

DAY 1 - 21/06/2023

Oral Session 1 MORNING (10:15 – 11:30)

| Time | Authors | Title | Track |
|-------|--|---|---|
| 10:15 | Alessio Luschi, Paolo Nesi and Ernesto Iadanza | Health Information Technology Adverse Events Identification and Classification with Natural Language Processing and Deep Learning | Track 1 - E-health and Clinical Engineering |
| 10:30 | Enrico Longato, Erica Tavazzi, Adriano Chiò, Giovanni Sparacino and Barbara Di Camillo | Dynamic Bayesian Networks and Transfer Learning Enable the Development of Deep Sequence-Based Models on Small-Sample Data | Track 1 - E-health and Clinical Engineering |
| 10:45 | Giulia Olla, Giulia Sedda, Annalisa Bonfiglio, Sebastiano Traccis and Danilo Pani | EyeLab: a user-friendly Matlab tool for real-time monitoring of eye movements | Track 1 - E-health and Clinical Engineering |
| 11:00 | Eleonora Manzoni, Jacopo Pavan, Mirco Rampazzo and Simone Del Favero | Multi-Input Multi-Output Model Predictive Control for Drugs Delivery in Clinical Anesthesia | Track 2 - Physiological and Neural System Modelling |
| 11.15 | Piergiuseppe Liuzzi, Bahia Hakiki, Antonello Grippo, Francesca Cecchi and Andrea Mannini | Non-linear analysis of HRV reveal lower signal complexity in patients with a prolonged Disorder of Consciousness | Track 2 - Physiological and Neural System Modelling |

Oral Session 1 AFTERNOON (14:30 – 15:15)

| Time | Authors | Title | Track |
|-------|--|---|--|
| 14:30 | Daniele Pastorelli, Debora Dallera, Emanuele Persico, Massimo Bellato, Gabriella Cusella | Study and characterization of bile acid biosensors in engineered probiotic bacteria | Track 9 - Bioinformatics and Synthetic Biology |

| | | | |
|-------|--|---|--|
| | Maria, Lorenzo Pasotti and Paolo Magni | | |
| 14:45 | Elisa Gaetan, Chiara Cimolato, Luca Schenato and Massimo Bellato | Modeling metabolic overload effects in bacterial growth rate in synthetic biology | Track 9 - Bioinformatics and Synthetic Biology |
| 15:00 | Paola Paci | The long story of SWIM methodology: from grapevine to personalised medicine | Track 9 - Bioinformatics and Synthetic Biology |

Poster Session 1 (12:30 – 14:30)

| ID # | Authors | Title | Track |
|------|---|--|---|
| 2095 | Jose Albites-Sanabria, Pierpaolo Palumbo, Jorunn L. Helbostad, Luca Palmerini and Lorenzo Chiari | Wearable-based Sit-to-Stand transfers in Older Adults: context differences between in-lab and home-based assessments | Track 1 - E-health and Clinical Engineering |
| 2674 | Marco Orrù, Elisa Pitzalis, Giulia Baldazzi, Graziana Viola and Danilo Pani | A novel tool for the annotation of bipolar electrograms for cardiac electrophysiology | Track 1 - E-health and Clinical Engineering |
| 3270 | Luca Cossu, Lorenzo Carlo Causin, Andrea Facchinetti and Giacomo Cappon | Design and Evaluation of an Intuitive Administration Dashboard for a Platform used to Monitor Clinical Trials | Track 1 - E-health and Clinical Engineering |
| 3754 | Chiara Giangregorio, Emilia Ambrosini and Simona Ferrante | Automatic extraction of acoustic features to predict Alzheimer's disease among English-speaking subjects | Track 1 - E-health and Clinical Engineering |
| 3832 | Paola Picozzi, Gian Luca Viganò, Matteo Verga, Martina Capuzzo, Claudia Duri, Lucia Maria Ignotti, Sara De Paola and Veronica Cimolin | Development of an Integrated Software System for Medical Equipment Management: the experience of the Spedali Civili Hospital | Track 1 - E-health and Clinical Engineering |

