



INTERNATIONAL CONFERENCE ON MICROPLASTIC POLLUTION IN THE MEDITERRANEAN SEA

ISCHIA (NA), OCTOBER 19TH - 22TH 2025
HOTEL CONTINENTAL

SUNDAY - OCTOBER 19th

4:30 PM 6:00 PM Registration

Conference Introduction **Maurizio Avella** **Institute of Polymers, Composites and Biomaterials - CNR, IT**

6:00 PM 7:00 PM **Grammenos Mastrojeni** **Union for the Mediterranean, ES**

7:00 PM 8:30 PM WELCOME PARTY

MONDAY - OCTOBER 20th

8:30 AM 9:00 AM Registration

Chairwoman **Mariacristina Cocca** **Institute of Polymers, Composites and Biomaterials - CNR, IT**

9:00 AM 9:30 AM **Edoardo Bemporad** **Institute of Polymers, Composites and Biomaterials - CNR, IT** **Welcome & Introduction**
Silvestro Greco **Stazione Zoologica Anton Dohrn, IT**

9:30 AM 10:00 AM **Andy Booth** **Department of Climate and Environment - SINTEF OS, NO** **The Importance of Plastic Additive Chemicals in Hazard Assessment of Micro- and Nanoplastic**

10:00 AM 10:15 AM **Francesca Coccia** **DISEGS Department - University G. d'Annunzio of Chieti-Pescara, IT** **Polystyrene enhances the release of Cu²⁺ and Zn²⁺ ions from metal oxides under UV light: implications for microplastic-mediated toxicity in marine systems**

10:15 AM 10:30 AM **Daura Vega Moreno** **Chemistry Department - University of Las Palmas de Gran Canaria, ES** **Origin, fate and transport of microplastics in the Canary region down to 1200 meters depth**

10:30 AM 10:45 AM **Evelia Schettini** **Department of Soil, Plant and Food Sciences - University of Bari, IT** **Environmental potential risk of microplastic pollution due to agricultural plastics: a case study in Apulia region**

10:45 AM 11:00 AM **Massimiliano Mariani** **Institute of Intelligent Industrial Technologies and Systems for Advanced Manufacturing -CNR, IT** **Environmental impact of fibrous microplastics emitted from textiles during washing under the life cycle assessment framework**

11:00 AM 11:30 AM COFFE BREAK

Chairman **Joao Frias** **Marine and Freshwater Research Centre - Atlantic Technological University, IE**

11:30 AM 12:00 PM **Maria Cristina Fossi** **Department of Physical, Earth and Environmental Sciences - University of Siena, IT** **Biodiversity at Risk in the SPAMI Pelagos Sanctuary: the Impact of Marine Litter on Biota**

12:00 AM 12:15 AM **Francesca Garaventa** **Institute of Anthropic Impact and Sustainability in the Marine Environment - CNR, IT** **Early biofilm development in biodegradable and traditional plastics through a mesocosm approach**

12:15 AM 12:30 AM **Alessandro Cau** **Department of Life and Environmental Sciences - University of Cagliari, IT** **Marine heat waves can modulate the effects of microplastics on microbial communities and biogeochemical cycling in coastal sediments**

12:30 AM 12:45 PM **Teodora Babos** **National Institute of Marine Geology and Geo-ecology, RO** **Microplastics in fish species from the romanian deltaic coast**

12:45 PM 1:00 PM **Giorgia Sciotto** **Department of Chemistry - University of Bologna, IT** **Chemometrics and hyperspectral imaging for a standardized and rapid monitoring of microplastics in the environment**

