

SCIENTIFIC PROGRAMME

Oral Session

MONDAY – MAY 20th 2024

9.00 – 10.00	Welcome coffee and Registration
10.00 - 10.30	Opening Ceremony and Welcome addresses <i>Giovanni Verzellesi, Prorector of UNIMORE</i> <i>Alessandro Ulrici, Deputy Director of the Department of Life Sciences, UNIMORE</i> <i>Mariafrancesca Sidoli, Councillor for Productive Activities of the Municipality of Reggio Emilia</i> <i>Fabio Licciardello, Chair of the Conference</i>
SESSION: SHELF LIFE ASSESSMENT AND PREDICTION <i>Chair: Elena Torrieri, Carlos A. Fuenmayor Bobadilla</i>	
10.30 – 11.00	KEYNOTE LECTURE Packaging design for reducing food waste <i>Helén Williams, Karlstad University, Sweeden</i>
11.00 – 11.20	Shelf life extension of protein-fortified gluten-free fresh pasta by modified atmosphere packaging <i>(Kongkaew N., Jinakap P., Tongdeesoontorn W., Homthawornchoo W.)</i> <i>Wantida Homthawornchoo, Mae Fah Luang University, Thailand</i>
11.20 – 11.40	Smell fish freshness by e-nose <i>(Grassi S., Benedetti S., Pianezzola A., Ubaldi G., Buratti S.)</i> <i>Silvia Grassi, University of Milan, Italy</i>
11.40 – 12.00	Assessing the impact of multilayer recyclable PE-based materials on ground coffee preservation through accelerated shelf-life testing <i>(Bassi V., Gobbi S., Ponzelletti M., Buratti S., Benedetti S., Limbo S.)</i> <i>Vittorio Bassi, University of Milan, Italy</i>
12.00 – 12.20	Foodomics for quality and safety and shelf life evaluation of high-pressure processed European sea bass fillets <i>(Anjos L., Pinto P., Tsironi T., Sousa C., Loukissas A., Dimopolous G., Taoukis P., Canário A., Power D.)</i> <i>Liliana Anjos, Centre of Marine Sciences, Portugal</i>
12.20 – 12.40	Rapid and chemical-free method for monitoring quality of dried shrimp using machine learning-assisted hyperspectral imaging <i>(Siripatrawan U., Makino Y.)</i> <i>Ubonrat Siripatrawan, Chulalongkorn University, Thailand</i>
12.40 – 13.00	Volatile organic compounds associated with spoilage bacteria isolated from blue mussels (<i>Mytilus edulis</i>) packed under modified atmospheres <i>(Ratnawati S.E., Kuuliala L., Cnockaert M., Vandamme P., Walgraeve C., Demeestere K., Devlieghere F.)</i> <i>Susana Endah Ratnawati, Ghent University, Belgium</i>
13.00 – 14.30	Lunch & Poster Session
SESSION: SHELF LIFE ASSESSMENT AND PREDICTION <i>Chair: Nattinee Bumbudsanpharoke, Andrea Pulvirenti</i>	
14.30 – 14.50	A food requirement-driven approach for packaging design: starting from food needs and target shelf-life to develop tailor-made solutions <i>(Pignères E., Coffigniez F., Gaucel S., Angellier-Coussy H., Guillard V.)</i> <i>Emma Pignères, University of Montpellier, France</i>
14.50 – 15.10	Accelerated photostability testing using filtered xenon-arc chambers <i>Oliver D. Rahaeuser, Atlas MTT GmbH, Germany</i>
15.10 – 15.30	The shelf life dilemma: facing mismatching sensory indicators in food undergoing oxidation <i>(Alongi M., Lopriore M., Calligaris S., Manzocco L., Nicoli M.C.)</i> <i>Marilisa Alongi, University of Udine, Italy</i>
15.30 – 16.30	Coffee Break & Poster Session
16.30	Visit at food companies (<i>Italpizza</i> or <i>Villani Salumi</i>)