| | | | |
|------|--|--|---|
| 3958 | Ugo Lomoio, Patrizia Vizza, Raffaele Giancotti, Giuseppe Tradigo, Salvatore Petrolo, Sergio Flesca, Pietro Hiram Guzzi and Pierangelo Veltri | A tool to perform semi-supervised anomaly detection and annotation on 15 lead ECG signals | Track 1 - E-health and Clinical Engineering |
| 4362 | Isotta Trescato, Erica Tavazzi, Martina Vettoretti, Rosario Vasta, Adriano Chiò and Barbara Di Camillo | Identifying Extreme Profiles in Amyotrophic Lateral Sclerosis Patients at Diagnosis through Archetypal Analysis | Track 1 - E-health and Clinical Engineering |
| 4423 | Michele Atzeni, Caterina Grisi, Giacomo Cappon and Martina Vettoretti | Assessing Personal Exposure to Airborne Particulate Matter with Wearable Sensors and Ventilation Rate Models | Track 1 - E-health and Clinical Engineering |
| 4962 | Simona Pascucci, Michela Franzò, Veronica Mari, Alessia Biondi, Stefania Ceccarelli, Fabiano Bini, Franco Marinozzi, Enrico Ciminello, Paola Ciccarelli, Paola Laricchiuta, Eugenio Carrani and Marina Torre | Key points to design the MDs Library of a National implant Registry: lesson learned from the Italian experience | Track 1 - E-health and Clinical Engineering |
| 5475 | Mauro Giacomini, Sara Mora, Elena Lazarova, Norbert Maggi and Carmelina Ruggiero | Improving data quality in healthcare: medical informatics tools and standards | Track 1 - E-health and Clinical Engineering |
| 5707 | Emanuele Tauro, Enrico Gianluca Caiani, Giacomo Galuzzi, Margot Mazziotti, Fosco Cancelliere and Grzegorz Bilo | Commercial Smart Virtual Assistants to support medication adherence in chronic patients: a preliminary usability study | Track 1 - E-health and Clinical Engineering |
| 6455 | Francesco Goretti, Alberto Vassia Marzullo, Massimo Milli and Ernesto Iadanza | Prediction of Atrial Fibrillation using Deep Learning techniques | Track 1 - E-health and Clinical Engineering |
| 6553 | Elena Bardi, Carola Butera, Luca Pozzi, Marta Gandolla, | 3D upper limbs tracking through inertial sensors: calibration, methodology, and validation | Track 1 - E-health and Clinical Engineering |

| | | | |
|------|--|---|---|
| | Francesco Braghin and Emilia Ambrosini | | |
| 6598 | Francesca Longhin, Alessandro Guazzo, Enrico Longato, Diego Boscarino, Dino Paladin, Nicola Ferro and Barbara Di Camillo | Manual and automatic identification of ACMG evidence in scientific papers | Track 1 - E-health and Clinical Engineering |
| 7425 | Erica Tavazzi, Davide Albertini and Martina Vettoretti | Development of predictive models for short-term prediction of disability progression in multiple sclerosis | Track 1 - E-health and Clinical Engineering |
| 7918 | Nicola Cortese, Anna Procopio, Salvatore De Rosa, Giovanni Canino, Alessio Merola, Jolanda Sabatino, Claudia Critelli, Ciro Indolfi, Francesco Amato and Carlo Cosentino | A Distributed Multi-Centric Application for the Analysis of Cardiac Biomarkers | Track 1 - E-health and Clinical Engineering |
| 8263 | Emilia Scalona, Dorian De Marco, Gianluca Rossetto, Martina Mosso, Pietro Avanzini, Maddalena Fabbri-Destro, Giuseppe Andreoni and Nicola Francesco Lopomo | Quantifying the contribution of single joint kinematics to the overall ergonomic discomfort | Track 1 - E-health and Clinical Engineering |
| 8927 | Chiara Piazzalunga, Alice Donati and Simona Ferrante | Co-design of a points-based reward system to boost motivation in children and improve adherence to learning serious games | Track 1 - E-health and Clinical Engineering |
| 9081 | Alessio Luschi, Laura Gatti, Eleonora Tiribilli, Elena Denisova, Leonardo Manetti, Leonardo Bocchi and Ernesto Iadanza | Risk management in a medical device software: evaluation of the usability characteristics of a 3D viewer for reporting | Track 1 - E-health and Clinical Engineering |
| 128 | Rachele Fabbri, Arti Ahluwalia and Chiara Magliaro | A computational platform to assess the metabolic-electrophysiological behaviour of neurons cultured in monolayers | Track 2 - Physiological and Neural System Modelling |

