF HUMAN IMMUNE DEFICIENCY (HIV) AND HEPATITIS C (HCV) VIRUSES SERUM BIOMARKERS <u>M. Costantini</u>, M. Giannetto, M. Careri
10:45 - 11:00	CONTINUOUS THERAPEUTIC DRUG MONITORING AND SEPSIS BIOMARKERS DETECTION USING THE POCT FORMAT: THE NANODEM AND HEMOSPEC EUROPEAN PROJECTS B. Adinolfi, C. Berrettoni, S. Berneschi, R. Bernini, F. Chiavaioli, C. Gartner, A. Giannetti, I.A. Grimaldi, J. Eugen-Olsen, G. Persichetti, G. Porro, G. Testa, <u>S. Tombelli</u>, C. Trono, F. Baldini
11:00 - 11:30	<i>Coffee Break</i>

11:30 - 13:00	Tavola rotonda <i>Sensoristica e progettualità in ambito europeo: opportunità di ‘fare rete’</i> <i>Coordinano</i> M. Careri, R. Seeber <i>Partecipano</i> - P. Bianchi, <i>Assessore a “Coordinamento delle politiche europee allo sviluppo, scuola, formazione professionale, università, ricerca e lavoro”, Regione Emilia-Romagna</i> - F. Baldini, <i>CNR-IFAC Firenze, Presidente SIOF</i> - M. De Sole, <i>APRE - Agenzia per la Promozione della Ricerca Europea, NCP Nanotecnologie, Materiali e nuovi Processi di produzione</i> - C. Di Natale, <i>Università di Roma Tor Vergata, Presidente AISEM</i> - S. Iannotta, <i>Direttore CNR- IMEM Parma</i> - G. Palleschi, <i>Università di Roma Tor Vergata, Presidente Divisione di Chimica Analitica SCI</i> - S. Selleri, <i>Università di Parma, Chair IEEE Photonics Society Italy Chapter</i> - P.A. Siciliano, <i>CNR-IMM Lecce</i> - R. Zamboni, <i>Direttore CNR-ISOF Bologna, Fellow SPIE</i>
13:00 - 14:30	<i>Lunch</i>
14:30 - 15:30	Gruppo di lavoro <i>Sensoristica e imprenditorialità: start-up e spin-off</i> <i>Coordinano</i> E. Dalcanale, M. Giannetto, A. Zappettini <i>Introducono</i> A. Candiani, <i>DNAPhone s.r.l.</i> R. Pinalli, <i>Soatec srl Università di Parma</i> F. Terzi, <i>DELPROSENS s.r.l., Università di Modena e Reggio Emilia</i> - <i>Discussione</i> -

15:30 – 17:00	SISTEMI: SENSORI ELETTROCHIMICI CHAIR: R. SEEBER
15:30 - 16:00	Key-note SELF-CLEANING FEATURES OF AN INNOVATIVE ENGINEERED SENSOR BASED ON SILICA, SILVER NANOPARTICLES AND TITANIA V. Pifferi
16:00 - 16:15	SCREEN-PRINTED ELECTRODES MODIFIED WITH CARBON NANOMATERIALS: A CHALLENGE AMONG CARBON BLACK, CARBON NANOTUBES AND GRAPHENE <u>F. Arduini</u>, S. Cinti, M. Carbone, L. Sansone, I. Cacciotti, D. Moscone, G. Palleschi
16:15 - 16:30	DEVELOPMENT OF NOVEL ELECTRODE COATINGS BASED ON POLY(2-HYDROXYETHYL-METHACRYLATE) <u>C. Zanardi</u>, G. Maccaferri, M. Degli Esposti, L. Pigani, P. Fabbri, R. Seeber
16:30 - 16:45	ENANTIORECOGNITION TOWARDS L- AND D-DOPA ON EASY-TO-PREPARE INHERENTLY CHIRAL FILM ELECTRODES <u>S. Arnaboldi</u>, P.R. Mussini, F. Sannicolò, T. Benincori, A. Penoni
16:45 - 17:00	A NOVEL REAL-TIME MEDIATOR-FREE, NON-ENZYMATIC ELECTROCHEMICAL BIOSENSOR FOR GLUTAMMATE DETECTION Y.P. Yang, <u>A. Manfredi</u>, M. Careri, S. Daunert
17:00 - 17:30	<i>Coffee Break</i>
17:30 - 18:30	SISTEMI: SENSORI ELETTROCHIMICI - RACCOLTA ED ELABORAZIONE DI SEGNALI E DATI CHAIR: D. COMPAGNONE
17:30 - 17:45	ALL-PEDOT ORGANIC ELECTROCHEMICAL TRANSISTOR AS A SENSOR FOR ASCORBIC ACID <u>I. Gualandi</u>, M. Marzocchi, E. Scavetta, M. Calienni, A. Bonfiglio, B. Fraboni
17:45 - 18:00	"INHERENTLY CHIRAL" ELECTRODES: TOOLS FOR CHIRAL VOLTAMMETRY AND ENANTIOMERIC EXCESS EVALUATION <u>P.R. Mussini</u>, S. Arnaboldi, F. Sannicolò, R. Martinazzo, T. Benincori, R. Cirilli
18:00 - 18:15	MESOSCOPIC STRUCTURES AS NEW PLATFORMS FOR SENSING M. Caruso, E. Gatto, R. Lettieri, D. Monti, <u>M. Venanzi</u>

