

 **Società
Chimica
Italiana**

XXXI CONGRESSO NAZIONALE
della **Divisione di Chimica Analitica**
7-11 Settembre 2025, Pisa

Programma

Polo della Memoria San Rossore 1938 - Pisa

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A nome del Comitato Scientifico e del Comitato Organizzatore, siamo lieti di darvi il benvenuto alla XXXI edizione del Congresso Nazionale della Divisione di Chimica Analitica della Società Chimica Italiana, che quest'anno si svolge a Pisa, nel cuore di una delle più prestigiose città universitarie d'Europa.

Il congresso rappresenta un'occasione privilegiata per condividere i più recenti sviluppi della chimica analitica nei suoi molteplici ambiti teorici, metodologici e applicativi. L'edizione pisana ospiterà quattro giornate dense di contenuti scientifici di alto livello: conferenze plenarie affidate a studiosi di fama internazionale, keynote lectures, sessioni orali parallele e presentazioni poster, che offriranno ampio spazio anche ai giovani ricercatori. A ciò si aggiunge una nutrita area espositiva dove le aziende partner presenteranno tecnologie e soluzioni innovative per la ricerca analitica.

Il programma scientifico riflette la vitalità e la trasversalità della disciplina, spaziando dai temi classici della chimica analitica fino alle sfide emergenti legate alla sostenibilità, alla digitalizzazione, alla diagnostica e all'interfaccia con numerosi ambiti interdisciplinari. Particolare attenzione è rivolta anche quest'anno alla formazione e alla valorizzazione delle nuove generazioni di chimici analitici, nella convinzione che il congresso debba essere, oltre che un momento di aggiornamento scientifico, un'occasione di crescita personale e professionale.

Siamo orgogliosi di accogliervi a Pisa, crocevia di storia, cultura e scienza, e ci auguriamo che questa edizione possa favorire stimolanti scambi scientifici, nuove collaborazioni e il rinnovo dello spirito di comunità che da sempre anima la Divisione di Chimica Analitica.

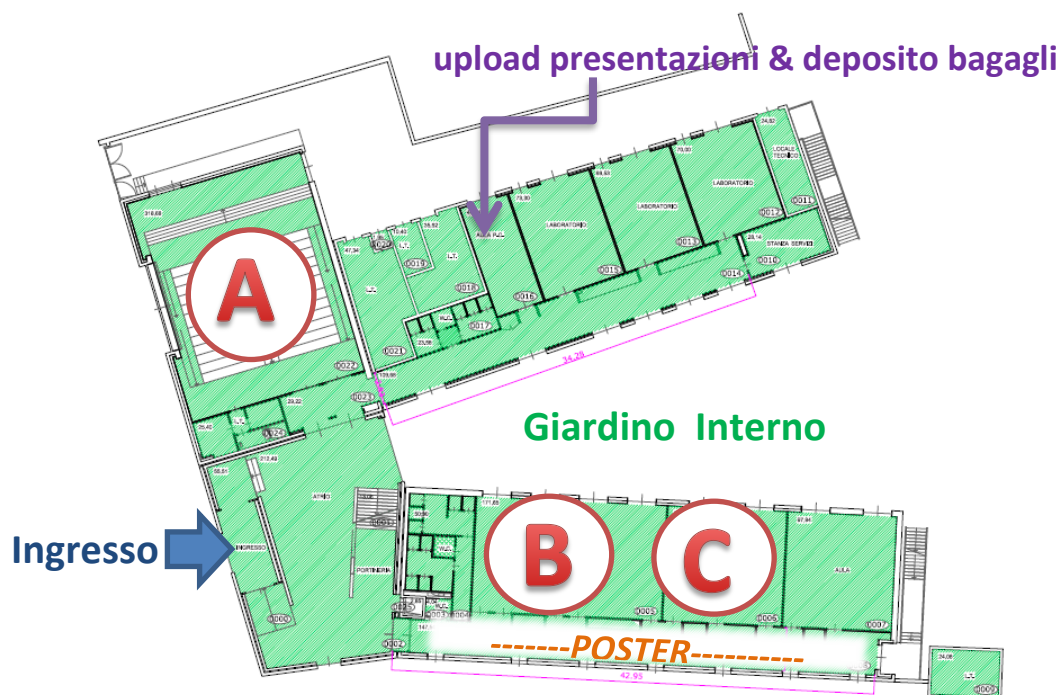
Buon congresso a tutti.

Francesca Modugno
Fabio Di Francesco
Chair Analitica 2025

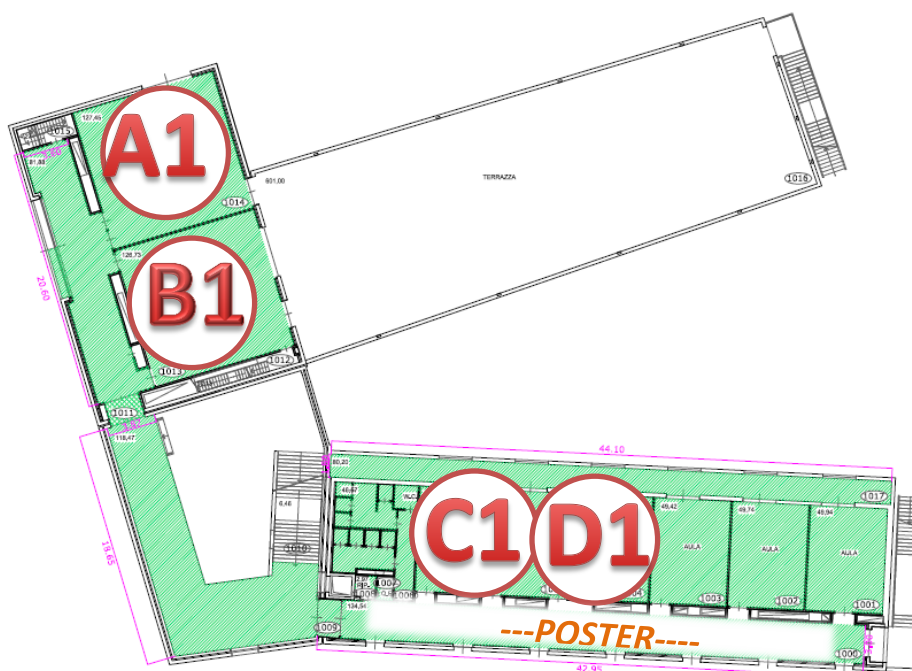
POLO DELLA MEMORIA - PLANIMETRIA

Via Risorgimento 19, 56126 PISA <https://maps.app.goo.gl/CWMz3C9heJfk3YrL9>

Piano
Terra



Piano
Primo



RACCOMANDAZIONI PER ORAL PRESENTATION - RECOMMENDATIONS FOR ORAL PRESENTATION

Keynote: 20 min (17 min di presentazione + 3 min di discussione)

Oral communication: 15 min (12 min di presentazione + 3 min di discussione)

Le diapositive dovranno essere preparate utilizzando MS-PowerPoint, in formato 16:9.

Per caricare il contributo orale / to upload the oral presentation:

Il contributo potrà essere caricato nell'aula dedicata (piano terra, corridoio a destra dell'aula magna) nel giorno precedente a quello in cui si terrà la sessione di interesse. / The presentation can be uploaded in the designated room (ground floor, corridor to the right of the main lecture hall) on the day before the session of interest takes place.

Domenica 7 Settembre 2025

17.00 – 21.00 **Registrazione dei partecipanti**

18.30 – 21.00 **Cocktail di benvenuto**

Lunedì 8 Settembre 2025

Dalle 08.30 **Registrazione dei partecipanti**

AULA A – PIANO TERRA (streaming Aula B PIANO TERRA)

09.00 – 09.30 **Apertura del Congresso**

09.30 – 10.15 Conferenza Plenaria **PL1** – Moderatore T. Biver

Prof. M. Clara F. Magalhães - School of Biological, Earth & Environmental Sciences, UNSW Sydney, Australia - Linking Landscape Environment Agriculture and Food (LEAF) Research Centre, Associate Laboratory TERRA, School of Agriculture, University of Lisbon. ***“Solubility contributions to sustainability”***.

10.15 – 10.35 Conferenza Vincitore del Premio Giovane Ricercatore. **Dott.ssa Carmela Maria Montone** - Sapienza University of Rome. ***“Selective, sustainable, smart: evolving the science of sample preparation”***

10.35 – 11.05 **Coffee Break**

AULA A – PIANO TERRA

Sessione Parallela: Chemiometria (CHEMO) – Moderatori F. Marini e P. Oliveri

11.10 – 11.30 **O-KN-CHEMO-1** *Beyond error boundaries: unlocking historical data from zoological specimens with portable NIR sensors and chemometrics,*

B. Giussani, J. Riu, M. Monti, L. Baruffaldi, M. Campeny, J. Quesada - University of Insubria

11.30 – 11.45 **O-CHEMO-2** *Kernel-based reliability potential to assist data-driven prediction and system transfer of SFC-MS retention time*

D. Ballabio, V. Termopoli, C. Rojas, V. Consonni - University of Milano-Bicocca

11.45 – 12.00 **O-CHEMO-3** *Mapping emerging organic contaminants in wastewater, superficial and sub-superficial water by untargeted LC-HRMS*

C. Durante, L. Strani, M. Pietropaolo, D. Tanzilli, M. Cocchi, B. Benedetti, G. Perra, F. Ronchetti, S. Pellacani - University of Modena and Reggio Emilia

12.00 – 12.15 **O-CHEMO-4** *INSIDE PROJECT: an in-depth chemical mapping by means of NIR spectral imaging and chemometrics*

C. Malegori, S. Gariglio, S. Kucheryavskiy, A. Gowen, E. Alladio, G. Sciutto, C. Scagliarini, E. Catelli, A. Mazzoleni, Z. Li, P. Oliveri - University of Genova

- 12.15 – 12.30 **O-CHEMO-5** *A novel chemometric strategy for in-situ electrical conductivity prediction of tap water in a flow system*
A. Bova, L. R. Magnaghi, A. Bonanni, G. P. Quarta, R. Biesuz - University of Pavia
- 12.30 – 12.45 **O-CHEMO-6** *Leveraging design of experiments to unravel the amplification mechanism of single-molecule wide-field biosensors*
E. Macchia, M. Catacchio, M. Caputo, L. Sarcina, C. Di Franco, M. Piscitelli, E. Castrignanò, P. Bollella, G. Scamarcio, L. Torsi - University of Bari Aldo Moro
- 12.45 – 13.00 **O-CHEMO-7** *Texturegrams: a data dimensionality reduction method for codifying texture of RGB images*
A. Ulrici, R. Calvini, C. Menozzi, V. Ferrari, G. Foca, J.M. Prats-Montalbán - University of Modena and Reggio Emilia
- 13.00 – 13.15 **O-CHEMO-8** *Mixture-process designs: an effective solution for complex analytical problems*
B. Benedetti, E. Ceccardi, J. Gambetta Vianna, M. Di Carro, E. Magi - University of Genova

AULA A1 – PRIMO PIANO

Sessione Parallela: Ambiente e Beni Culturali (ABC) – Moderatori G. Adami e C. Minero