| | | | |
|------|---|---|---|
| 903 | Giulia Maria Boiani, Sergio Solinas, Giacomo Preti, Aurora Manini, Michele Migliore, Jonathan Mapelli and Daniela Gandolfi | Full-scale point-neuron model of the mouse hippocampal microcircuits | Track 2 - Physiological and Neural System Modelling |
| 1643 | Melissa Monti, Sophie Molholm and Cristiano Cuppini | A neural model of sensory interactions in young neurotypical and ASD children | Track 2 - Physiological and Neural System Modelling |
| 2052 | Giovanni Chiarion and Luca Mesin | Functional Connectivity of the EEG in epilepsy: a single case study | Track 2 - Physiological and Neural System Modelling |
| 2223 | Carlo Balsamello, Silvio Pianca, Antonio Bellasi, Carla Colturi, Gianvincenzo Melfa, Giuseppe Rombolà, Reto Venzin, Pietro Cippà, Giustina Casagrande and Maria Laura Costantino | The prediction of the patient's response to hemodialysis treatment: Dialysis vs InterACTIVE-HD 2.0 experience | Track 2 - Physiological and Neural System Modelling |
| 2231 | Jacopo Bonet, Roberto Visentin, Martina Vettoretti, Andrea Facchinetti and Chiara Dalla Man | Smart Titration of Long-Acting Insulin in Insulin-Naïve Type 2 Diabetic Subjects | Track 2 - Physiological and Neural System Modelling |
| 2297 | Linda Lastrico, Alessandro Carfi, Francesco Rea, Fulvio Mastrogiovanni and Alessandra Sciutti | Toward Implicit Communication of Object Properties for Human-Robot Interaction | Track 2 - Physiological and Neural System Modelling |
| 3240 | Federica Goffi, Pierluigi Reali, Adele Ferro, Viviana Pescuma, Giandomenico Schiena, Ylenia Barone, Paolo Enrico, Yvan Torrente, Fabio Triulzi, Anna Maria Bianchi, Paolo Brambilla and Eleonora Maggioni | Brain-heart interaction: an ECG-fMRI integrated study in physiology and major depressive disorder | Track 2 - Physiological and Neural System Modelling |
| 3525 | Mario Severino, Pierluigi Selvaggi, Martin Osugo, Ottavia | Modelling cerebral blood flow and neuroreceptor occupancy in dopamine blocking studies | Track 2 - Physiological and Neural System Modelling |

| | | | |
|------|---|---|---|
| | Dipasquale, Uzma Zahid, Thomas Whitehurst, Ellis Onwordi, Ben Statton, Tiago Reis Marques, Robin Murray, Mitul Mehta, Oliver Howes and Mattia Veronese | | |
| 4750 | Daniele Andrean, Francesco Da Ros, Mario Mazzucato, Morten Gram Pedersen and Roberto Visentin | Modeling Doxorubicin Treatment Effect in Multiple Myeloma | Track 2 - Physiological and Neural System Modelling |
| 5470 | Danilo Benozzo, Giorgia Baron, Giacomo Baggio, Alessandro Gozzi, Maurizio Corbetta, Alessandro Chiuso, Sandro Zampieri and Alessandra Bertoldo | Single region contribution to the brain dynamic (in)stability | Track 2 - Physiological and Neural System Modelling |
| 5715 | Alberto Antonietti, Paolla Furquim Daud and Alessandra Pedrocchi | A multiscale computational approach to replicate the full-scale mouse striatum model | Track 2 - Physiological and Neural System Modelling |
| 5855 | Edoardo Faggionato, Paolo Denti, Anna Largajolli, Alessandra Bertoldo and Chiara Dalla Man | A Comprehensive Nonlinear Mixed Effects Model of Glucose, Insulin, and C-Peptide Interaction during IVGTT | Track 2 - Physiological and Neural System Modelling |
| 6007 | Matteo Baldan, Francesco Da Ros, Mario Mazzucato, Morten Gram Pedersen and Roberto Visentin | Model Assessment of Doxorubicin Pharmacokinetics in Multiple Myeloma | Track 2 - Physiological and Neural System Modelling |
| 6329 | Paolo Peruzzo and Francesca Maria Susin | Numerical simulations of the cerebrospinal flow through the Sylvius aqueduct modeled as a diffuser/nozzle pump | Track 2 - Physiological and Neural System Modelling |
| 6753 | Micaela Morettini, Agnese Piersanti, Christian Göbl, Laura Burattini and Andrea Tura | Mathematical model of glucagon kinetics during an oral glucose tolerance test based on a dual regulation mechanism | Track 2 - Physiological and Neural System Modelling |