1:00 PM 2:30 PM LUNCH



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Chairman		Emanuele Fiore	Institute of Polymers, Composites and Biomaterials - CNR, IT	
2:30 PM	3:00 PM	Roberto Rosal	Department of Chemical Engineering - University of Alcalá, ES	Impacts of Micro- and Nanoplastics on Organisms and Ecosystems: Bridging Knowledge Gaps in Pollution Research
3:00 PM	3:15 PM	Anna Martinez	Scuola Superiore Meridionale, IT	Microplastic detection in soil by THz Time-Domain Hyperspectral Imaging combined with Unsupervised Learning Analysis
3:15 PM	3:30 PM	Sara Criollo	Department of the Built Environment - Aalborg University, DK	Detection of microplastics in environmental compartments near a traffic-intensive road
3:30 PM	3:45 PM	Achu Kuriakose	Department of Pure and Applied Sciences - University of Urbino, IT	Mmicro and nanoplastics as evolving contaminant carriers: Benzodiazepine sorption on virgin, aged and biofilm-coated particles characterized by MOI-LEI-QQQ MS
3:45 PM	4:00 PM	Milica Velimirovic	Flemish Institute for Technological Research, BE	Progress in analytical strategies for micro- and nanoplastics detection and characterisation
4:00 PM	4:30 PM	COFFEE BREAK		
Chairwoman		Margherita Ferrante	Department of Medical, Surgical and Advanced Technologies “G.F. Ingrassia” - University of Catania, IT	
4:30 PM	4:45 PM	Stefania Gorbi	Department of Life and Environmental Sciences - Marche Polytechnic University, IT	Chemical characterization and biological effects of leachates from commercial and naturally weathered plastics
4:45 PM	5:00 PM	Jacopo La Nasa	Department of Chemistry and Industrial Chemistry - University of Pisa, IT	Exploring the potential of one-pot microwave-assisted pretreatments coupled with Py-GC-MS for the quantification of MPs and associated contaminants
5:00 PM	5:15 PM	Andara Manage Shashini Methsara	Department of Chemistry - University of Kelaniya, LKA	Microplastic Contamination in water and sediment in Anawilundawa Mangrove restoration site, Sri Lanka
5:15 PM	5:30 PM	Leonardo Barlucchi	Department of Chemistry and Industrial Chemistry - University of Pisa, IT	Breathing plastic: quantifying indoor airborne microplastics in industrial workplaces using Py-Gc-MS and fluorescence microscopy
5:30 PM	5:45 PM	Viktoria Parobkova	Central European Institute of Technology - Brno University of Technology, CZ	X-ray computed tomography: a novel approach for investigating microplastics in the fish digestive system
5:45 PM	6:00 PM	Valentina Giglio	Institute of Biomolecular Chemistry - CNR, IT	From plastic to soil: tracing the leaching of additives from biodegradable mulch films into the surrounding soil
6:00 PM	7:00 PM	POSTER SESSION		
TUESDAY - OCTOBER 21 st				
Chairman		Roberto Rosal	Department of Chemical Engineering - University of Alcalá, ES	
9:00 AM	9:30 AM	Nicolas Keller	Institute of Chemistry and Processes for Energy, Environment and Health - CNRs/UdS, FR	Light-Driven Advanced Oxidation Processes as Sustainable Technologies for Remediation and Upcycling of Micro/Nanoplastics
9:30 AM	9:45 AM	Annamaria Vujanović	University of Maribor, SL	Advanced cascade treatment system for retention and elimination of microplastics from wastewater effluent
9:45 AM	10:00 AM	Silvia Merlino	Institute of Marine Sciences - CNR, IT	Preventing microplastic formation: the EPIC project’s integrated response to marine macrolitter accumulation
10:00 AM	10:15 AM	Immacolata Liotta	Institute of Polymers, Composites and Biomaterials - CNR, IT	Degradation studies of biodegradable polymers in simulated marine environments
10:15 AM	10:30 AM	Silvia Galafassi	Water Research Institute - CNR, IT	Plastic degradation and biofilm formation in freshwater environments: insights from short- and long-term studies
10:30 AM	10:45 AM	Stefania Piarulli	SINTEF Ocean, NO	Towards a smarter aquaculture: safe and sustainable by design approaches to reduce microplastic emissions from nets and ropes
10:45 AM	11:00 AM	Davide Poletto	Venice Lagoon Plastic Free, IT	‘Ghost boats’ in venice: environmental concerns, green chemical fingerprint, circular and sustainable end-of-life-solutions
11:00 AM	11:30 AM	COFFEE BREAK		