- 11.10 – 11.30 **O-KN-ABC-1** *Sunlight-driven transformation pathways of the sulphonamide antibiotic sulfamethoxazole in surface waters*
M. A. Andino-Enríquez, D. Fabbri, D. Vione, P. Calza - University of Turin
- 11.30 – 11.45 **O-ABC-2** *A contamination-controlled analytical method for the determination of cVMS in indoor and outdoor air*
G. Trevisanato, A. Gambaro, C. Barbante, J. Durham, M. Vecchiato - Ca' Foscari University of Venice
- 11.45 – 12.00 **O-ABC-3** *Combining advanced oxidation and reductive processes in a treatment train to efficiently degrade the forever-chemical, PFAS, from wastewater*
I. Sciscenko, C. Minero, M. Minella – University of Turin
- 12.00 – 12.15 **O-ABC-4** *Assessing human exposure to micro- and nanoplastics by Py-GC-MS: Advances in analytical methods*
F. Nardella, M.J.M. van Velzen, K.J. Houthuijs, F. Béen, M.H. Lamoree - Vrije Universiteit
- 12.15 – 12.30 **O-ABC-5** *New strategies to mitigate lead leaching from perovskite solar cells*
S. Barreca, S. Orecchio, D. Amorello, A. Contino, G. Maccarrone, A. Giuffrida, S. Orecchio, T. Fiore, G. Arrabito - University of Catania
- 12.30 – 12.45 **O-ABC-6** *Interactions of metals and plastics in aquatic ecosystems: environmental implications and analytical opportunities*
G. Binda, D. Spanu, L. Botta, S. Carnati, G. Macchi, C. Dossi, L. Nizzetto, A. Pozzi - Norwegian Institute for Water Research
- 12.45 – 13.00 **O-ABC-7** *Modulating the nutritional profile of Acheta domesticus (house cricket) through microalgae within a circular economy framework*
B. Ajdini, I. Biancarosa, S. Illuminati, A. Annibaldi, F. Girolametti, L. Massi, M. Fanelli, C. Truzzi - Polytechnic University of Marche
- 13.00 – 13.15 **O-ABC-8** *Thermal behavior of chemically modified cotton fibers: a combined TGA, DSC, and Py-GC/MS study*
V. Maurino, M. Isola, G. Colucci, A. Tonani, A. Sin - University of Turin

AULA C1 – PRIMO PIANO

Sessione Parallela: Salute, Bioanalitica e Omics (SBIO) – Moderatori A. L. Capriotti e M. Careri

- 11.10 – 11.30 **KN-O-SBIO-1** *The core facility perspective on LC-MS proteomics: continuous balancing of throughput, quality, and research impact*
R. Zenezini Chiozzi, K. Thalassinou - University College London
- 11.30 – 11.45 **O-SBIO-2** *Efficient tear sampling and absolute protein quantification using Schirmer strip and mass spectrometry*
E. Porru, R. Comito, G. Astolfi, J. Fiori, P. Versura, F.S. Violante - University of Bologna
- 11.45 – 12.00 **O-SBIO-3** *Bioanalytical and proteomic-based investigation of mitochondrial targeting in pancreatic cancer cells*
G. Siragusa, J. Brandi, T. Rawling, M. Murray, **D. Cecconi** - University of Verona
- 12.00 – 12.15 **O-SBIO-4** *Cutting-edge analytical procedures to uncover small-middle molecular weight uremic toxins in dialysate and plasma of chronic kidney disease patients*
D. Biagini, S. Ghimenti, A. Lenzi, M. De Cristofaro, T. Lomonaco, F.M. Vivaldi, L. Sembranti, E. Satta, S. Mazzaferro, F. Di Francesco - University of Pisa
- 12.15 – 12.30 **O-SBIO-5** *Untargeted MS-based metabolomics for investigating the metabolic dysregulations associated with cholangiocarcinoma pathogenesis and progression*
A. Cerrato, A. Biancolillo, A. Lleo de Nalda, A. Laganà, C. M. Montone, E. Taglioni, A. L. Capriotti - Sapienza University of Rome
- 12.30 – 12.45 **O-SBIO-6** *Data fusion combining high-resolution mass spectrometry and ¹H-nuclear magnetic resonance metabolomic data with gluten protein analysis to assess the impact of agro-sustainable treatments on durum wheat*
N. Riboni, M. Piergiovanni, M. Mattarozzi, E. Cruz Muñoz, C. Muhs, M. Caldara, M. Gulli, S. Graziano, E. Maestri, N. Marmiroli, C. Richter, D. Ballabio, F. Bianchi, M. Careri - University of Parma
- 12.45 – 13.00 **O-SBIO-7** *A MEPS-LC-MS/MS platform for non-invasive kidney function assessment via simultaneous creatinine and cystatin-c analysis in sweat*
S. Ghimenti, A. Lenzi, M. De Cristofaro, D. Biagini, E. De Gregorio, P. Salvo, F. Di Francesco, **T. Lomonaco** - University of Pisa
- 13.15 – 14.00 **Lunch**
- 14.00 – 15.00 **Sessione POSTER 1: CHEMO, SBIO** (informazioni: pag 26)

AULA A – PIANO TERRA

Sessione Parallela: Chemiometria (CHEMO) – Moderatori D. Ballabio e A. Ulrici

- 15.00 – 15.15 **O-CHEMO-09** *BORDER project: metabolomics and chemometric strategies for biomarkers discovery in bipolar disorder*
S. Tanilli, G. Solarino, M. Massano, C. Bretti, M. Galletto, C. Brida, E. Ziliani, M. Carnovale, A. Olarini, R. Santalucia, A. Salomone, P. Garofano, M. Vincenti, G. Lando, **E. Alladio** - University of Turin

- 15.15 – 15.30 **O-CHEMO-10** *Enhancing the accuracy of bioelectronic point-of-care tests through chemometricians approach*
V. Mongelli, M. Caputo, F. Intranuovo, L. Sarcina, L. Torsi, E. Macchia - University of Bari Aldo Moro
- 15.30 – 15.45 **O-CHEMO-11** *Multi-way techniques and ion mobility spectrometry for honey authentication*
S. Pellacani, D. Tanzilli, M. Cocchi, R. Barattini, A. Napolitano, F. Martone, L. Strani, N. Coppola, C. Durante - University of Modena and Reggio Emilia
- 15.45 – 16.00 **O-CHEMO-12** *Development of novel analytical strategies for rapid quantification of natural pigments from plants extract: combining spectroscopy and chemometrics*
E. Frignani, S. Pellacani, C. Durante, M. Grandi, F. Roncaglia, L. Pigan - University of Modena and Reggio Emilia
- 16.00 – 16.15 **O-CHEMO-13** *Uncovering oregano fraud using NIR HyperSpectral imaging and soft PLS-DA*
G. Foca, R. Calvini, V. Ferrari, A. Tata, R. Piro, M. Bragolusi, M. Suman, A. Ulrici - University of Modena and Reggio Emilia
- 16.15 – 16.30 **O-CHEMO-14** *ASCA (ANOVA–Simultaneous Component Analysis) to assess the effect of aging and winemaking process on the quality of Pecorino sparkling wines*
A. A. D'Archivio, L. Marsili, A. Biancolillo, G. Andreoli, C. Zulli - University of L'Aquila
- 16.30 – 17.00 **Coffee Break**

Sessione Parallela: Chemiometria (CHEMO) – Moderatori D. Ballabio e A. Ulrici

- 17.00 – 17.15 **O-CHEMO-15** *Evaluating sources of variability in portable NIR-based protein and moisture analysis of durum wheat kernel samples*
M. Monti, M. Cocchi, A. D'Alessandro, C. Durante, M. Pietropaolo, L. Strani, B. Giussani - University of Insubria
- 17.15 – 17.30 **O-CHEMO-16** *Chemometrics to enhance the sensitivity of electrochemical biosensors for microRNA detection*
W. Cimmino, S. Esposito, P.M. Kalligosfyri, N. Iaccarino, S. Cinti - University of Naples Federico II
- 17.30 – 17.45 **O-CHEMO-17** *Chemometric tools for bioaerosol monitoring*
S. Fornasaro, S. Semeraro, C. Romanello, A.S. Gaetano, S. Licen, G. Adami, P. Barbieri - University of Trieste

AULA A1 – PRIMO PIANO

Sessione Parallela: Ambiente e Beni Culturali (ABC) – Moderatori C. Dossi e M. Minella

- 15.00 – 15.15 **O-ABC-09** *Tracking organic carbon in motion: emerging opportunities with fluorescence spectroscopy*
S. Loisel, A. Boldrini, A. Polvani, R. Cirrone, X. Liu, L. Galgani, G. Tamasi - University of Siena
- 15.15 – 15.30 **O-ABC-10** *Use of lead concentrations and isotope ratios for the assessment of the origin of dry and wet depositions reaching the norwegian high Arctic*
F. Ardini, M. Mataloni, V. Minutoli, M. Zanardi, M. Grotti - University of Genoa
- 15.30 – 15.45 **O-ABC-11** *Investigation of the composition of natural brines and sediments from a hypersaline lake in Antarctica*
T. Chenet, A. Pagnoni, M. Giani, C. Fabbro, C. Stevanin, V. Costa, M. Cescon, L. Pasti - University of Ferrara

- 15.45 – 16.00 **O-ABC-12** *Plastic additive transfer from conventional and biodegradable mulches to soil and strawberries*
C. Scopetani, A. Bellabarba, G. Selvolini, T. Martellini, C. Viti, A. Cincinelli – University of Florence
- 16.00 – 16.15 **O-ABC-13** *Benefits of thermal desorption cryogenic zone compression GC-QqQ MS approach for PAHs monitoring in environmental samples*
A. Ferracane, M. Zoccali, L. Mondello - University of Messina
- 16.15 – 16.30 **O-ABC-14** *“Up in the air, deep on the ground” - Quantification & identification of microplastics in marine sediments and air by pyrolysis-GC/MS*
M. Soll, A. Watanabe, W. Pipkin - Frontier Laboratories Europe
- 16.30 – 17.00 **Coffee Break**

Sessione Parallela: Ambiente e Beni Culturali (ABC) – Moderatori C. Dossi e M. Minella

- 17.00 – 17.15 **O-ABC-15** *Rapid monitoring of microplastics in the environment: a powerful analytical strategy based on micro-scale spectral imaging and chemometrics*
I. Saraceno, E. Catelli, C. Malegori, B. Bravo, J. La Nasa, G. Biale, A. Traina, S. Prati, F. Modugno, P. Oliveri, **G. Sciutto** - University of Bologna
- 17.15 – 17.30 **O-ABC-16** *Tracing environmental threats: non-targeted HPLC-HRMS analysis of mountain snow highlights widespread presence of emerging contaminants in remote environments*
M. H. Belay, M. Adányi, M. A. A. Enríquez, A. Fabbris, A. Ghignone, P. Calza, E. Marengo, E. Robotti - University of Piemonte Orientale
- 17.30 – 17.45 **O-ABC-17** *Non-targeted screening applied to water safety planning: evaluating emerging contaminants in groundwater*
M. Roverso, S. Pettenuzzo, M. Menghini, R. Pedrazzani, S. Bogialli - University of Padova
- 17.45 – 18:00 **O-ABC-18** *Deep-sea contamination and transport mechanisms: quantifying organic and inorganic pollutants in the Japan trench*
S. Trotta, J. Schwarzbauer, A. Pozzi, P. Bellanova - University of Insubria

AULA C1 – PRIMO PIANO

Sessione Parallela: Salute, Bioanalitica e Omics (SBIO) – Moderatori L. Anfossi e P. Reschiglian

- 15.00 – 15.15 **O-SBIO-8** *Lactate as a metabolic modulator in human senescent cardiomyocytes: implications for cardiac adaptation in athletes*
G. Pinto, A. Illiano, S. Luti, R. Militello, A. Modesti, A. Amoresano - University of Naples Federico II
- 15.15 – 15.30 **O-SBIO-9** *3D-printed integrated electroanalytical device for ischemic stroke point-of-care testing*
D. Paolini, S. Dorte, M. Pacheco, F. Della Pelle, D. Compagnone, A. Escarpa - University of Teramo
- 15.30 – 15.45 **O-SBIO-10** *Passive sampling and profiling of volatile compounds emitted from skin*
R. Di Stefano, M. De Poli, V. Galliani, A. Polidoro, A. Cavazzini, F. A. Franchina - University of Ferrara
- 15.45 – 16.00 **O-SBIO-11** *Metabolomic profiling of sediments for assessing environmental quality in natural and anthropogenic ecosystems*
S. Pettenuzzo, M. Roverso, R. Frizzo, A. Faccin, A. Voltolina, A. Barausse, P. Venier, S. Bogialli - University of Padova