| | | | |
|------|---|--|---|
| 7894 | Lorenzo Gaetano Amato, Alberto Arturo Vergani, Michael Lassi, Riccardo Mannella, Valentina Bessi, Antonello Grippo and Alberto Mazzoni | Network model accounts for evolution of EEG functional connectivity in patients with cognitive decline | Track 2 - Physiological and Neural System Modelling |
| 8166 | Matteo Martin and Morten Gram Pedersen | Noise-Induced Dynamics and Stochastic Slow Manifolds in the Bistable Xiong-Ferrell Model | Track 2 - Physiological and Neural System Modelling |
| 9875 | Marco Prenassi, Manuel Ellero, Annamaria Caruso and Sara Marceglia | From data to knowledge: definition of an exploratory dataset for deep brain stimulation | Track 2 - Physiological and Neural System Modelling |
| 9921 | Marta Carrara, Pietro Antenucci and Manuela Ferrario | How to assess vascular dysfunction during septic shock and resuscitation | Track 2 - Physiological and Neural System Modelling |
| 250 | Maria Vittoria Mascolini, Joseph Vannel Fotso Fogang, Valentina Salomoni, Chiara Giulia Fontanella, Emanuele Luigi Carniel and Arturo Nicola Natali | A novel artificial urinary sphincter and comparison with reference device | Track 3 - Biomechanics and prosthetics |
| 522 | Manfredo Atzori, Henning Müller, Alessandro Buosi, Franco Reggiani, Jacopo Lazzaro, Giosuè Alberti, Cesare Tiengo, Franco Bassetto and Nicola Petrone | A dexterous hand prosthesis based on additive manufacturing | Track 3 - Biomechanics and prosthetics |
| 545 | Dario Colli and Gianni Pedrizzetti | Adaptation of cardiac deformation pattern during exercise in children | Track 3 - Biomechanics and prosthetics |
| 768 | Serena Anglese, Mauro Lo Rito, Antonio Rosato, Valentina Ceserani, Giovanni Maria Formato, Ariel Fernando Pascaner and Michele Conti | Development of novel computational tool to support surgical planning for the treatment of Anomalous Aortic Origin of the Coronary Arteries (AAOCA) | Track 3 - Biomechanics and prosthetics |