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Chairman		Andy Booth	Department of Climate and Environment - SINTEF OS, NO	
11:30 AM	12:00 PM	Giuseppe Suaria	Institutes of Marine Research - CNR, IT	Occurrence, Sources, Fate, Accumulation and Transport Dynamics of Textile Fibres in Oceanic Environments
12:00 AM	12:15 AM	Stefania Federici	Department of Mechanical and Industrial Engineering - University of Brescia, IT	True-to-life microplastics: bridging laboratory and environmental relevance
12:15 AM	12:30 AM	Gabriela Kalcikova	Faculty of Chemistry and Chemical Technology - University of Ljubljana, SI	Biodegradable but persistent? Insights into the environmental implications of microplastics from biodegradable plastics
12:30 AM	12:45 AM	Erika Baldini	Department of Life Sciences and Biotechnology - University of Ferrara, IT	Microplastics in mussels (<i>Mytilus Galloprovincialis</i>): a nationwide survey of marine pollution in italian coastal waters
12:45 AM	13:00 AM	Sara Vencato	Institute of Anthropic Impact and Sustainability in the Marine Environment - CNR, IT	Imprinted by plastic: tracing site-specific microplastics and phthalates in <i>Parapenaeus Longirostris</i>
1:00 PM	2:30 PM	LUNCH		
Chairman		Nicolas Keller	Institute of Chemistry and Processes for Energy, Environment and Health - CNRs/UdS, FR	
2:30 PM	3:00 PM	Margherita Ferrante	Department of Medical, Surgical and Advanced Technologies "G.F. Ingrassia" - University of Catania, IT	Micro and Nano-Plastics a new Concern for Public Health?
3:00 PM	3:15 PM	Eloisa Toscan Massignam	Istituto Zooprofilattico Sperimentale delle Venezie, IT	Unmasking the resistome on microplastics in marine habitats: potential routes of antibiotic resistance to humans via shellfish
3:15 PM	3:30 PM	Giulia Nannini	Department of Experimental and Clinical Medicine - University of Florence, IT	Impacts of nano and microplastic mixtures on the microbiota-immunity axis in C57BL/6J wild-type mouse model
3:30 PM	3:45 PM	Maria Della Valle	Institute of Crystallography - CNR, IT	Molecular insights into protein recognition and toxicological mechanisms of nano-plastics
3:45 PM	4:00 PM	Serena Ducoli	Department of Mechanical and Industrial Engineering - University of Brescia, IT	From biomolecules to biofouling: the broad-spectrum adsorption capability of true-to-life micro- and nanoplastics
4:00 PM	4:30 PM	COFFEE BREAK		
Chairman		Giuseppe Suaria	Institutes of Marine Research - CNR, IT	
4:30 PM	4:45 PM	Gea Oliveri Conti	Department of Medical, Surgical and Advanced Technologies "G.F. Ingrassia" - University of Catania, IT	A correct waste management for the health protection: a focus on microplastics
4:45 PM	5:00 PM	Maria Teresa Gentile	Department of Biology - University of Naples Federico II, IT	Polystyrene nanoparticles induce DNA damage and apoptosis in HeLa cells
5:00 PM	5:15 PM	Vincenzo Donnarumma	Department of Life and Environmental Sciences - University of Cagliari, IT	Microplastics alter microbial communities and biogeochemical cycling in coastal sediments
5:15 PM	5:30 PM	Chiara Maria Motta	Department of Biology - University of Naples Federico II, IT	Polystyrene toxicity: comparative effects of microbeads of 1 and 3 micrometers on <i>Xenopus laevis</i> embryo development
5:30 PM	7:00 PM	POSTER SESSION		
	8:00 PM	TRANSFER FOR THE SOCIAL DINNER		



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WEDNESDAY - OCTOBER 22nd

Chair		Gennaro Gentile	Institute of Polymers, Composites and Biomaterials - CNR, IT	
9:00 AM	9:30 AM	Joao Frias	Marine and Freshwater Research Centre - Atlantic Technological University, IE	Fashion Fades, Microplastics are Eternal – A Literature Review into the Colours of Microplastic Fibres Worldwide
9:30 AM	9:45 AM	Giuseppe Milano	Department of Chemical, Materials and Production Engineering - University of Naples Federico II, IT	Modeling nanoplastic in action: molecular structure, dynamics, interactions, and environmental fate
9:45 AM	10:00 AM	Luca Fambri	Department of Industrial Engineering - University of Trento, IT	4 years monitoring plastics contamination in fresh water of lake Garda with Seabin – seasonal effects, microplastics and alien species
10:00 AM	10:15 AM	Isam Sabbah	Department of Biotechnology Engineering - Braude, College of Engineering, IL	Nature-inspired physicochemical process: Jellyfish mucin for efficient removal of nanoplastics from water
10:15 AM	10:30 AM	Valentina Marturano	Institute of Polymers, Composites and Biomaterials - CNR, IT	Functionalization of natural polymers with vanillic acid derived from pet waste
10:30 AM	10:45 AM	Banu Yoho	Ege University Institute of Nuclear Sciences, TR	An Innovative Method for Microplastic Studies in Marine Organisms: Radiolabeling and Radioimaging (PET)
10:45 AM	11:00 AM	Raffaele Bruschi	Department of Chemical and Pharmaceutical Sciences - University of Trieste, IT	Enzymatic synthesis and structural modeling of bio-based oligoesters as an approach for fast screening of marine biodegradation and ecotoxicity
11:00 AM	11:30 AM	COFFEE BREAK		
11:30 AM	11:45 AM	Teresa Cecchi	ITT G. e M. Montani	Green and Rational microplastics assessment in sand: a best practice proposal with safe and effective density separation media
11:45 AM	12:00 AM	Esther Kentin	Leiden Law School - Leiden University, NL	The right of consumers to information: what should we know about plastic?
12:00 AM	12:15 AM	Filippo Vaccari	Department for Sustainable Food Proces - Università Cattolica del Sacro Cuore, IT	Microplastics and human gut health: in-vitro fermentation and shotgun metagenomics reveal microbiome and functional shifts in healthy and ALS individuals
12:15 AM	12:30 AM	Federico Olivieri	Institute of Polymers, Composites and Biomaterials - CNR, IT	AWARDS CERIMONY
		Mariacristina Cocca	Institute of Polymers, Composites and Biomaterials - CNR, IT	CONCLUSION