- 16.00 – 16.15 **O-SBIO-12** *Transcription factor-driven CRISPR signaling pathways using structure-switching DNA translators*
L. Capelli, S. Marzari, E. Spezzani, A. Bertucci - University of Parma
- 16.15 – 16.30 **O-SBIO-13** *Programmable DNA combinatorial networks to control in-vitro transcription*
M. Quattrocioni, S. Brannetti, E. Del Grosso, F. Ricci - University of Rome "Tor Vergata"
- 16.30 – 17.00 **Coffee Break**

Sessione Parallela: Salute, Bioanalitica e Omics (SBIO) – Moderatori L. Anfossi e P. Reschiglian

- 17.00 – 17.15 **O-SBIO-14** *Evaluation of zinc oral bioaccessibility from ZnO-alginate food packaging films using a fully automatic flow-through optical system*
A.V. Montefusco, M. Oliver, M. Pons, M. Izzi, M.C. Sportelli, N. Cioffi, **R.A. Picca**, M. Miró - University of Bari Aldo Moro
- 17.15 – 17.30 **O-SBIO-15** *Designing biopolymer-based receptors through molecular imprinting technology*
A. Marinangeli, D. Moranduzzo, G. Passeri, D. Maniglio, **A. M. Bossi** - University of Verona
- 17.30 – 17.45 **O-SBIO-16** *Next-Gen diagnostics: antibody-free competitive assay using nanoMIPs for adenosine. A proof-of-concept for synthetic bioassays*
V. Testa, S. Cavallera, F. Di Nardo, T. Serra, C. Baggiani, L. Anfossi, M. Mirasoli, M. Zangheri, D. Calabria, M. Guardigli, S. R. Shariati Pour, A. Emami Amin, P. Abbasrezaee, A. Nascetti, L. Popova, A. Norfini, L. Parca, S. Perilli - University of Turin

AULA A - PIANO TERRA (streaming Aula B PIANO TERRA)

- 18.00 – 19.00 **Tavola Rotonda "La Chemiometria da Parvus all'AI: parliamone con Michele Forina"**
A cura di Aldo Roda, Davide Ballabio e Pierluigi Reschiglian
Intervengono: Michele Forina, Eugenio Alladio, Caterina Durante, Federico Marini

Martedì 9 Settembre 2025

Dalle 08.30 **Registrazione dei partecipanti**

AULA A - PIANO TERRA (streaming Aula B PIANO TERRA)

09.00 – 09.45 Conferenza Plenaria **PL2** – Moderatore N. Cioffi
Prof. Boris Mizaikoff - Institute of Analytical and Bioanalytical Chemistry, Ulm University;
 Hahn-Schickard, Institute for Microanalysis Systems, Ulm. **“Next-generation molecularly templated materials: from biomimetics to biosuperiors”**.

AULA A – PIANO TERRA

Sessione Parallela: Sensori (SENS) – Moderatori M. Minunni e M. Mirasoli

- 09.55 – 10.15 **KN-O-SENS-1** *Challenges in plasmonic biosensors: device integration strategies for biomarker detection in clinical settings*
N. Bellassai, R. D'Agata, P. Giacomini, R. Gambari, F. Spinella, R. Corradini, G. Spoto - University of Catania
- 10.15 – 10.30 **O-SENS-2** *Continuous single-molecule identification of full-length proteins with single-amino-acid resolution using biological nanopores*
A. Bonini, C. Lu, A. Jansen, P. O'Connell Stack, A. Sauciuc, G. Maglia – University of Groningen
- 10.30 – 10.45 **O-SENS-3** *Plasmonic nanosized molecularly imprinted polymer (nanoMIP) as innovative optical lateral flow immunoassay probes*
T. Serra, S. Cavallera, J. Perez-Juste, I. Pastoriza-Santos, F. Di Nardo, V. Testa, C. Baggiani, L. Anfossi - University of Turin
- 10.45 – 11.00 **O-SENS-4** *Plasmonic single-molecule affinity detection at 10^{-20} molar*
L. Torsi, C. Di Franco, L. Sarcina, M. Piscitelli, M. Catacchio, M. Caputo, P. Bollella, G. Scamarcio, E. Macchia - University of Bari Aldo Moro
- 11.00 – 11.30 **Coffee Break**

Sessione Parallela: Sensori (SENS) – Moderatori M. Minunni e M. Mirasoli

- 11.30 – 11.45 **O-SENS-5** *Solid state electrochemical sensor for the detection of hydrogen*
F. Vivaldi, A. Cerchiai, F. Di Francesco - University of Pisa
- 11.45 – 12.00 **O-SENS-6** *Hybrid SERS-active polymeric Interfaces for trace detection in Conservation Science*
 G. Peruzzi, A. Ciccola, F. Costantini, C. Fasolato, V. Nigro, C. Manetti, P. Postorino, G. Favero - Sapienza University of Rome
- 12.00 – 12.15 **O-SENS-7** *Ultra-sensitive POC biosensors for clinically relevant biomarkers*
L. Sarcina, M. Caputo, P. Bollella, E. Macchia, L. Torsi - University of Bari Aldo Moro
- 12.15 – 12.30 **O-SENS-8** *Innovative molecular imprinting strategies for enhanced norepinephrine-based biosensing: a myoglobin case study*

D. Sestaioni, G. Ciacci, S. Ventisette, P. Palladino, S. Tombelli, A. Barucci, M. Minunni, S. Scarano - University of Florence

12.30 – 12.45 **O-SENS-9** *Electrochemical detection of cancer-related extracellular vesicles through microfluidic assays*

P. S. Sfragano, S. Laschi, G. Condorelli, G. Scoccianti, D. A. Campanacci, S. Pillozzi, I. Palchetti - University of Florence

12.45 – 13.00 **O-SENS-10** *Rethinking affinity sensing: how synthetic receptors and laser-induced graphene are redefining wearable electrochemical analytics*

I. A. Vitale, Md Sharifuzzaman, N. S. Moldovean Cioroianu, G. Marrazza, Z. Altintas – University of Kiel

13.00 – 13.15 **SENS-OR11** *Fully 3D-printed trident-shaped electrochemical sensor for real time measurements*

P. Kalligosfyri, M. Tuccillo, A. Miglione, M. Spinelli, A. Amoresano, D. Calabria, M. Mirasoli, S. Cinti - University of Naples Federico II

AULA A1 – PRIMO PIANO

Sessione Parallela: Ambiente e Beni Culturali (ABC) – Moderatori C. De Stefano e S. Loisel

9.55 – 10.10 **O-ABC-19** *Optimization of PFAS removal from Landfill Leachate by Electrocoagulation treatment*

E. Conteroso, G.S. Soomro, M. Lo Scalzo, E. Longo, A. Zenone, E. Boccaleri, S. Aprile, V. Gianotti - University of Piemonte Orientale

10.15 – 10.30 **O-ABC-20** *Performic acid: a new tool for a sustainable contaminant of emerging concern removal*

S. Pellegrino, M. Marafante, I. Sciscenko, S. Berto, C. Minero, M. Minella - University of Turin

10.30 – 10.45 **O-ABC-21** *From waste to resource: exploring rare earth adsorption on bergamot pomace*

S. G. M. Raccuia, V. Vallès, O. Crespo, O. Gibert, C. Granata, A. Irto, P. Cardiano, D. Lascari, A. Pettignano, C. De Stefano, J. L. Cortina, G. Lando - University of Messina

10.45 – 11.00 **O-ABC-22** *Analytical approach to PFAS in air using TD-GC-MS and direct analysis*

H. Calder, L. Miles, S. Samlert, **D. Morosini**, E. Sebastiani - Markes International LTD

11.00 – 11.30 **Coffee Break**

Sessione Parallela: Ambiente e Beni Culturali (ABC) – Moderatori M. P. Colombini e V. Maurino

11.30 – 11.45 **O-ABC-23** *An innovative green analytical method for the sampling and the detection of volatile organic compounds in the atmosphere*

M. Ricciardi, F. Cannizzaro, D. Sciarrone, P. Donato, L. Mondello, O. Motta, A. Proto - University of Salerno

11.45 – 12.00 **O-ABC-24** *Analysis of anatomical-pathological preparations from the ancient collection of the Museum of Pathological Anatomy of the University of Turin*

M. Ginepro, F. Alchera, E. R. Ghergu, L. Ferrari, S. Micalizio - University of Turin

12.00 – 12.15 **O-ABC-25** *Daunian ceramics explored: combining analytical techniques with historical perspectives*

C. Biscotti, A. Mangone, **L. C. Giannossa** - University of Bari Aldo Moro

- 12.15 – 12.30 **O-ABC-26** *NIR hyperspectral imaging and spectroscopy as a tool for the in-depth non-destructive investigation of historical and archaeological heritage*
S. Prati, G. Sciutto, E. Catelli, L. Gatti, Z. Li, M. Mingchi, S. Talamo, C. Malegori, P. Oliveri - University of Bologna
- 12.30 – 12.45 **O-ABC-27** *Soft touch, strong insight: hydrogel-based MS profiling of historical gum binders*
E. C. L. Rigante, S. Armagno, T. R. I. Cataldi, C. D. Calvano - University of Bari Aldo Moro
- 12.45 – 13.00 **O-ABC-28** *Beeswax chemical degradation induced by photo-aging in complex archaeological adhesives*
I. Bertelli, E. Ribechini, M. Mattonai - University of Pisa
- 13.00 – 13.15 **O-ABC-29** *Decoding the hidden palette of ACNA industry: liquid chromatography applied to 1950s textile swatches*
A. Ferretti, B. Campanella, S. Legnaioli, I. Degano - University of Pisa

AULA C1 – PRIMO PIANO

Sessione Parallela: Equilibri in soluzione e speciazione (EQS) – Moderatori R. Biesuz e M. Remelli

- 09.55 – 10.15 **KN-O-EQS-1** *Determination of complex species and binding parameters in host-guest equilibria: overlooked issues and easy-to-use solutions*
C. Sgarlata - University of Catania
- 10.15 – 10.30 **O-EQS-2** *Analytical multi-technique approach to successfully tackle the complexity of metal-peptide interaction: the case of copper-microplusin*
D. Bellotti, S. Leveraro, M. Rowińska-Żyrek, M. Remelli - University of Ferrara
- 10.30 – 10.45 **O-EQS-3** *On the recovery of REEs from bauxite by biosorption onto *Galdieria sulphuraria**
C. Manfredi, A. Giarra, F. Lombardo, A. Marano, N. Mondillo, G. Pinto, O. Ruiz de Ballesteros, M. Trifuoggi, E. Vasca, G. Balassone - University of Naples Federico II,
- 10.45 – 11.00 **O-EQS-4** *Complexation behaviour of curcumin with selected metal ions in aqueous solution*
E. Furia - University of Calabria
- 11.00 – 11.30 **Coffee Break**

Sessione Parallela: Equilibri in soluzione e speciazione (EQS) – Moderatori T. Biver e D. Milea

- 11.30 – 11.45 **O-EQS-05** *Insights into the redox non-innocent coordination of 6,7-dihydroxycoumarin: speciation with $V^{IV/V}$, Cu^{II} , and Zn^{II} in aqueous solution*
M. Marafante, E. Laurenti, D. Fabbri, S. Bertinetti, O. Akintola, B. Kintzel, W. Plass, S. Gama, D. Milea, S. Berto - University of Turin
- 11.45 – 12.00 **O-EQS-06** *Interaction of O-phosphoryl ligands with Cu^{2+} and Zn^{2+} in aqueous solution: a speciation study*
C. Abate, F. Carnamucio, M. Cordaro, C. Foti, G. Cassone, O. Giuffrè - University of Messina
- 12.00 – 12.15 **O-EQS-07** *Binding equilibria involving novel prism[n]arene receptors in water: a solution thermodynamic perspective*
G. D. G. Santonoceta, R. Del Regno, P. Della Sala, A. Palmieri, P. Neri, M. De Rosa, C. Talotta, C. Gaeta, C. Sgarlata - University of Catania
- 12.15 – 12.30 **O-EQS-08** *An in-depth study on Pb^{2+} adsorption on cladodes of *Opuntia ficus indica**
D. Lascari, S. G. M. Raccuia, N. Muratore, S. Cataldo, G. Lando, M. Tolazzi, A. Melchior, A.