| | | | |
|------|---|--|--|
| 1175 | Andrada Pica, Andrea Marinozzi, Franco Marinozzi and Fabiano Bini | 3D Finite Element Analysis of a Percolating Cluster inside the Mineralized Collagen Fibril | Track 3 - Biomechanics and prosthetics |
| 1299 | Simone Borrelli, Giovanni Putame, Alberto Audenino, Andrea Ferro, Stefano Marone and Mara Terzini | The effect of CFR-PEEK cross-link in short fixation for the stabilization of lumbar metastasis: an in-vitro comparative study | Track 3 - Biomechanics and prosthetics |
| 1517 | Federica Camuncoli, Luca Barni, Sebastiano Nutarelli, Jacopo Emanuele Rocchi, Matteo Barcillesi, Irene Di Dio, Andrea Sambruni and Manuela Galli | Inertial measurements unit validation for countermovement jump (CMJ) tests in athletes | Track 3 - Biomechanics and prosthetics |
| 1533 | Giuseppe Zullo, Elisa Baldoin, Andrey Koptuyug, Mikael Bäckström and Nicola Petrone | Advances in the development of a instrumented head surrogate for brain injury investigation | Track 3 - Biomechanics and prosthetics |
| 1894 | Giacomo Fabris, Mattia Scapinello, Samira Breban, Sara Barbacane, Gianluca Migliore, Andrea Cutti and Nicola Petrone | Towards a Wearable System for Complete Collection of Clamp Loads in Transfemoral Paralympic Sprinters | Track 3 - Biomechanics and prosthetics |
| 2152 | Elena Pegolo, Elena Carraro, Federica Cibir, Fabiola Spolaor, Francesca Salmin, Andrea Lizio, Maria Chiara Frisoni, Stefano Becchiati, Valeria Sansone and Zimi Sawacha | Face mobility analysis in Spinal Muscular Atrophy | Track 3 - Biomechanics and prosthetics |
| 2328 | Roberta Scuoppo, Stefano Cannata, Caterina Gandolfo and Salvatore Pasta | Structural Simulation of Transcatheter Heart Valve in Transcatheter Heart Valve | Track 3 - Biomechanics and prosthetics |

| | | | |
|------|--|--|---|
| 2504 | Nicoletta Curcio, Antonio Rosato, Daniela Mazzaccaro, Michele Conti and Giulia Matrone | A Workflow for Biomechanical Simulation of Patient-specific Atherosclerotic Carotid Artery | Track 3 - Biomechanics and prosthetics |
| 3321 | Ilaria Toniolo, Maria Vittoria Mascolini, Simona Neri, Antonella Peruffo, Anna Perazzi and Chiara Giulia Fontanella | Experimental Analysis of the biomechanics of healthy porcine corneas | Track 3 - Biomechanics and prosthetics |
| 3779 | Fabrizio Crascì, Stefano Cannata, Caterina Gandolfo and Salvatore Pasta | Numerical Analysis of the Bicaval Transcatheter System for the Treatment of Severe Tricuspid Regurgitation | Track 3 - Biomechanics and prosthetics |
| 4482 | Sofia Pettenuzzo, Alice Berardo, Elisa Belluzzi, Assunta Pozzuoli, Pietro Ruggieri, Emanuele Luigi Carniel and Chiara Giulia Fontanella | Biomechanical characterization of human plantar fascia through experimental tests | Track 3 - Biomechanics and prosthetics |
| 6187 | Francesca Gariboldi, Mattia Scapinello, Nicola Petrone, Gian Luca Migliore, Gregorio Teti and Andrea Giovanni Cutti | Static strength of lower-limb prosthetic sockets for the activities of daily living | Track 3 - Biomechanics and prosthetics |
| 6353 | Silvia Spadoni, Silvia Todros, Michael Magnussen, Dominique Scaglioni, Anna Urciuolo, Nicola Elvassore and Piero Pavan | Computational modelling of the contractile behavior of cardiomyocytes on hydrogel scaffolds for cardiac tissue regeneration | Track 3 - Biomechanics and prosthetics |
| 6743 | Lorenza Bonaldi, Chiara Giulia Fontanella, Carmelo Pirri, Carla Stecco and Alice Berardo | The biomechanical behaviour of fascial system: Superficial VS Deep Fascia | Track 3 - Biomechanics and prosthetics |
| 7023 | Sara Barbacane, Samira Giuliana Breban, Giacomo Fabris, Mattia Scapinello, Roberto Di Marco, Giuseppe | Analysis of an Elite Amputee Paralympic Sprinter in Track Running Pilot Tests | Track 3 - Biomechanics and prosthetics |