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TUESDAY – MAY 21st 2024

SESSION: INNOVATIVE TECHNOLOGIES FOR SHELF LIFE EXTENSION <i>Chair: Patrizia Fava, Kit Yam</i>	
09.00 – 09.30	KEYNOTE LECTURE Active packaging and waste valorization: a real opportunity for food sustainability? <i>Sara Limbo, University of Milan, Italy</i>
09.30 – 09.50	Mathematical modeling for atmospheric dynamics in active package of roasted coffee beans (<i>Lee D.S., An D.S., Jung S.Y., Kim S.C., Yu H.k.</i>) <i>Dong Sun Lee, Kyungnam University, South Korea</i>
09.50 – 10.10	Control of microbial spoilage of fresh beef meat with a diacetyl-based active packaging (<i>Rupérez D., Nerín C., Silva F.</i>) <i>David Rupérez, University of Zaragoza, Spain</i>
10.10 – 10.30	Effect of the inclusion of hazelnut skin and extruded linseed in lamb diet on lipid oxidation during cooking and in vitro digestion of meat (<i>Cattivelli A., Zannini M., Tagliazucchi D., D’Ambra K., Trovato R., Minelli G., Musati M., Luciano G., Priolo A., Natalello A., Conte A., Lo Fiego D.P.</i>) <i>Alice Cattivelli, University of Modena and Reggio Emilia, Italy</i>
10.30 – 10.50	Efficacy of hyperbaric storage in preventing color changes in food: a kinetic study on enzymatic and non-enzymatic browning (<i>Basso F., Manzocco L., Saraiva J.A.M., Nicoli M.C.</i>) <i>Federico Basso, University of Udine, Italy</i>
10.50 – 11.40	Coffee Break & Poster Session
SESSION: INNOVATIVE TECHNOLOGIES FOR SHELF LIFE EXTENSION <i>Chair: Eva Almenar, Wirongrong Tongdeesoontorn</i>	
11.40 – 12.00	Enhancing hass avocado preservation: comprehensive analysis of modified atmosphere packaging and cinnamaldehyde-based activesystems with special emphasis on fat profile (<i>Fuenmayor C.A., Ramírez S.L., Cortés C.E., González I.A., García J., González A., Zuluaga-Domínguez C.M., Castellanos D.A.</i>) <i>Carlos Alberto Fuenmayor, National University of Colombia</i>
12.00 – 12.20	Carbon dot enhanced active polyvinyl alcohol film for antifungi in biodegradable packaging for sweet bread (<i>Thanawutthiphong P., Bumbudsanpharok N.</i>) <i>Pornchanok Thanawutthiphong, Kasetsart University, Thailand</i>
12.20 – 12.40	From orange by-products to edible and active films using electrohydrodynamic atomization (<i>Mariño-Cortegoso S., Silva P., Martins V.D.F., Rodríguez Bernaldo de Quirós A., Sendón R., Barbosa-Pereira L., Pastrana L., Bourbon A.I.</i>) <i>Sandra Mariño-Cortegoso, University of Santiago de Compostela, Spain</i>
12.40 – 13.00	Temperature responsive dynamic O₂ control in fresh produce modified atmosphere transport container: parameter variability and sensitivity analysis (<i>Kalnar Y.B., Weltzien C., Mahajan P.V.</i>) <i>Yogesh B. Kalnar, ATB- Leibniz Institute for Agricultural Engineering and Bioeconomy, Germany</i>
13.00 – 13.20	Effect of plasma-activated water and active packaging on alteration kinetics of minimally processed fennel stored at different temperatures (<i>Shah M.H.S., Cavella S., Volpe S., Colonna F., Verardo V., Razola-Diaz M.d.C., Torrieri E.</i>) <i>Syed Mudabbar Hussain Shah, University of Napoli Federico II, Italy</i>
13.20 – 14.40	Lunch & Poster Session