Pettignano - University of Palermo

- 12.30 – 12.45 **O-EQS-09** *On the trail of Gadolinium hydrolysis: toward a clearer understanding*
C. Granata, S. G. M. Raccaia, S. Gama, C. Bretti, M. Maisano, C. De Stefano, G. Lando, D. Milea - University of Messina
- 12.45 – 13.00 **O-EQS-10** *Photochemical behavior and fate of emerging contaminants in artificial snow and surface water*
M. Andino, L. Carena, C. Minero, D. Vione, P. Calza - University of Turin
- 13.15 – 14.00 **Lunch**
- 14.00 – 15.00 **Sessione POSTER 2: ABC, EQS, SENS** (informazioni: pag 26)
- 15.00 – 16.00 **Assemblee dei Gruppi Divisionali e Interdivisionali**
Sensori G.I. (AULA A piano terra)
Scienza delle Separazioni G.I. (AULA B piano terra)
Bioanalitica G.D. (AULA C piano terra)
Chemiometria G.D. (AULA A1 primo piano)
Forense G.D. (AULA C1 primo piano),
Forense G.D. (AULA D1 primo piano)
- 16.30 – 19.00 **GITA SOCIALE – Il Complesso Monumentale di Piazza dei Miracoli**
Ritrovo ore 16.30 di fronte all'Hotel Duomo in Via Santa Maria

Mercoledì 10 Settembre 2025

Dalle 08.30 **Registrazione dei partecipanti**

AULA A PIANO TERRA (streaming Aula B PIANO TERRA)

09.00 – 09.45 Conferenza Plenaria **PL3** – Moderatore A. Capiello
Prof. Davy Guillarme - School of pharmaceutical sciences, University of Geneva, CMU;
 Institute of Pharmaceutical Sciences of Western Switzerland (ISPSO), University of Geneva,
 CMU. *"Pushing the limits of analytical methods to characterize increasingly complex
 pharmaceutical molecules"*.

AULA A – PIANO TERRA

Sessione Parallela: Sensori (SENS) – Moderatori M. Giannetto e L. Torsi

9:55 – 10.10 **O-SENS-12** *Exploiting hybridization chain reaction within a paper-based configuration
 towards miRNA detection for future cancer liquid biopsy*
A. Raucci, A. A. Santillo, L. Capelli, A. Giordano, A. Bertucci, S. Cinti - University of Naples
 Federico II

10:15 – 10.30 **O-SENS-13** *Laser-manufactured paper-based colorimetric analytical kit for sodium
 hypochlorite determination in milk*
P. Di Battista, A. Scroccarello, F. Della Pelle, P. D. El Fadil, D. Compagnone – University of
 Teramo

10.30 – 10.45 **O-SENS-14** *Bamboo-paper integrating laser-induced graphene biosensor for the
 determination of inulin in biological fluids*
I.V. Di Cristoforo, F. Silveri, D. Paolini, F. Della Pelle, A. Scroccarello, P. Bollella, K. Sowa, D.
 Compagnone - University of Teramo

10.45 – 11.00 **O-SENS-15** *Biocompatible and biodegradable MIP-based sensor for in-vivo real time
 monitoring of a chemotherapeutic agent*
 T. Di Giulio, I. Muhammad Asif, C. Malitesta, E. Vandini, A. Vilella, G. Leo, D. Giuliani, M.C.
 orsi, G. Barillaro, **E. Mazzotta** - University of Salento

11.00 – 11.30 **Coffee Break**

Sessione Parallela: Sensori (SENS) – Moderatori M. Giannetto e L. Torsi

11.30 – 11.45 **O-SENS-16** *Development of novel biosensing tools based on gold nanoparticle/luciferase
 nanotags*
R. Desiderio, E. Maiorano, M. M. Calabretta, E. Michelini- University of Bologna

11.45 – 12.00 **O-SENS-17** *Microfluidic devices for luminescence-based biosensors in space life science
 research*
M. Mirasoli, L. Anfossi, M. Zangheri, D. Calabria, M. Guardigli, S. R. S. Pour, A. Emami Amin,
 C. Mattioli, E. Lazzarini, A. Pace, C. Baggiani, F. Di Nardo, S. Cavalera, D. Caputo, N.
 Lovecchio, L. Nardi, P. Abbasrezaee, S. Carletta, N. Burgio, L. Popova, C. Del Vecchio Blanco,
 F. Lorenzini, A. Norfini, S. Pezzilli, L. Parca, M. Crisconio, S. Perilli, M. Mergé, A. Nascetti -
 University of Bologna

- 12.00 – 12.15 **O-SENS-18** *Rational design of intrinsically disordered aptamer receptors using an integrated simulation and experimental approach*
M. Alfonsini, C. Freni, A. G. Chamorro, F. Iacovelli, A. Idili - University of Rome Tor Vergata
- 12.15 – 12.30 **O-SENS-19** *Click-functionalized spacers on biochar: a smart tool to robust, reproducible, and antifouling biosensors*
A. Licheri, V. Mattarelli, C. D'Ottavi, C. Mazzuca, R. Salvio, L. Micheli - University of Rome Tor Vergata
- 12.30 – 12.45 **O-SENS-20** *Engineered DNA condensates for detection of clinically-relevant antibodies*
S. Scalia, M. Cappa, E. Del Grosso, L. Rovigatti, L. Di Michele, F. Ricci - University of Rome Tor Vergata
- 12.45 – 13.00 **O-SENS-21** *Highly porous gold electrodes for ultrasensitive enzyme-based amperometric biosensors: environmental and industrial applications*
P. Bollella, V. Marchianò, A. Tricase, A. Cimino, Y. Suzuki, E. Fukawa, K. Sowa, E. Macchia, L. Torsi - University of Bari Aldo Moro

AULA A1 – PRIMO PIANO

Sessione Parallela: Scienza delle Separazioni e Spettrometria di Massa (SEPMS) – Moderatori C. D. Calvano e D. Corradini

- 9:55 – 10.15 **KN-O-SEP-MS-1** *Chromatography coupled to infrared spectroscopy: roles and perspectives*
T. M. G. Salerno - University of Messina
- 10:15 – 10.30 **O-SEP-MS-2** *Unlocking terpene enantiomeric resolution: optimization of carrier gas and chromatographic parameters on conventional and tandem chiral columns*
D. Sciarrone, L. Cucinotta, F. Cannizzaro, L. Mondello – University of Messina
- 10.30 – 10.45 **O-SEP-MS-3** *A structure-based analytical workflow based on high-resolution mass spectrometry for the in-depth characterization of sulfated phenolics in seaweeds*
E. Taglioni, A. Cerrato, C. M. Montone, A. Laganà, E. Lucà, A. L. Capriotti – Sapienza University of Rome
- 10.45 – 11.00 **O-SEP-MS-4** *Use of supercritical fluid chromatography for the characterization of liposoluble molecules in olive oil: an alternative to normal phase liquid chromatography*
E. Naegele, **L. Callipo**, N. Cimino - Agilent Technologies Italia

11.00 – 11.30 **Coffee Break**

Sessione Parallela: Scienza delle Separazioni e Spettrometria di Massa (SEPMS) – Moderatori C. D. Calvano e D. Corradini

- 11.30 – 11.45 **O-SEP-MS-5** *Tellurium speciation via frontal chromatography-ICP-MS in environmental matrices*
D. Spanu, C. Omodei, G. Binda, T. Grande, S. Recchia - University of Insubria
- 11.45 – 12.00 **O-SEP-MS-6** *Lignin-based copolymers as novel sorbents for bar adsorptive microextraction (Lig-BA μ E) of xenobiotic compounds in water samples*
V. Termopoli, F. Sabatini, V. Consonni, D. Ballabio, B. Schiavone, F. Corbetta, H. Lange - University of Milano-Bicocca

- 12.00 – 12.15 **O-SEP-MS-7** *Isotope ratio measurement of metal ions with ESI-orbitrap HRMS: method validation and early performance insights*
G. Roncoroni, D. Spanu, G. Binda, D. Monticelli – University of Insubria
- 12.15 – 12.30 **O-SEP-MS-8** *Direct and simultaneous species-specific isotope ratio determination of inorganic and methyl mercury*
A. R. López, G. Roncoroni, D. Monticelli – University of Pavia
- 12.30 – 12.45 **O-SEP-MS-9** *Quantification of Bisphenol A in enamels, resins and industrial paints at ppb level: a fully automated workflow*
D. Barboni, D. Bozza, D. N. Spadafora, N. Bianchi, B. Myftari, P. Tedeschi, C. De Luca, S. Felletti, A. Cavazzini, M. Catani – University of Ferrara
- 12.45 – 13.00 **O-SEP-MS-10** *Evaluation of reversed-phase and hydrophilic interaction liquid chromatography adsorbents for the untargeted analysis of bioactive compounds in Hypericum Perforatum*
A. Carretta, L. Venturini – SRA Instruments S.p.A
- 13.00 – 13.15 **O-SEP-MS-11** *Online coupling of AF4 with Raman microspectroscopy for an advanced study of nanoplastics in bovine milk*
S. Giordani, M. J. Huber, I. Jüngling, A. Placci, A. Zani, A. Zattoni, B. Roda, P. Reschiglian, V. Marassi, N. P. Ivleva – University of Bologna

AULA C1 – PRIMO PIANO

Sessione Parallela: Spettroscopia Analitica (SPA) – Moderatori E. Bramanti e G. Spoto

- 09.55 – 10.15 **KN-O-SPA-1** *The power of Surface Plasmon Resonance Spectroscopy: how to harness its potential for enhanced diagnostics*
R. D'Agata, N. Bellassai, P. Giacomini, R. Gambari, R. Corradini, G. Spoto – University of Catania
- 10.15 – 10.30 **O-SPA-2** *A perspective on developing sustainable electrodeposition formulations: from investigating basic mechanism of actions to DoE optimization*
F. Biffoli, P. Corsi, C. D. Francavilla, W. Giurlani, C. Bazzicalupi, M. Pagliai, M. Innocenti – University of Florence
- 10.30 – 10.45 **O-SPA-3** *Spectroscopic characterization of intermetallic diffusion in electroplated Cu–Au systems and barrier layer evaluation*
W. Giurlani, F. Biffoli, C. Giovani, A. Massaro, M. Bonechi, M. Innocenti – University of Florence
- 10.45 – 11.00 **O-SPA-4** *Multimodal and multiscale microscopy for advanced analytical characterization of complex materials*
D. Garoldini, F. Cognigni, F. Biancardi – ZEISS Italia, Research Microscopy Solutions
- 11.00 – 11.30 **Coffee Break**

Sessione Parallela: Spettroscopia Analitica (SPA) – Moderatori E. Bramanti e G. Spoto

- 11.30 – 11.45 **O-SPA-5** *Laser-induced breakdown spectroscopy for rapid multi-element screening of rice*
R. Cecire, S. Bertinetti, D. Adén, J. Andersen, K. H. Laursen, M. Romani, A. Giacomino, O. Abollino, L. Celi, M. Malandrino – University of Turin