| | | | |
|------|---|--|---|
| | <p>Marcolin, Gian Luca Migliore, Andrea Giovanni Cutti and Nicola Petrone</p> | | |
| 7206 | <p>Valentina Ceserani, Mauro Lo Rito, Giovanni Maria Formato, Mauro Luca Agnifili, Antonio Rosato, Ariel Fernando Pascaner and Michele Conti</p> | <p>Lumped-parameter hemodynamic model as a non-invasive tool to assess coronary blood flow in AAOCA</p> | <p>Track 3 - Biomechanics and prosthetics</p> |
| 7999 | <p>Samira Giuliana Breban, Sara Barbacane, Valerio Pelusi, Roberto Di Marco, Giuseppe Marcolin, Andrea Giovanni Cutti and Nicola Petrone</p> | <p>Comparative Analysis of Steady and Resisted Accelerated Treadmill Running of an Elite Amputee Paralympic Sprinter</p> | <p>Track 3 - Biomechanics and prosthetics</p> |
| 8545 | <p>Emilia Scalona, Gianluca Rossetto, Martina Mosso, Maristella Francesca Saccomanno, Giuseppe Milano and Nicola Francesco Lopomo</p> | <p>Integrated Protocol for Multidimensional In Vivo Assessment of Glenohumeral Joint Function during Dynamic Tasks</p> | <p>Track 3 - Biomechanics and prosthetics</p> |
| 8994 | <p>Giacomo Villa, Marta Galeotti, Foivos Papaioannou, Veronica Cimolin and Manuela Galli</p> | <p>Motor performances evaluation of female soccer players from AC Trento Women</p> | <p>Track 3 - Biomechanics and prosthetics</p> |
| 9042 | <p>Chiara Falsina, Melania Maglio, Nicola Francesco Lopomo, Gianluca Giavaresi, Alberto Grassi, Stefano Zaffagnini, Massimiliano Baleani, Gregorio Marchiori and Matteo Berni</p> | <p>Development of a contrast-enhanced micro tomography protocol for human meniscus: a pilot study</p> | <p>Track 3 - Biomechanics and prosthetics</p> |

| | | | |
|------|--|--|--|
| 9149 | Antonio Rosato, Mauro Lo Rito, Giovanni Maria Formato, Serena Anglese, Valentina Ceserani, Ariel Fernando Pascaner and Michele Conti | Biomechanical assessment of the anomalous coronary compression by patient-specific finite element analysis | Track 3 - Biomechanics and prosthetics |
| 9676 | Vittoria Civilini, Vincenzo Giacalone, Alberto L. Audenino and Mara Terzini | Mechanical evaluation of synthetic meshes: definition and verification of a rigorous test protocol | Track 3 - Biomechanics and prosthetics |
| 9693 | Chiara Catalano, Stefano Cannata, Caterina Gandolfo and Salvatore Pasta | An Inverse Analysis for the Assessment of Material Properties of TAVI Patients | Track 3 - Biomechanics and prosthetics |
| 9817 | Roberto Gemelli, Martina Todesco, Emanuele Luigi Carniel, Gino Gerosa and Andrea Bagno | Mechanical characterization of hybrid membrane suitable for biomedical application | Track 3 - Biomechanics and prosthetics |
| 2930 | Martina Vescio, Matteo Bulloni, Andrea Brendolan and Linda Pattini | Exploring heterogeneity in lymphoid malignancies from mouse to human gene expression profiles | Track 9 - Bioinformatics and Synthetic Biology |
| 3085 | Caterina Alfano, Lorenzo Farina and Manuela Petti | Network-based integration of clinical, imaging and molecular biomarkers of dementia | Track 9 - Bioinformatics and Synthetic Biology |
| 3938 | Flavio Fontana, Piera Mancini, Ermes Botte, Chiara Magliaro and Arti Ahluwalia | Genetic Algorithms for the identification and design of physiologically relevant 3D constructs | Track 9 - Bioinformatics and Synthetic Biology |
| 4324 | Anna Procopio, Elvira Parrotta, Stefania Scalise, Nicola Cortese, Alessio Merola, Francesco Amato, Giovanni Cuda and Carlo Cosentino | A preliminary version of a Genome-Scale Metabolic Model for Induced Human Pluripotent Stem Cells (hiPSCs) | Track 9 - Bioinformatics and Synthetic Biology |
| 4995 | Andrea Ricci, Alfonso Gautieri, Giulia Di Rocco and Carlo Augusto Bortolotti | Giving new life to seafood waste: in silico engineering of a chitinolytic LPMO enzyme | Track 9 - Bioinformatics and Synthetic Biology |