18:15 - 18:30	HYPERSENSPECTROGRAMS-GUI: A GRAPHICAL USER INTERFACE FOR FAST EXPLORATION OF DATASETS OF HYPERSENSPECTRAL IMAGES C. Ferrari, R. Calvini, G. Foca, <u>A. Ulrici</u>
20:00	<i>Cena Sociale</i>

Mercoledì 17 Giugno

9:00 - 13:00	APPLICAZIONI: SENSORI E BIOSENSORI PER LA SICUREZZA E QUALITÀ ALIMENTARE - SENSORI E RETI DI SENSORI IN CAMPO FORENSE E PER LA SORVEGLIANZA DI AREE CRITICHE (<i>SECURITY</i>) CHAIR: F. BALDINI
9:00 - 9:40	Invited lecture SILICON OPTICAL MICROSYSTEMS FOR LABEL-FREE BIOSENSING: THE CASE OF PHOTONIC CRYSTALS G. Barillaro
9:45 - 10:00	CAVITAND-GRAFTED SILICON MICROcantilevers AS UNIVERSAL PROBE FOR ILlicit AND DESIGNER DRUGS IN WATER <u>E. Biavardi</u> , S. Federici, C. Tudisco, D. Menozzi, C. Massera, A. Sottini, G.G. Condorelli, P. Bergese, E. Dalcanale
10:00 - 10:15	DETERMINATION OF ASCORBIC ACID AND PHENOLS RELATIVE CONTRIBUTION TO ANTIOXIDANT ACTIVITY IN FRUIT JUICES BY DIFFERENT SENSOR-BIOSENSOR SYSTEMS <u>A. Barberis</u> , Y. Spissu, A. Fadda, E. Azara, G. Bazzu, S. Marceddu, A. Angioni, D. Sanna, M. Schirra, P.A. Serra
10:15 - 10:30	Co/Al LAYERED DOUBLE HYDROXIDE COATED ELECTRODE FOR IN FLOW AMPEROMETRIC DETECTION OF SUGARS I. Gualandi, E. Scavetta, Y. Vlamidis, A. Casagrande, <u>D. Tonelli</u>
10:30 - 10:45	STRATEGIES FOR THE DETERMINATION OF MERCURY TRACES WITH CARBON PASTE-BASED SENSORS <u>O. Abollino</u> , A. Giacomino, M. Malandrino, M. Barbero, D. Seia, R. Toniolo
10:45 - 11:00	DETERMINATION OF CAFFEINE @ GOLD NANOPARTICLES MODIFIED GOLD (Au) ELECTRODE <u>A. Curulli</u> , A. Trani, D. Zane, R. Petrucci, G. Marrosu

11:00 - 11:15	<i>Coffee Break</i>
11:15 - 11:30	NEW FAST AND EASY METHOD FOR THE MONITORING OF Hg CONCENTRATION IN FISH PRODUCTS, USING A GLASSY CARBON ELECTRODE MODIFIED WITH Au NANOPARTICLES <u>A. Giacomino</u>, M. Malandrino, S. Berto, E. Chiavazza, O. Abollino
11:30 - 11:45	A SUPRAMOLECULAR APPROACH TO THE DETECTION OF NITROAROMATIC EXPLOSIVES AND NERVE GAS <u>R. Pinalli</u>, A. Bedini, N. Riboni, F. Bianchi, M. Careri, E. Dalcanele
11:45 - 12:00	ENZYME-FREE JANUS PARTICLES ACCELERATED DEGRADATION AND DETECTION OF ORGANOPHOSPHOROUS NERVE AGENTS USING SPE: A PROOF OF CONCEPT APPROACH <u>S. Cinti</u>, G. Valdés-Ramírez, W. Gao, J. Li, G. Palleschi, J. Wang
12:00 - 12:15	ETHANOL AND METHANOL MEASUREMENT USING CATALYTIC DIRECT FUEL CELL: APPLICATION TO ETHANOL DETERMINATION IN WINES AND BEERS SAMPLES <u>M. Tomassetti</u>, G. Merola, R. Angeloni, L. Campanella
12:15 - 12:30	TEXTILE ORGANIC BIOSENSORS FOR HUMAN PHYSIOLOGICAL MONITORING <u>N. Coppedè</u>, M. Villani, E. Battista, V. Lettera, D. Delmonte, D. Calestani, M. Bettelli, M. Culiolo, S. Iannotta, A. Zappettini
12:30 - 12:45	EVALUATION OF A SYNTHETIC PEPTIDE FOR THE SELECTIVE BINDING OF CHLOROGENIC ACID DERIVATIVES USING ELECTROCHEMICAL SENSORS D. Compagnone, D. Capoferri, M. Sergi, <u>M. Del Carlo</u>, C. Forzato, F. Berti
12:45	<i>Chiusura del Convegno</i>