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SESSION: INNOVATIVE TECHNOLOGIES FOR SHELF LIFE EXTENSION	
<i>Chair: Dong Sun Lee, Maria Cristina Nicoli</i>	
14.40 – 15.00	Engineering antibacterial plasma polymerized polyethylene glycol/ZnO nanocomposite coatings for extending pork sausage shelf life (<i>Zabihzadeh Khajavi M., Nikiforov A., Devlieghere F., Ragaert P., De Geyter N.</i>) <i>Maryam Zabihzadeh Khajavi, University of Gent, Belgium</i>
15.00 – 15.20	Pulsed electric field technology in food processing: insights into treatment protocol optimization (<i>Genovese J.</i>) <i>Jessica Genovese, University of Milan, Italy</i>
15.20 – 15.40	Valorization of spent coffee ground through the development of active alginate-chitosan films: physical properties and release kinetics (<i>Borriello A., Basile G., Miele N.A., Volpe S., Cavella S., Romano R., Torrieri E.</i>) <i>Nicoletta Antonella Miele, University of Naples Federico II, Italy</i>
15.40 – 16.00	Shelf-life extension of packaged strawberries using a bio-based antimicrobial foam (<i>Riederer A., Beaudry R., Almenar E.</i>) <i>Eva Almenar, Michigan State University, USA</i>
16.00 – 16.20	Active coating formulation utilizing carboxymethyl cellulose, zinc oxide, and silver nanoparticles to extend the shelf life of mango (<i>Saekow M., Hamazu Y, Tongdeesoontorn W.</i>) <i>Wirongrong Tongdeesoontorn, Mae Fah Luang University, Thailand</i>
16.20 – 16.40	Exploring the science behind releasing active food biopackaging with by-products and plant-derived extracts (<i>Sanches Silva A.</i>) <i>Ana Sanches Silva, University of Coimbra, Portugal</i>
16.40 – 17.40	Coffee Break & Poster Session
From h. 18.00	Cultural visit of the historical center of Reggio Emilia
Social Dinner at Chiostri di San Pietro (Reggio Emilia city center)	

WEDNESDAY – MAY 22nd 2024

SESSION: TRENDS IN PACKAGING MATERIALS DEVELOPMENT	
<i>Chair: Mariamelia Stanzione, Lorenzo Favaro</i>	
09.00 – 09.30	KEYNOTE LECTURE Chemical safety and risk assessment on bioplastics for food contact <i>Ana Rodríguez Bernaldo de Quirós, University of Santiago de Compostela, Spain</i>
09.30 – 09.50	Evaluation of salami, packaged in recyclable and eco-sustainable material (<i>Giombelli A., Principato L., Galli R., Gumus-Bonacina C.E., Bassani A., Spigno G.</i>) <i>Cansu Ekin Gumus-Bonacina, Università Cattolica del Sacro Cuore, Italy</i>
09.50 – 10.10	Tailoring PBAT/TPS blend films for sustainable bread packaging: investigation of TPS grade and its implications (<i>Pertiwi Nurhadi R., Thanawutthiphong P., Bumbudsanpharok N.</i>) <i>Nattinee Bumbudsanpharok, Kasetsart University, Thailand</i>
10.10 – 10.30	Tannins as multifunctional additives for polyhydroxyalkanoates to develop smart food packaging (<i>Ferri M., Papchenko K., Degli Esposti M., Tondi G., De Angelis M.G., Morselli D., Fabbri P.</i>) <i>Martina Ferri, University of Bologna, Italy</i>
10.30 – 10.50	Valorization of olive leaf by-products for the development of sustainable food packaging materials (<i>Aloui H., M'Rabet Y., Khwaldia K.</i>) <i>Hajer Aloui, Institut National de Recherche et d'Analyse Physico-chimique, Tunisia</i>
10.50 – 11.40	Coffee Break & Poster Session