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POSTER LIST

P1	Lorena Affatato	Institute of Polymers, Composites and Biomaterials - CNR, IT	Impact of micro and nano plastics in our life
P2	Saraì Agustin Salazar	Institute of Polymers, Composites and Biomaterials - CNR, IT	From Soil to Sea: Environmental Degradation of PLA–Glass Fibre Composites
P3	Rachid Amara	Université du Littoral Côte d'Opale - FR	Emergence and sustainability of bioplastics in the maritime sector: environmental, economic, and social insights
P4	Roberto Avolio	Institute of Polymers, Composites and Biomaterials - CNR, IT	Vegetable based water resistant coatings for the realization of sustainable food packaging and containers: results from the “NEW SKIN” project
P5	Irene Bonadies	Institute of Polymers, Composites and Biomaterials - CNR, IT	Algae-loaded microparticles for plastic capture and nutrient removal for environmental remediation
P6	Chiara Anastasia Bruno	Institute for Marine Biological Resources and Biotechnology - CNR, IT	Occurrence of anthropogenic particles in sea cucumbers from the Capo Peloro Natural Reserve
P7	Raffaele Bruschi	Department of Chemical and Pharmaceutical Sciences - University of Trieste, IT	Towards regulatory readiness: adapting microplastic monitoring strategies in water services for upcoming EU directives
P8	Erika Caianiello	Institute of Polymers, Composites and Biomaterials - CNR, IT	Bacterial cellulose as a sustainable adsorbent for pollutants and microplastics in water
P9	Claudia Campanale	Italian National Institute of Health, IT	Indoor airborne microplastics: insights from a literature review study
P10	Rachele Castaldo	Institute of Polymers, Composites and Biomaterials - CNR, IT	Green biomass-derived porous systems: multifunctional and lightweight materials
P11	Antonia Cerbone	Institute of Polymers, Composites and Biomaterials - CNR, IT	Efficient removal of dyes using bio-based hyper-crosslinked resins
P12	Laura Ciarralli	Italian Institute for Environmental Protection and Research, IT	Two seas, one risk: trophic ecology insights into microlitter ingestion in Callinectes sapidus from the Adriatic and Tyrrhenian Sea
P13	Mariacristina Cocca	Institute of Polymers, Composites and Biomaterials - CNR, IT	Environmental friendly foams to remove microplastics released from textile to wastewater
P14	Joao Da Costa	Department of Chemistry and Center for Marine and Environmental Studies - University of Aveiro, PT	How road traffic fuels microplastic contamination
P15	Roberta D'Auria	Institute of Polymers, Composites and Biomaterials - CNR, IT	Biodegradable polymer blends with lignin as UV stabilizer for eco-sustainable fishing nets
P16	Cristina De Monte	1Institute for Chemical and Physical Processes - CNR, IT	Towards sustainable solutions based on biopolymeric blends for containment nets in the aquaculture sector
P17	Cristina Grazia De Nido	Department of Medical and Surgical Sciences - University of Foggia, IT	Microplastics in sea salts from Mediterranean and Atlantic Ocean salt pans: a comparative study
P18	Maria Emanuela Errico	Institute of Polymers, Composites and Biomaterials - CNR, IT	Biodegradable functional composites containing agricultural byproducts: results from the “NEW SKIN” project
P19	Camilla Fantasia	SRA Instruments SpA, IT	Recent developments on microplastics analysis in marine sediments and air involving GCMS-pyrolisis and Agilent LDIR spectroscopy
P20	Berenice Garcia	Department of Biotechnology and Bioengineering - Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional, MX	Sustainable-to-go cups: eco-friendly or a hidden plastic hazard under thermal stress?