- 11.45 – 12.00 **O-SPA-6** *Epitope-imprinted polynorepinephrine nanoparticles for selective and reusable protein sensing in flow-based SPR platforms*
S. Ventisette, P. Palladino, M. Minunni, S. Scarano - University of Florence
- 12.00 – 12.15 **O-SPA-7** *Detection of small microplastics in milk powder by μ Raman spectroscopy and environmental Scanning Electron Microscopy: analytical challenges and metrological perspectives*
M. Barbaresi, M. Piergiovanni, M. Masino, F. Bianchi, M. Mattarozzi, M. Careri – University of Parma
- 12.15 – 12.30 **O-SPA-8** *Tracking the early stage interactions of bacteria with antimicrobial surfaces through fluorescence spectroscopy*
M. Izzì, G. Bassu, A. Castellani, R. A. Picca, E. Fratini, M. Laurati, N. Cioffi - University of Bari Aldo Moro
- 12.30 – 12.45 **O-SPA-9** *Evaluation of the effect of the thickness of hydrogen barrier coatings on iron substrates using surface and electrochemical analytical techniques*
D. Biggio, B. Elsener, M. Fantauzzi, A. Rossi - University of Cagliari
- 12.45 – 13.00 **O-SPA-10** *An analytical study on the effect of different grain size of Sardinian limestone powders on the mechanism of cadmium removal from model solutions*
E. Tuveri, M. Fantauzzi, D. Biggio, M. Cau, B. Elsener, N. Careddu, A. Rossi -University of Cagliari
- 13.00 – 13.15 **SPA-OR11** *XPS study of highly dispersed Ni/Ce catalysts over clay bentonite support. Correlation between surface chemistry and catalytic activity*
N. Ditaranto, F. Nocito, A. Dibenedetto - University of Bari Aldo Moro
- 13.15 – 14.00 **Lunch**
- 14.00 – 15.00 **Sessione POSTER 3: ELE, FOTO, GREEN, SEPMS** (informazioni: pag 26)

AULA A – PIANO TERRA

Sessione Parallela: Sensori (SENS) – Moderatori A. Roda e S. Scarano

- 15.00 – 15.15 **O-SENS-22** *Polydopamine-engineered molecular imprints for highly sensitive detection of Polycyclic Aromatic Hydrocarbons*
A. Tricase, V. Marchianò, G. Roscini, N. Ditaranto, C. Di Franco, M. Piscitelli, E. Macchia, G. Scamarcio, L. Torsi, P. Bollella - University of Bari Aldo Moro
- 15.20 – 15.35 **O-SENS-23** *Proximity-induced PNA ligation as a novel approach to high-sensitivity electrochemical genoassays*
S. Fortunati, S. Nazir, F. Biondi, A. Manicardi, M. Giannetto, M. Careri - University of Parma
- 15.35 – 15.50 **O-SENS-24** *Ultrasensitive antibody detection using a proximity-driven CRISPR-Cas13 platform*
E. Spezzani, L. Capelli, D. Di Lena, A. Chamorro-Garcia, A. Porchetta, A. Bertucci – University of Parma
- 15.50 – 16.05 **O-SENS-25** *Two-dimensional Group VI transition metal dichalcogenides as label for the lateral flow immunoassay of visceral leishmaniasis*
F. Di Nardo, F. Della Pelle, A. Gelli, S. Nieddu, S. Cavallera, T. Serra, V. Testa, L. Anfossi, A. Scroccarello, D. Compagnone, C. Baggiani - University of Turin

- 16.05 – 16.20 **O-SENS-26** *Sustainable electrodes based on laser-modified polylactic acid and graphene oxide for monitoring catecholamine neurotransmitters*
G. Cazzador, A. Silvestri, A. Scidà, A. Kovtun, V. Palermo, M. Calosi, M. Bertoldo, E. Treossi, C. Zanardi - Ca' Foscari University of Venice
- 16.20 – 16.35 **O-SENS-27** *GreenNanoMIPs: a sustainable approach to ultra-sensitive detection of cardiac Troponin I*
A. Marinangeli, P. Cakir Hatir, A. M. Bossi - University of Verona
- 16.35 – 16.50 **O-SENS-28** *Innovative impedance-based technology for pathogens PCR-free sensing*
E. L. Sciuto, G. Bella, **E. Paratore**, M.S. Nicolò, K. Buonasera, T. Gritti, S. Varani, M.V. Balli, G. Valenti, L. Prodi, S. Conoci - University of Messina

AULA A1– PRIMO PIANO

Sessione Parallela: **Scienza delle Separazioni e Spettrometria di Massa (SEPMS)** – Moderatori A. Cappiello e T. R. I. Cataldi

- 15.00 – 15.15 **O-SEP-MS-12** *Characterizing microplastic-mediated transport of benzodiazepines using MOI-LEI-QqQ MS: sorption on virgin, aged, and biofilm-coated particles*
A. Kuriakose, G. Grasselli, T. Grazioso, A. Arigò, G. Famigliani, A. Cappiello - University of Urbino
- 15.20 – 15.35 **O-SEP-MS-13** *Determination of alpha-cypermethrin in vegetables matrices using QuEChERS approach and GC-MS/MS analysis*
I. Della Rovere, F. P. Casamassima, A. Accettulli, F. Catano, R. Zianni, V. Nardelli - Istituto Zooprofilattico Sperimentale della Puglia e della Basilicata
- 15.35 – 15.50 **O-SEP-MS-14** *Enantioselective liquid chromatography at preparative scale in early-phase drug discovery: a few selected examples*
R. Sardella, I. Varfaj, A. Gioiello, A. Macchiarulo, A. Carotti - University of Perugia
- 15.50 – 16.05 **O-SEP-MS-15** *Real-Time chemosignal monitoring and molecular fingerprinting for fear response analysis*
M. Ripszam, T. Bruderer, S. Reale, F. Vivaldi, A. L. Callara, A. Greco, S. Ghimenti, D. Biagini, T. Lomonaco, E. P. Scilingo, F. Di Francesco - University of Pisa
- 16.05 – 16.20 **O-SEP-MS-16** *Miniaturized and automatized extraction coupled to QqQ-MS analysis of pesticides from dried hemp inflorescences*
D. Donnarumma, G. Micalizzi, G. C. Presti, A. Trozzi, L. Mondello - University of Messina
- 16.20 – 16.35 **O-SEP-MS-17** *Design and implementation of an integrated system for enantio-selective GC×GC-MS and low-pressure GC-MS using a switching valve*
M. Zoccali, G. Rinaldi, A. Ferracane, L. Mondello - University of Messina
- 16.35 – 16.50 **O-SEP-MS-18** *Chromatographic profiling and fingerprinting approaches to investigate synthesis and accumulation of bioactive compounds in edible selenium-enriched plants and their derived food supplements MS*
D. Corradini - Italian National Research Council (CNR), Institute for Biological Systems, Roma
- 16.50 – 17.05 **O-SEP-MS-19** *A novel green ultrasound-assisted extraction method coupled to gas chromatography-mass spectrometry-based multiplatform for the characterisation of bio-based food contact materials*
M. Piergiovanni, S. Squara, C. Maffezzoni, M. Fontanarosa, N. Riboni, A. Cavazza, M. Mattarozzi, F. Bianchi, M. Suman, M. Careri - University of Parma

AULA C1 – PRIMO PIANO

Sessione Parallela: **Forense e Tossicologia (FOTO)** – Moderatori M. Sergi e M. Vincenti

- 15.00 – 15.20 **KN-O-FOTO-1** *Exploiting metabolomics for new psychoactive substances related studies: an integrated research plan based on different analytical techniques and advanced data analysis*
C. Montesano, I. Bracaglia, L. Chiodo, A. Bosi, S. Cesaroni, G. Petrella, G. Corli, S. Bilel, C. Fasolato, D.O. Cicero, M. Marti, M. Sergi - Sapienza University of Rome
- 15.20 – 15.35 **O-FOTO-2** *Dermal absorption of toxic metals following exposure to brake wear dust*
G. Marussi, E. Chiesa, E. Pavoni, G. Adami, F. Larese Filon, M. Crosera - University of Trieste
- 15.35 – 15.50 **O-FOTO-3** *Development and optimization of a multiparametric method for molecular fingerprinting of Cannabis*
M. Ruocco, E. Papa, G. Putzolu, G. Rizzo, C. Albertini, G. Gullifa, G. Battaglia, A. Brandolini, C. Fontanarosa, M. Spinelli, A. Amoresano, S. Materazzi, R. Risoluti - Sapienza University of Rome
- 15.50 – 16.05 **O-FOTO-4** *Analysis and identification of diesel adulteration using NIR spectroscopy and chemometric approaches: an innovative method for fuel quality and traceability*
E. Papa, G. Rizzo, G. Putzolu, M. Ruocco, G. Gullifa, C. Albertini, A. Muratore, L. Notargiacomo, S. Materazzi, R. Risoluti - Sapienza University of Rome
- 16.05 – 16.20 **O-FOTO-5** *Exploring metabolomics strategies for biomarkers of exposure to new psychoactive substances*
E. Castrignanò, V. Mongelli, F. Intranuovo, I. Iacobellis, M. Caputo, L. Sarcina, M. Catacchio, P. Bollella, C. Di Franco, G. Scamarcio, L. Torsi, E. Macchia - University of Bari
- 16.20 – 16.35 **O-FOTO-6** *An integrated LC-MS/MS strategy for suspect screening of NPS in saliva samples*
D. Serafini, M. Cirasola, I. Bracaglia, F. Bartolini, L. Chiodo, C. Montesano, M. Sergi - Sapienza University of Rome
- 16.35 – 16.50 **O-FOTO-7** *Application of a linear retention index method for the identification of non-psychoactive cannabinoids with a hand-portable capillary liquid chromatography system*
R. La Tella, F. Rigano, L. Mondello - University of Messina
- 16.50 – 17.05 **O-FOTO-8** *Biochar-based “in-vial” stir bar sorptive microextraction for steroid hormones determination in saliva*
V. Quarta, F. Merlo, C. Milanese, A. Profumo, A. Speltini - University of Pavia

AULA A PIANO TERRA

17.10 – 19.00 **ASSEMBLEA DELLA DIVISIONE DI CHIMICA ANALITICA**

Dalle 19.45 **CENA SOCIALE** presso Stazione Leopolda Via Francesco da Buti1
<https://maps.app.goo.gl/YTGyEDD8aUGiz1PF9>

Giovedì 11 Settembre 2025

Dalle 08.30 **Registrazione dei partecipanti**

AULA A – PIANO TERRA

Sessione Parallela: Sensori e Elettroanalitica (SENS-ELE) – Moderatori G. Marrazza e C. Zanardi

- 9:10 – 9:25 **O-SENS-29** *G-quartet hydrogel-based chiral luminescence: a supramolecular platform for quantum biocomputing and biosensing in the next era of quantum metrology*
D. Calabria, A. Pace, E. Lazzarini, M. Varone, M. Zein, M. Zangheri, M. Guardigli, S. Pieraccini, S. Masiero, M. Mirasoli - University of Bologna
- 9:30 – 9:45 **O-SENS-30** *Development of a magnetic nanoparticle-based immunoassay for glyphosate detection and remediation in water*
A. Zanut, M. Roverso, S. Pettenuzzo, P. Pastore, S. Bogialli - University of Padova
- 9:45 – 10:00 **O-SENS-31** *Exploring functionalized germanene-based nanomaterials for biosensing*
A. Bonanni, R. Lim, A. Ambrosi, Z. Sofer - University of Pavia
- 10:00 – 10:15 **O-SENS-32** *Hyaluronic acid coated solid lipid nanoparticles-functionalized QCM immunosensor for label-free haptoglobin detection: toward non-invasive monitoring of neurodegenerative diseases*
M. Lettieri, L. Talarico, M. Consumi, I. Clemente, G. Gabricci, A. Magnani, E. Landi, R. Moretti, A. Fort, V. Vignoli - University of Siena
- 10:15 – 10:30 **O-SENS-33** *Organic electrochemical transistors for sensing of redox-active molecules: operation principles and applications in wearable and portable devices*
I. Gualandi, F. Mariani, D. Arcangeli, F. Ceccardi, M. Tessarolo, F. Decataldo, V. Vurro, F. Melandri, D. Tonelli, B. Fraboni, E. Scavetta - University of Bologna
- 10:30 – 10:45 **O-SENS-34** *Towards precision nutrition: continuous monitoring of β -hydroxybutyrate via a wearable microneedles-based biosensor*
C. Tortolini, M. Caprio, **R. Antiochia** – Sapienza University of Rome
- 11.00 – 11:30 **Coffee Break**

Sessione Parallela: Sensori e Elettroanalitica (SENS-ELE) – Moderatori M. Innocenti e I. Palchetti