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SESSION: TRENDS IN PACKAGING MATERIALS DEVELOPMENT

Chair: Carol López-de-Dicastillo, Fabio Licciardello

11.40 – 12.00	Poly(butylene adipate-co-terephthalate)/thermoplastic starch/zinc oxide bio-nanocomposite: sustainable alternative to replace commodity perforated plastic for absorbent & CO₂ emitting sachet (Pertiwi Nurhadi R., Bumbudsanpharoke N.) <i>Rineta Pertiwi Nurhadi, Kasetsart University, Thailand</i>
12.00 – 12.20	Production and characterization of bacterial cellulose from pineapple juice (Peengern N., Sasanatayart R.) <i>Rungarun Sasanatayart, Mae Fah Luang University, Thailand</i>
12.20 – 12.40	Evaluation of PLA and PBAT based biocomposites plasticized with different citric acid esters of mono and diglycerides (CITREMS) (Mena-Prado I., Navas-Ortiz E., Fernández-García M., Limbo S., Rollini M., del Campo A., Muñoz-Bonilla A.) <i>Ignacio Mena-Prado, Instituto de Ciencia y Tecnología de Polímeros ICTP-CSIC, Spain</i>
12.40 – 13.00	Shelf life study of biobased lacquer from tomato by-products for food metal packaging (Chierici S., Zurlini C., Cigognini I.M., Gelati S.) <i>Serena Chierici, Stazione Sperimentale per l'Industria delle Conserve Alimentari (SSICA), Italy</i>
13.00 – 13.20	Montmorillonite/graphene oxide and chitosan-based nanocoatings with improved oxygen barrier properties (Cabrini A., Fisher S.G., Iverson E.T., Lavorgna M., Cerruti P., De Nardo L., Gentile G., Grunlan J.C.) <i>Alessia Cabrini, National Research Council (CNR), Italy</i>
13.20 – 14.30	Lunch & Poster Session

SESSION: TECHNICAL AND SAFETY ISSUES OF RECYCLED AND SUSTAINABLE PACKAGING

Chair: Ana Sanches Silva, Luciano Piergiovanni

14.30 – 15.00	KEYNOTE LECTURE Safety assessment of mechanical recycling processes of PET to be used for materials and articles in contact with food <i>Remigio Marano (EFSA)</i>
15.00 – 15.20	Effect of mechanical recycling and reprocessing of water bottles on the physical properties of poly(lactic acid) biopolymer (Martinez-Arjona P., Velásquez E., Hernández-Muñoz P., Gavara R., López-de-Dicastillo C.) <i>Carol López-de-Dicastillo, Institute of Agrochemistry and Food Technology (IATA), Spain</i>
15.20 – 15.40	Development of an enzymatic hydrolysis and microbial conversion process for the valorisation of single-use bioplastics (Myburgh M.W., Rocher D.F., Viljoen-Bloom M., Favaro L.) <i>Lorenzo Favaro, University of Padua, Italy</i>
15.40 – 16.00	Biodegradation behavior of Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) containing phenolic compounds in seawater in laboratory testing conditions (La Fuente Arias C.I., González-Martínez C., Chiralt A.) <i>Carla I. La Fuente Arias, Universitat Politècnica de València, Spain</i>
16.00 – 16.20	A study on the main parameters affecting the migration of mineral oil hydrocarbons from recycled paperboard (Barp L., Conchione C., Suman M., Lambertini F., Moret S.) <i>Laura Barp, University of Udine, Italy</i>
16.20 – 16.40	Recyclable flexible films with enhanced gas barrier for sustainable packaging (Olivieri F., Castaldo R., Avolio R., Cocca M., Errico M.E., Senatore V., Carfagna C., Gentile G.) <i>Federico Olivieri, National Research Council (CNR), Italy</i>
16.40 – 17.00	Identification of NIAS migrating from inner coatings of metallic cans – Toward provisional risk assessment of oligoesters (Cariou R., Godéré M., Covès P., Rivière M., Mathé-Allainmat M., Lebreton J., Tessier A., Tatol C., Pieters G., Bemrah N., Teste B., Rodríguez-Bernaldo A., Barbosa-Pereira L., Séverin I., Chagnon M.C., Person E., Cabaton N., Le Bizec B., Dervilly G.) <i>Ronan Cariou, Oniris, INRAE, LABERCA, France</i>

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17.00 – 17.15	Concluding remarks <i>Luciano Piergiovanni, GSICA</i>
17.15 – 18.00	Farewell coffee <i>Parmigiano Reggiano Experience</i>
18.30	Guided sightseeing (<i>optional, in collaboration with Comune di Reggio Emilia</i>)

THURSDAY – MAY 23rd 2024

8.30-15.00	Guided visits at food companies (<i>Barilla and Acetaia Giusti</i>) Lunch at Acetaia Giusti (<i>not included in the registration fee</i>)
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