| | | | |
|------|---|--|--|
| 5161 | Ermes Botte, Piera Mancini, Chiara Magliaro and Arti Ahluwalia | Oxygen metabolism in in vitro ecosystems | Track 9 - Bioinformatics and Synthetic Biology |
| 5649 | Debora Dallera, Stefano Quaranta, Davide De Marchi, Giovanni Cipriano, Paolo Magni and Lorenzo Pasotti | A bioinformatic pipeline for identifying bacterial constitutive promoters based on transcriptomic data analysis | Track 9 - Bioinformatics and Synthetic Biology |
| 5791 | Carlo Alberto Rossi, Ana Vinuela, Jochen M. Schwenk, Ewan R. Pearson, Andrea Mari and Roberto Bizzotto | Longitudinal relationships between proteomics and beta-cell dysfunction in type 2 diabetes: an IMI direct study | Track 9 - Bioinformatics and Synthetic Biology |
| 6041 | Veronica Zatta, Massimo Bellato, Alice Pegoraro, Giulia Bernabè, Sara Letrari, Astghik Stepanyan, Barbara Di Camillo, Paola Brun and Ignazio Castagliuolo | Lipid Droplets associated genes link HSV-1 infection to neurodegeneration pathways | Track 9 - Bioinformatics and Synthetic Biology |
| 6600 | Massimo Bellato, Marco Cappellato, Andrea Calzavara, Alessandro Lucchiarì, Sara Rebecca and Barbara Di Camillo | Simulating microbial communities' evolution via Agent base modelling: a Python tool | Track 9 - Bioinformatics and Synthetic Biology |
| 7032 | Alessandro Bernardi, Massimo Bellato, Riccardo Antonello, Barbara Di Camillo, Luca Schenato and Simone Del Favero | Automated control of bioreactors: An hardware-in-the-loop proof of concept test towards an experimental facility | Track 9 - Bioinformatics and Synthetic Biology |
| 7936 | Francesca Usai, Giada Loi, Franca Scocozza, Massimo Bellato, Paolo Magni, Michele Conti and Lorenzo Pasotti | A workflow for the construction of reproducible living biosensors built by printing bacterial materials | Track 9 - Bioinformatics and Synthetic Biology |
| 8626 | Chiara Cimolato, Gianluca Selvaggio, Massimo Bellato, Luca Marchetti and Luca Schenato | Uncovering quorum sensing and quenching structural properties: a systems biology approach | Track 9 - Bioinformatics and Synthetic Biology |

| | | | |
|------|---|--|--|
| 9059 | Federica Conte, Giulia Ficon and Paola Paci | Bioinformatics analyses to identify molecular gene signatures associated with breast cancer phenotypes | Track 9 - Bioinformatics and Synthetic Biology |
| 9879 | Giulia Ficon, Federica Conte and Paola Paci | A network-based algorithm for identifying drug repurposing opportunities for complex diseases | Track 9 - Bioinformatics and Synthetic Biology |

DAY 2 - 22/06/2023

Oral Session 2 MORNING (9:00 – 11:00)