- 11:30 – 11:45 **O-ELE-1** *Electrocatalytic activity of Pd(II) complexes for oxygen reduction reaction on modified electrodes*
M. Bonechi, F. Montanari, I. Maggini, G. Pappaianni, S. Bitossi, C. Giovani, M. Savastano, M. Pagliai, A. Bianchi, M. Innocenti - University of Florence
- 11:45 – 12:00 **O-ELE-2** *Synthesis and characterization of Pt-modified NiAl layered double hydroxides for sensing applications*
L. S. Dolci, I. Gualandi, F. Mariani, M. Moglianetti, P. Pompa, E. Scavetta - University of Bologna
- 12:00 – 12:15 **O-ELE-3** *Indium leaching from semi-transparent perovskite solar cells: a voltammetric approach*
S. Orecchio, D. Amorello, S. Barreca, V. Ferrara, B. Pignataro, T. Fiore, A. Contino, A. Giuffrida, I. Pibiri, G. Arrabito - University of Palermo

12:15 – 12:30 **O-ELE-4** *Development of 3D printed metal leaf electrodes for electroanalytical applications*
M. Abate, N. Dossi - University of Udine

AULA A1– PRIMO PIANO

Sessione Parallela: Scienza delle Separazioni e Alimenti (SEP-ALI) – Moderatori M. Del Bubba e P. Donato

9:10 – 9:25 **O-SEP-ALI-20** *Quantification of Coenzyme Q10 and Vitamin K1 in microgreens, baby leaves, and mature forms of traditional Apulian Brassica vegetables*
M. Bianco, I. Losito, B. Leoni, P. Santamaria, C. D. Calvano, T.R.I. Cataldi - University of Bari Aldo Moro

9:30 – 9:45 **O-SEP-ALI-21** *A preliminary concept for untargeted, pre-targeted, and post-targeted analysis of extra virgin olive oil via 'dilute-and-inject' GC×GC-TOF-MS*
M. Galletta, M. Zoccali, S. Pantò, P. Q. Tranchida, L. Mondello - University of Messina

9:45 – 10:00 **O-SEP-ALI-22** *Production and chemical characterization of Passiflora edulis Sims hydroalcoholic extracts and quantification of isovitexin content*
A. Salvati, **D. Naviglio**, M. Masi, A. Cimmino, R. Marrazzo, M. Gallo - University of Naples Federico II

10:00 – 10:15 **O-SEP-ALI-23** *Development of a RPLC-APCI-FTMS method to quantify carotenoids in Apulian Brassica innovative vegetable products*
V. Cinquepalmi, I. Losito, B. Leoni, M. Renna, P. Santamaria, C. D. Calvano, T.R.I. Cataldi - University of Bari Aldo Moro

10:15 – 10:30 **O-SEP-ALI-24** *Polyphenolic profile by UHPLC-MS/MS for discrimination of olive cultivars employing machine learning-based classification models*
F. Eugelio, M. Mascini, E. Marone, F. Fanti, S. Palmieri, M. Sergi, M. Del Carlo, D. Compagnone - University of Teramo

10:30 – 10:45 **O-SEP-ALI-25** *Fast synthesis of molecularly imprinted polymer for selective extraction of phytoprostanes in food samples by high-resolution mass spectrometry analysis*
S. Palmieri, F. Eugelio, F. Della Valle, M. Tano, F. Fanti, M. Sergi, M. Mascini, M. Del Carlo, D. Compagnone - University of Teramo

10:45 – 11:00 **O-SEP-ALI-26** *Advanced online SPE approach coupled to HPLC-MS/MS: quantification of N-acylethanolamines in interfering biological matrices*
V. Greco, N. Gatti, A. Giuffrida - University of Catania

11:00 – 11:30 **Coffee Break**

Sessione Parallela: Scienza delle Separazioni e Alimenti (SEP-ALI) – Moderatori S. Furlanetto e M. Zoccali

11:30 – 11:45 **O-SEP-ALI-27** *Comprehensive lipidomic analysis to evaluate the effect of dioxins contamination on the lipid profile of cheese*
R. Zianni, F. Bernardo, F. Catano, A. Chiappinelli, V. Nardelli, M. Tomaiuolo, G. Di M. Campaniello – Istituto Zooprofilattico Sperimentale della Puglia e della Basilicata

11:45 – 12:00 **O-SEP-ALI-28** *LC-MS analysis of potential allergen migration from innovative biopolymer-based food packaging*
C. D. Calvano, V. Nettis, M. Bianco, A. V. Montefusco, R. A. Picca, M. Izzi, T. Cataldi - University of Bari Aldo Moro

- 12:00 – 12:15 **O-SEP-ALI-29** *Dietary risk assessment of phytosanitary products in white table grapes: chronic, acute and cumulative exposure*
G. Rinaldi, A. Ferracane, M. Zoccali, D. Donnarumma, L. Mondello - University of Messina
- 12:15 – 12:30 **O-SEP-ALI-30** *Stearin-based microcapsules of *Lactobacillus plantarum* and fish oils: a stable dual-action nutraceutical product*
G. Rizzo, E. Papa, C. Albertini, G. Putzolu, M. Ruocco, G. Gullifa, L. Notargiacomo, A. Muratore, C. Mazzoni, R. Cirilli, F. Romana Mammone, S. Materazzi, R. Risoluti - Sapienza University of Rome
- 12:30 – 12:45 **O-SEP-ALI-31** *Characterization of bioactive compounds in carob powder treated with different fermentation and roasting conditions*
G. Mattina, G. Cafeo, M. Russo, **E. Aprea**, P. Dugo, L. Lorenzi, R. Bottiroli - University of Trento

AULA B1 – PRIMO PIANO

Sessione Parallela: Green Analytical Chemistry (GREEN) – Moderatori A. Gentili e D. Monticelli

- 9:10 – 9:30 **KN-O-GREEN-1** *The search for new analytical tools in quality control and lifecycle monitoring of biodegradable plastics*
M. Mattonai, M. Filomena, F. Nardella, S. Gestì, G. Medaglia, E. Ribechini - University of Pisa
- 9:30 – 9:45 **O-GREEN-2** *Portable voltammetry: a rapid and efficient technique for determining UV filters in cosmetics: a comparative study with HPLC-PDA and HPLC-MS/MS*
E. M. Ricci, P. Inaudi, M. Perrucci, F. Velocci, A. Giacomino, V. Boscaro, M. Gallicchio, E. Ugazio, O. Abollino, M. Protti, N. Lumini, M. Locatelli, R. Mandrioli, L. Mercolini - University of Chieti-Pescara
- 9:45 – 10:00 **O-GREEN-3** *Rethinking peptide purification through a Replace–Reduce–Reuse strategy: Dimethyl Carbonate for sustainable downstream processing*
C. De Luca, C. Nosengo, M. Spedicato, L. Magagnato, G. Fogli, M. Carraro, W. Cabri, M. Macis, A. Cavazzini, S. Felletti, A. Ricci, M. Catani - University of Ferrara
- 10:00 – 10:15 **O-GREEN-4** *Improving emerging contaminant detection using a biodegradable film: bridging sustainability and analytical performances*
E. Ceccardi, M. Di Carro, E. Magi, B. Benedetti - University of Genoa
- 10:15 – 10:30 **O-GREEN-5** *Natural deep eutectic solvents as a green alternative for bisphenols and alkylphenols extraction from solid foodstuffs*
L. Croce, D. Fabiano, C. Palermo, D. Centonze - University of Foggia
- 10:30 – 10:45 **O-GREEN-6** *Development of a sustainable approach for fingerprinting analysis of natural products*
E. Trovato, F. Vento, D. Mangraviti, F. Rigano, H. A. Fakhry, L. Mondello, P. Dugo - University of Messina
- 10:45 – 11:00 **O-GREEN-7** *Using nitrogen carrier gas for boiling range distribution of petroleum products by GC-FID*
G. Micalizzi, L. Mondello - University of Messina
- 11:00 – 11:30 **Coffee Break**

Sessione Parallela: Green Analytical Chemistry (GREEN) – Moderatori E. Magi e D. Sciarrone

- 11:30 – 11:45 **O-GREEN-8** *Applications of Supercritical Fluid Chromatography as a Green Tool for Lipid Determination in Foodstuffs*
P. Donato, C. Reale, A. Satira, I. Bonaccorsi, P. Donato, L. Mondello - University of Messina
- 11:45 – 12:00 **O-GREEN-9** *Supercritical Fluid Extraction of Pesticides from Apples Using Sustainable Modifiers and Low-Pressure GC-MS Detection*
A. Arena, C. M. Zoccali, L. Mondello - University of Messina
- 12:00 – 12:15 **O-GREEN-10** *Sustainable polycaprolactone film for in situ in-vial microextraction of sexual hormones in environmental waters and biofluids*
F. Merlo, S. Anselmi, A. Speltini, C. Fontàs, E. Anticò, A. Profumo - University of Pavia
- 12:15 – 12:30 **O-GREEN-11** *Functionalized LEGO® bricks as modular platforms for green sample preparation*
L. Antonelli, M. Bartocci, N. Felli, M. G. De Cesaris, A. Gentili – Sapienza University of Rome
- 12:30 – 12:45 **O-GREEN-12** *From waste to value: green recovery of bioactive compounds from blueberry by-products for active packaging applications*
F. Alchera, C. Ceccone, M. Ginepro – University of Turin
- 12:45 – 13:10 **Cerimonia di chiusura e saluti**

SESSIONI POSTER

Lunedì 8 Settembre 14.00 – 15.00 **SESSIONE POSTER 1: CHEMO Chemiometria e Qualità del Dato** (P-CHEMO-01 - 09) e **SBIO Salute, Bioanalitica e Omics** (P-SBIO-01 – 31)

Martedì 9 Settembre 14.00 – 15.00 **2: ABC Ambiente e Beni Culturali** (P-ABC-01 - 26), **EQS Equilibri in Soluzione e Speciazione** (P-EQS-01 - 06) e **SENS Sensori e Biosensori** (P-SENS-01 - 34)

Mercoledì 10 Settembre 14.00 – 15.00 **SESSIONE POSTER 3: ELE Elettroanalitica** (ELE, P-ELE-01 - 03), **FOTO Forense e Tossicologia** (P-FOTO-01 - 04), **GREEN Green Analytical Chemistry** (P-GREEN-01 - 09), **SEPMS Scienza delle Separazioni e Spettrometria di Massa** (P-SEPMS-01 - 32) e **SPA Spettroscopia Analitica** (P-SPA-01 - 16)

ELENCO DEI CONTRIBUTI POSTER

Chemiometria e Qualità del Dato (CHEMO) POSTER SESSION 1 lunedì 8 settembre 14.00 – 15.00		
P-CHEMO-01	Enhancing SiMoT platform reliability through multivariate quality control	M. Caputo
P-CHEMO-02	Optimizing the synthesis of silica nanoparticles by Design of Experiments	N. Kassouf
P-CHEMO-03	Towards horse hoof trimming upcycling: a chemometric approach for waste characterization and metal ion contamination assessment	L. R. Magnaghi
P-CHEMO-04	ASCA (ANOVA Simultaneous Component Analysis) applied to multi-elemental data and polyphenolic profiles of sparkling Pecorino wines to assess the effects of winemaking process and aging time	L. Marsili
P-CHEMO-05	Traditional chemometric tools and artificial neural networks for the identification of the provenance of Tuscany agri-foods	R. Nardin
P-CHEMO-06	Verification of authenticity claims for Slovakian Tokaj wine: a combined analytical strategy based on EEM fluorescence spectroscopy and 3-way data modelling	P. Oliveri
P-CHEMO-07	Chemometric and electrochemical evaluation of ZnO–cellulose composites for antibacterial and photocatalytic applications	G. Puleo
P-CHEMO-08	Real-time monitoring of milk coagulation in Grana Padano production using in-line NIR spectroscopy and chemometric modeling	L. Strani
P-CHEMO-09	Characterization of secondary metabolites of Sicilian Rhus Coriaria by solid-phase microextraction coupled to gaschromatography	E. Trovato