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POSTER LIST

P21	Gennaro Gentile	Institute of Polymers, Composites and Biomaterials - CNR, IT	Design of hyper-cross-linked cellulose nanofibrils as renewable sorbents for chlorophenol removal from water
P22	Anita Grozdanov	Faculty of Technology and Metallurgy- University SS Cyril and Methodius, NMK	Heavy metal ions sorbents based on fly ash/MWCNT
P23	Ilaria Guardamagna	Institute for Marine Biological Resources and Biotechnology - CNR, IT	A comparative study on anthropogenic particles in Anemonia viridis between the Capo Peloro Natural Reserve and the Aeolian islands
P24	Natalia Hernandez Montero	Chemical Engineering Department - University of Costa Rica, CR	Microwave-assisted hydrogen peroxide degradation of polystyrene microplastics
P25	Valeria Ippolito	Institute of Polymers, Composites and Biomaterials - CNR, IT	Multicomponent platforms integrating fibers and nanoparticles for environmental remediation
P26	Alessandra La Pietra	Department of Biology - University of Naples Federico II, IT	Zebrafish to study microplastics and Trojan Horse effect
P27	Beatrice Luzi	Water Research Institute - CNR, IT	Invisible threads, visible impact: microfibers in domestic appliances
P28	Francisco Machin	Physical Oceanography and Applied Geophysics - University of Las Palmas de Gran Canaria, ES	Characterization of the composition and types of marine microplastics in the Canary islands
P29	Chiara Magnabosco	Water Research Institute - CNR, IT	Impact of biodegradable plastics on freshwater environments
P30	Loredana Manfra	National Institute for Environmental Protection and Research, IT	Unveiling the size effect on hazard of commercially derived microplastics
P31	Lucia Therese Marcianò	Department of Earth and Marine Sciences - University of Palermo, IT	Impact of PET nanoplastics on immune homeostasis and cellular function in Mmytilus Galloprovincialis
P32	Susanna Mesghez	Institute of Marine Sciences - CNR, IT	Abundance and characteristics of microplastics in surface waters of two transitional ecosystems: the Venice lagoon and the Po delta
P33	Ljiljana Milosevic	Faculty of Environmental Protection - Educons University, RS	Advancing microplastic mitigation through Life Cycle Assessment: policy integration challenges in the republic of Serbia within the EU accession context
P34	Eleonora Monfardini	Department of Environmental Biology - La Sapienza University of Roma, IT	Microplastic ingestion in three deep-water fish species: ecological insights from stable isotope analysis
P35	Tommaso Mosca	Dipartimento di Scienze della Vita e dell'Ambiente - Università Politecnica delle Marche, IT	Greenplasma: a mobile waste-to-energy system for marine plastic recovery and valorisation
P36	Lorenzo Palumbo	Department of Environment & Health, National - Institute of HealthNational Institute of Health, IT	Integrated assessment of airborne microplastics in plastic processing facilities
P37	Monia Renzi	Department of Life Sciences - University of Trieste, IT	Frontiers in microplastics and nanoplastics research: principal gaps and future perspectives
P38	Alberto Santi	Institute of Marine Sciences - CNR, IT	Microplastics in the drainage basin of the venetian lagoon: an assessment of an emerging pollutant in water surface and sediments
P39	Serena Santonicola	Department of Medicine and Health Sciences "V. Tiberio" - University of Molise, IT	Preliminary investigation of microplastic and microfiber contamination in raw milk from Italy: implications for food safety
P40	Lisa Zanetti	Institute of Anthropic Impact and Sustainability in the Marine Environment - CNR, IT	Meso- and microplastics in beach sediments with Posidonia oceanica: a preliminary assessment from Ligurian Sea
P41	Rosa Zullo	Water Research Institute - CNR, IT	Preliminary results on microplastic pollution in the Ticino River and its urban tributaries in Pavia: insights from the MINOSSE project