Salute, Bioanalitica e Omics (SBIO) POSTER SESSION 1 lunedì 8 settembre 14.00 – 15.00		
P-SBIO-01	Microfluidic formulation and analytical characterization of lipid nanoparticles for mRNA-based vaccines	C. Agnello
P-SBIO-02	Targeting antibiotic resistance with a multi-component therapeutic: insights from untargeted proteomics	D. Aiello
P-SBIO-03	Quality assessment of SARS-CoV-2 vaccines by MicroNIR/Chemometrics	C. Albertini
P-SBIO-04	Targeted metabolomic analysis for the study of the correlation between the gut microbiota and multiple sclerosis	F. Bartolini
P-SBIO-05	From plastic to pathways: arachidonic acid cascade activation in cardiomyocytes exposed to virgin and aged microplastics	D. Biagini
P-SBIO-06	Oxylipins and polyunsaturated fatty acids in dried blood spot: a new window into heart failure disease	D. Biagini
P-SBIO-07	Untargeted proteomics of red blood cells as a strategy to elucidate aging-related changes	G. Cacciatore
P-SBIO-08	Phospho- and sphingo-lipidome of extracellular vesicles from pancreatic cancer cells	C. D. Calvano
P-SBIO-09	Sequential optimisation of a competitive Lateral Flow Immunoassay for the detection of aflatoxin B1 using a strategy based on experimental design	S. Cavalera
P-SBIO-10	A multiplex colourimetric lateral flow device for the detection of cortisol and cardiac troponin with “chiasm” response for monitoring the state of stress and cardiac distress	S. Cavalera
P-SBIO-11	Comprehensive characterization of seaweed extracts by LC-MS: insight into bioactive lipids and peptides	C. Cavaliere
P-SBIO-12	Target metabolomics for forensic analysis: biomarker identification of synthetic opioids using LC-MS/MS	L. Chiodo
P-SBIO-13	Development and validation of the UPLC-MS/MS method for the quantitative determination of 8 PFAS in human urine	I. Cursi
P-SBIO-14	Redefining heart failure diagnostics: a mass spectrometry-based approach to quantify natriuretic peptides	M. De Cristofaro
P-SBIO-15	Hyphenated analytical tools for lipidomic profiling of marine invertebrates of the phylum Mollusca	P. Donato

P-SBIO-16	A multi-omic and chemometric approach for the preliminary investigation of the effects of percutaneous electrolysis in athletes with low back pain	A. Fabbris
P-SBIO-17	Gaseous reference standard for breath analysis	L. Gagni
P-SBIO-18	Advanced analytical approaches for the analysis of biomarker as indicators of cancer and respiratory diseases	M. Galletta
P-SBIO-19	A proteomics-driven approach to drug repositioning in pediatric neurological disorders	A. Ghignone
P-SBIO-20	Analytical protocols for the chemical characterization of antibiotic potentiators into formulations of pharmaceutical interest	O. Giuffrè
P-SBIO-21	Quality assessment of Factor VIII/von Willebrand factor concentrates by a reliable and fully automated method for the estimation of vWF activity	G. Gullifa
P-SBIO-22	Urinary volatilome GC-MS analysis in plastic and electrical cable manufacturing workers: a study on occupational exposure and biomarkers	N. Interino
P-SBIO-23	From microplastics to molecular changes: a proteomic study in marine bioindicators	C. Lo Sardo
P-SBIO-24	Exhaled breath acetone: a non-invasive marker of disease severity across the spectrum of heart failure	T. Lomonaco
P-SBIO-25	Technological improvements on liquid biopsy platforms: towards one-step sample-to-quantification of biomarkers	V. Marassi
P-SBIO-26	Innovative approaches for the characterization of human albumin: rheological profile and thermogravimetric analysis coupled with chemometric techniques	S. Massimi
P-SBIO-27	Quantification using HPLC- DAD of targeted maytainsinoid: a new approach for pre-clinical studies	M. Perrucci
P-SBIO-28	Fast-gelling thermoreversible methylcellulose-based hydrogel for temperature-modulated and sustained drug delivery	F. Persano
P-SBIO-29	Towards sensitive chemiluminescent cardiac stress detection: optimization of platinum nanozyme systems	A. Placci
P-SBIO-30	Rapid evaporative ionization mass spectrometry for investigating environmental and anthropogenic pathways affecting lipid profile in cephalopods	C. Reale

Ambiente e Beni Culturali (ABC) POSTER SESSION 2 martedì 9 settembre 14.00 – 15.00		
P-ABC-01	Smoke as a tool and a risk: element emissions and health implications in beekeeping practices	M. L. Astolfi
P-ABC-02	Microplastics in indoor air: a dual-method approach for detection and quantification	L. Barlucchi
P-ABC-03	Evaluating matrix effects in microplastic analysis in sediments using Py-GC-MS	G. Biale
P-ABC-04	Chemical characterization, photochemical behaviour and environmental fate of agricultural technological products	P. Calza
P-ABC-05	The co-oxidation of proteins and lipids in mixed media paint layers	G. Caroti
P-ABC-06	On the Pb ²⁺ ions adsorption onto microplastics	S. Cataldo
P-ABC-07	Characterization of sediments and determination of potential contaminants of Ganzirri Lake (marine coastal lagoon; Sicily) by different instrumental techniques	F. Crea
P-ABC-08	Partitioning and mobility of contaminants of emerging concern and potentially toxic elements in complex aquatic systems: an experimental study between Italy and Thailand	F. Cristaudo
P-ABC-09	A new methodological analytical approach to the study of environment, land use and exploitation of natural resources between the 5th and 3rd millennia BC in the Late Prehistoric archaeological site of Colombare di Villa di Negrar (VR)	P. Fermo
P-ABC-10	Bi(or not too Bi)o plastics: environmental issues and analytical challenges	M. Filomena
P-ABC-11	Employing QuEChERS to monitor emerging pollutants in Antarctica by LC-MS/MS and LC-HRMS	J. Gambetta Vianna
P-ABC-12	Designing innovative photocatalysts for nitrogen photofixation: a step towards green energy	F. Merlo
P-ABC-13	Concerns linked to highly dispersed iron anchored within g-C ₃ N ₄ , is it a truly promising material to drive heterogeneous photo-Fenton treatment?	M. Minella
P-ABC-14	Monitoring trace elements and legacy organic contaminants in the environment using bats as non-invasive bioindicators	D. Monticelli
P-ABC-15	Development and analytical evaluation of eco-friendly graphene oxide nanocomposites for the removal of PFAS from aqueous solutions	A. Mumtaz
P-ABC-16	Occurrence of nonyl- and octylphenol in offshore seawater samples along the Amerigo Vespucci Round-The-World Tour	L. Notargiacomo

P-ABC-17	Preliminary findings on PAHs, PBDEs and DEHP in ocean waters: insight from the Sea Care project aboard the Amerigo Vespucci during the world tour 2022-2024	L. Notargiacomo
P-ABC-18	Ambient air quality monitoring: PFAS detection	D. Peroni
P-ABC-19	Perfluoroalkyl acids (PFAAs) occurrence in allochthonous catfishes from the lower stretch of the Po River (Northern Italy)	G. Perra
P-ABC-20	Valorization of (waste)biomass for solar green H ₂ production using novel sustainable TiO ₂ -based photocatalysts	V. Quarta
P-ABC-21	Characterization by analytical pyrolysis of musical instruments in paulownia wood subjected to different surficial carbonization treatments	A. Rombolà
P-ABC-22	Untargeted analysis of emerging contaminants in wastewater from Mario Zucchelli Station (Antarctica) and Terra Nova Bay seawater	E. Scalabrin
P-ABC-23	Small microplastics (SMPs), plastic additives (PAs) and Per-Polyfluoroalkyl Substances (PFAS) in 6 European lakes	E. Scalabrin
P-ABC-24	Tracking trace elements in biofouled plastics: a LA-ICP-MS approach	D. Spanu
P-ABC-25	Ion-imprinted polymers for lithium: selectivity, performance, and real-world application	V. Testa

Equilibri in Soluzione e Speciazione (EQS) POSTER SESSION 2 martedì 9 settembre 14.00 – 15.00		
P-EQS-01	Unravel the role of DOM in the photodegradation of sulfamethoxazole in real water matrices	M. A. Andino Enriquez
P-EQS-02	Metal/tetrabranched peptide adducts to mimic the superoxide dismutase: design and redox properties	S. Berto
P-EQS-03	Inter-lab assessment of DNA binding affinity metrics: a fluorescence-based comparative study	T. Biver
P-EQS-04	Setting the ground: characterizing rice field environments for nanoparticles based arsenic decontamination through a chemical speciation approach	C. Bretti
P-EQS-05	Evaluation of aminomethylphosphonic acid-dimethyltin(IV) complex species formation in synthetic seawater and plasma	R.M. Cigala
P-EQS-06	The specific interaction theory approach in the study of the protolysis of bicine and its complexes with the Gd ³⁺ ion. Beyond the role of a biological buffer	A. S. Sammarco

Sensori e Biosensori (SENS) POSTER SESSION 2 martedì 9 settembre 14.00 – 15.00		
P-SENS-01	In vivo quantification of biological drugs using electrochemical biosensors	M. Alfonsini
P-SENS-02	Iniferter-assisted photo-polymerization for MIP fabrication on gold electrode: towards efficient sensing of salicylic acid	M. Asif
P-SENS-03	Synergizing analytical chemistry and engineering. towards the optimization of a commercial multiparameter device for online water quality monitoring	R. Biesuz
P-SENS-04	Affordable microfluidic-electrochemical CRISPR-based platform for rapid, on-site bacterial DNA detection	A. G. Carota
P-SENS-05	Electric field cycling enhances stability and reduces polarization dispersion in physisorbed antibody bilayers	M. Catacchio
P-SENS-06	Development of amperometric biosensors for the detection of glucose in industrial settings	A. Cimino
P-SENS-07	A sweat-based sensing system for non-Invasive kidney function assessment	E. De Gregorio
P-SENS-08	CO ₂ laser-based approaches to produce nanostructured transducers for 3rd generation integrated biosensors assembly	F. Della Pelle
P-SENS-09	An innovative photo-iniferter polymerization approach for integrating Molecularly Imprinted Polymers (MIPs) with nanostructured sensors	T. Di Giulio
P-SENS-10	BESIDES (Biomolecular Signature DETection System): a lab-on-chip-based analytical platform for life biomarkers detection in astrobiology investigations	A. Emamiamin
P-SENS-11	Synthesis of polyphenol-capped gold nanoparticles (AuNPs) and integration in polyphenol-based films: an effective strategy of signal enhancement for electrochemical sensing applications	F. Gagliani
P-SENS-12	Innovative analytical strategies for multiallergen detection: portable genosensing platforms based on different transduction and labelling mechanisms	M. Giannetto
P-SENS-13	Evaluating paper-based electrochemical sensor for dual miRNA detection in triple-negative breast cancer	A. Glovi
P-SENS-14	Biosensor for Xylella fastidiosa detection	I. Iacobellis
P-SENS-15	Rapid and ultra-sensitive detection of SARS-CoV-2 subgenomic RNA using a SiMoT bioelectronic platform based on single-molecule large-transistor technology	F. Intranuovo
P-SENS-16	Exploiting on-demand 3D-printing to develop an integrated device for the remediation of diclofenac in water and consequent evaluation	G. Iula

P-SENS-17	Molecularly Imprinted Polymers for environmental monitoring: a dopamine-based sensor for levofloxacin detection in water	A. Lo Presti
P-SENS-18	Enhancing cannabinoid detection: the crucial role of boric acid complexation in electroanalytical determination	F. Lugli
P-SENS-19	Polydopamine-based hydrogel electrodes: flexible, edible, and free-standing platforms for glucose biosensing	V. Marchianò
P-SENS-20	Development of colorimetric sensing for selective detection of cadmium in food samples	G. Marrazza
P-SENS-21	Development of a nucleic acid based lateral flow-based biosensor for the early detection of ovarian cancer-specific microRNAs	C. Mattioli
P-SENS-22	Electrochemical immunosensor targeting Collagen Type I $\alpha 1$: a tool for personalized colorectal cancer care	A. Miglione
P-SENS-23	Innovative electrochemical sensor for the miRNA-based screening of Alzheimer's disease	E. Paratore
P-SENS-24	Amperometric immunosensor based on microneedles arrays for the detection of amyotrophic lateral sclerosis biomarkers in human interstitial fluid	A. Puzzello
P-SENS-25	Cell-free biosensing amplification by Hybridization Chain Reaction (HCR)	C. Scandurra
P-SENS-26	Optical fiber grating sensors coupled to polyserotonin imprinted bio-polymers for the development of antibody-free biosensing systems	S. Scarano
P-SENS-27	CO ₂ -laser as an emerging tool to generate nanostructured optically active sensing surfaces for paper-based analytical device	A. Scroccarello
P-SENS-28	Electrochemical biosensor for the quantification of urea in dialysate and blood	L. Sembranti
P-SENS-29	Monitoring salivary biomarkers in astronauts during spaceflight: a versatile and reusable portable microfluidic biosensor based on functionalized superparamagnetic microbeads for performing multiplex chemiluminescent immunoassays	S. R. Shariati Pour
P-SENS-30	Water-phase sonochemically dispersed nanostructured biochar as sustainable redox materials for biosensors development	A. Sierra Padilla
P-SENS-31	Biomarker discovery and point-of-care testing in faecal matrix for non-invasive colorectal cancer diagnosis	L. Toma
P-SENS-32	Qualitative analysis of some pharmaceutical and biological compounds, using fuel cell and chemometrics	M. Tomassetti
P-SENS-33	From lignin to sensors: apocynin as a novel functional monomer for electrochemical glucose detection	M. Vit

Elettroanalitica (ELE)		
POSTER SESSION 3 mercoledì 9 settembre 14.00 – 15.00		
P-ELE-01	A one-pot polydopamine-assisted strategy for robusted and reproducible immobilization of PQQ-GDH on graphite electrodes for glucose sensing	B. M. I. Cassano
P-ELE-02	Voltammetric approach to detect CO ₂ in gas phase by a DES / acid-base indicator modified SPCE	F. Zanette
P-ELE-03	Electrochemical strategies for urea quantification toward green wastewater valorisation	L. Quadrini

Forense e Tossicologia (FOTO)		
POSTER SESSION 3 mercoledì 9 settembre 14.00 – 15.00		
P-FOTO-01	Identification of New Psychoactive Substances Using a Non-Target Approach: Is It Really Impossible with a Triple Quadrupole Mass Analyzer?	F. Gosetti
P-FOTO-02	Fragmentation MS/MS characterization of novel triazole-based HO-1 inhibitors	V. Greco
P-FOTO-03	HPLC-MS/MS analysis of drug consumption during New Year holidays in Australia	D. Nardiello
P-FOTO-04	Soft Independent Modeling of Class Analogies for the screening of New Psychoactive Substances through UPLC-HRMS/MS	M. Sergi

Green Analytical Chemistry (GREEN)		
POSTER SESSION 3 mercoledì 9 settembre 14.00 – 15.00		
P-GREEN-01	DoE for bio-based support: experimental design to identify hydrogel support bio-based for microgreens cultivation	V. Cimino
P-GREEN-02	Development and validation of a novel SUPRAS-based extraction method for comprehensive urinary biomarker screening	R. De Santo
P-GREEN-03	Coupling the potential of biochar with innovative analytical settings for a sustainable sample preparation: vial-wall sorptive extraction of steroid contaminants from real waters	F. Merlo
P-GREEN-04	Development of an automated and sustainable extraction method for the analysis of pesticides in Cannabis Sativa L. inflorescences	G. Micalizzi
P-GREEN-05	Low-Cost and eco-friendly adsorbents from local waste: lead ions removal by Prunus dulcis hull	A. Pettignano
P-GREEN-06	A green analytical approach to monitoring the chemical upcycling of PET waste	G. Putzolu
P-GREEN-07	Supercritical fluid chromatography for high-throughput quantification of target furocoumarins in Citrus essential oils	C. Reale
P-GREEN-08	Optimized zeolite synthesis and application in microextraction systems for heavy metal removal from water	F. Ruggieri
P-GREEN-09	Hydrocarbon oil index: two novel approaches to scale down and automate the C ₁₀ -C ₄₀ analysis	F. Stropeni

Scienza delle Separazioni e Spettrometria di Massa (SEPMS) POSTER SESSION 3 mercoledì 9 settembre 14.00-15.00		
P-SEPMS-01	Mass spectrometry for the environmental surveillance of nephrotoxic antibiotic pollutants	S. Arpaia
P-SEPMS-02	Identification of steroid hormones transformation products in wastewater samples from a combined macrophyte pond-constructed wetland system based in Gran Canaria (Spain) using UHPLC-MS-QToF	G. Bonaccorso
P-SEPMS-03	Assessing the organoleptic quality of "Pistacchio Verde di Bronte" pastes using GC-IMS	M. Bordiga
P-SEPMS-04	Monitoring the presence of <i>Ostreopsis cf. ovata</i> in marine protected areas along Campania coasts: Gaiola, Ischia, Vivara and Procida	M. Carelli
P-SEPMS-05	Analysis of cereulide in food using triple quadrupole mass spectrometer	M. Casanova
P-SEPMS-06	Hydrophilic interaction liquid chromatography and high-resolution MS for the amino acid profiling of Apulian landraces of barattiere fruits (<i>Cucumis melo</i>)	D. Coniglio
P-SEPMS-07	The contribution of analytical pyrolysis to the molecular characterisation of pollens	D. Fabbri
P-SEPMS-08	Unveiling photoinduced transformation pathways of understudied emerging contaminants using an optimized high-resolution mass spectrometry workflow	F. Cristaudo
P-SEPMS-09	"From field to barrel": carbon isotope analysis of Aceto Balsamico Tradizionale di Modena (ABTM) production chain	V. D'Eusanio
P-SEPMS-10	A comprehensive HRMS-LRMS strategy for quali-quantitative profiling of plant secondary metabolites in Brassicaceae-derived matrices.	A. Di Bernardo
P-SEPMS-11	Post-harvest metabolomic profiling of Saffron by UHPLC-Q-Orbitrap-MS/MS coupled with multivariate analysis	F. Fanti
P-SEPMS-12	Liquid-gas chromatography-mass spectrometry approach for the analysis of 16 PAHs in Extra Virgin Olive Oil	A. Ferracane
P-SEPMS-13	The revenge of leftovers: investigation of antioxidant potential and bioactive compounds in fruit waste by means of spectrophotometric methods and untargeted UHPLC-HRMS approaches	C. Finotello
P-SEPMS-14	Identification of the ibuprofen transformation products formed by different degradation processes	F. Gosetti
P-SEPMS-15	Detection of pesticide residues in light cannabis flowers using quick extraction techniques and an extractive-liquid sampling electron ionization-mass spectrometry system	G. Grasselli

P-SEPMS-16	Comparison of dried thyme from different geographical locations with GC-TOFMS and software tools designed to rapidly determine similarities and differences	G. F. Labella
P-SEPMS-17	Fully automated cryogen-free analysis of ethylene oxide and 2-chloroethanol in contaminated sesame seeds using headspace-trap with multi-step enrichment (MSE) GC-MS	D. Morosini
P-SEPMS-18	Investigating the potential of electrospray ionisation Orbitrap mass spectrometry for stable isotope ratio analysis at natural variation levels, using nitrate as a model	A. Munteanu
P-SEPMS-19	Simultaneous determination of (lipo)phenolic compounds in olive oil by-products by dual-injection single-run LC-MSMS analysis	D. Nardiello
P-SEPMS-20	Analytical innovation in the qualitative classification of saffron	D. Naviglio
P-SEPMS-21	LC-LEI-QToF-MS detection of PAH photo oxidative markers: a new frontier in the search for life on Mars	G. Nevola
P-SEPMS-22	6:2 Fluorotelomer alcohol adsorption on functionalized MCM-41	F. P. Paci
P-SEPMS-23	Employing ballistic gradients, vacuum jacketed columns and benchtop multi reflecting time-of-flight (MRT) to increase lipidomic throughput whilst maintaining highly confident identifications	A. Palmese
P-SEPMS-24	Field deployable ion trap MS for direct and SPME MS and MS/MS analysis: beyond the laboratory	D. Peroni
P-SEPMS-25	Use of primary indicators such as elemental composition and strontium isotope ratio ($^{87}\text{Sr}/^{86}\text{Sr}$) in industrial hemp for geographic traceability purposes	M. Rivi
P-SEPMS-26	Formulation and characterization of a functional kombucha beverage enriched with Ziziphus jujuba	F. Sabatini
P-SEPMS-27	GC-FTIR analysis of hydrocarbon mixtures and fuel contaminants. Discrimination of closely related compounds via spectral database matching and band chromatograms	T. M. G. Salerno
P-SEPMS-28	Biological assays of specific terpene families after preparative multidimensional gas chromatography	D. Sciarrone
P-SEPMS-29	Isolation of mg amounts of ovatoxin-a from Ostreopsis cf. ovata	V. Tegola
P-SEPMS-30	Chemical characterization of macroalgae with a focus on antioxidant molecules and lipid components	F. Vento
P-SEPMS-31	Green extraction of volatile and non-volatile of ten carcinogenic nitrosamines in food samples and determination by UHPLC-Q-Orbitrap-MS	R. Zianni
P-SEPMS-32	Application of cryogenic zone compression GC-MS for analyzing 16 polycyclic aromatic hydrocarbons in Extra Virgin Olive Oil	M. Zoccali

Spettroscopia Analitica (SPA) POSTER SESSION 3 mercoledì 9 settembre 14.00 – 15.00		
P-SPA-01	ICP-MS-based multi-element analysis of herbal teas and infusions: implications for consumer safety	M. L. Astolfi
P-SPA-02	The L-Cysteine route to green acid copper electrodeposition	F. Biffoli
P-SPA-03	Spectroscopic Investigation of α - and β -PdHx Phase Formation during Palladium Electrodeposition	M. Bonechi
P-SPA-04	Analytical Spectroscopic Investigation on the Recovery of Rare Earth Elements Using Chitosan as a Sorbent Under Controlled pH Conditions.	G. Casula
P-SPA-05	Development of silver-based nanoantimicrobials for food packaging application: from the synthesis to the antibacterial activity	V. De Marzo
P-SPA-06	Banana peel extract as a green source for the preparation of Ag- and Ce-based nanomaterials. Characterization and food packaging application	N. Ditaranto
P-SPA-07	XPS characterization of Nd and Gd compounds.	M. Fantauzzi
P-SPA-08	Fast and Sustainable Metal Analysis in Galvanic Solutions via XRF: A Calibration Approach	W. Giurlani
P-SPA-09	Development of a Sustainable Colorimetric Assay for the Detection of Bioactive Compounds in Food Waste Matrices: A Case Study on Dopamine in Banana Peel	M. Minunni
P-SPA-10	Electrodeposition and Characterization of Ni–Mn–As Alloy on Silicon for High-Performance Oxygen Evolution Reaction (OER) Electrodes	G. Pappaianni
P-SPA-11	Electroplating in the Presence of Microplastics: An Analytical Spectroscopic Approach to Investigate Their Influence on Copper Deposition	G. Pappaianni
P-SPA-12	Mixed Cu, Zn hydroxycarbonates as catalyst precursors for CO ₂ hydrogenation: a spectroscopic study	R. P. Picca
P-SPA-13	A Design of Experiments-based approach in the synthesis of DNA-templated copper nanoclusters	F. Spiaggia
P-SPA-14	Highly fluorescent DNA-templated copper nanoclusters as optical probe for quantitative detection of pathogenic DNA by a rapid ultra-facile CRISPR/Cas12a-based assay	F. Spiaggia
P-SPA-15	Analytical spectroscopic characterization of green chitosan/copper composites for food packaging applications	M. C. Sportelli