| Time | Authors | Title | Track |
|-------|---|---|--|
| 9:00 | Alice Perego, Alice Pezzinga, Emilia Bellina and Luigi La Barbera | Assessment of a parametric thoracic spine model for the generation of in silico cohorts | Track 3 - Biomechanics and prosthetics |
| 9:15 | Simone Ranaldi, Leonardo Gizzi, Giacomo Severini and Cristiano De Marchis | Synergy-dependent patterns of reaction forces in sit-to-stand movements | Track 3 - Biomechanics and prosthetics |
| 9:30 | Anna Ramella, Francesco Migliavacca, Jose Felix Rodriguez Matas, Erica Mariani, Tim J. Mandigers, Daniele Bissacco, Antonio Freyrie, Santi Trimarchi and Giulia Luraghi | A numerical finite element methodology of the EVAR procedure | Track 3 - Biomechanics and prosthetics |
| 9:45 | Felicia Roffo, Alfonso Maria Ponsiglione, Paolo Antonio Netti and Enza Torino | coupled Hydrodynamic Flow Focusing to design Lipid-Polymer NPs (LiPoNs) for theranostics | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 10:00 | Cristian Brandi, Sergio Spanò, Gian Carlo Cardarilli, Enrico Verona, Luca Businaro, Paolo Bisegna, Adele De Ninno and Federica Caselli | Development of a microfluidic system for impedance-based cell sorting | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 10:15 | Valentina Galletta, Emma Chiaramello, Serena Fiocchi, Alessandra Marrella, Giulia Suarato, Marta Bonato, Marta Parazzini and Paolo Ravazzani | Magnetolectric nanoparticles as promising tools for motor nerve stimulation | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 10:30 | Federico Andrea Bologna, Alberto Audenino and Mara Terzini | Reducing bone plates standard fatigue test time with an analytical runout load prediction | Track 8 - Design and Validation of Biomedical Devices |
| 10:45 | Erika Roventini, Giulia Ballardini, Aliria Poliziani, Lorenzo Arrico and Leonardo Ricotti | Zwitterionic coatings for an implantable artificial pancreas | Track 8 - Design and Validation of Biomedical Devices |

Oral Session 3 MORNING (11:30 – 12:30)

| Time | Authors | Title | Track |
|-------|--|--|--|
| 11:30 | Augusto Bonilauri, Alice Pirastru, Francesca Sangiuliano Intra, Sara Isernia, Marta Cazzoli, Valeria Blasi, Giuseppe Baselli and Francesca Baglio | Development of a novel surface-based approach to quantify fNIRS-fMRI spatial correspondence | Track 5 - Biomedical Signal and Image Processing |
| 11:45 | Elena Idi, Eleonora Manzoni, Andrea Facchinetti, Giovanni Sparacino and Simone Del Favero | Supervised Learning-based Detection of Pressure-induced Failures in Continuous Glucose Sensors | Track 5 - Biomedical Signal and Image Processing |
| 12:00 | Roberta Saputo, Laura Sparacino, Riccardo Pernice, Francesca Gelpi, Vlasta Bari, Alberto Porta and Luca Faes | Assessment of cerebral autoregulation in patients undergoing anaesthesia with propofol: a comparison among spontaneous variability methods | Track 5 - Biomedical Signal and Image Processing |
| 12:15 | Michael Lassi, Carlo Fabbiani, Salvatore Mazzeo, Rachele Burali, Alberto Arturo Vergani, Giulia Giacomucci, Valentina Moschini, Filippo Emiliani, Maenia Scarpino, Silvia Bagnoli, Assunta Ingannato, Benedetta Nacmias, Sonia Padiglioni, Silvestro Micera, Sandro Sorbi, Antonello Grippo, Valentina Bessi and Alberto Mazzoni | Early stages of cognitive decline are characterized by different EEG microstates dynamics | Track 5 - Biomedical Signal and Image Processing |

Oral Session 3 AFTERNOON (15:30 – 16:45)

| Time | Authors | Title | Track |
|-------|---|--|--|
| 15:30 | Katerina Iskra, Aleksander Miladinovic, Milos Ajcevic, Laura Munaretto, Jacopo Giulio Rizzi, Marco Merlo and Agostino Accardo | Discriminatory power of Global Longitudinal Strain and Left Ventricular Ejection Fraction for Identification of Dilated Cardiomyopathy | Track 5 - Biomedical Signal and Image Processing |
| 15:45 | Serena Moscato, Silvia Orlandi, Andrea Giannelli, Rita Ostan, Silvia Varani and Lorenzo Chiari | Autonomic response to virtual reality in oncological patients in real-world context | Track 5 - Biomedical Signal and Image Processing |

| | | | |
|-------|---|--|--|
| 16:00 | Andrea Costanzo Palmisciano, Maximiliano Mollura, Riccardo Barbieri and Luca Mainardi | Quantitative validation of an automatic videoPPG technique during autonomic elicitations | Track 5 - Biomedical Signal and Image Processing |
| 16:15 | Ester Bruno, Simone Cauzzo, Alejandro Callara, Arti Ahluwalia, Chiara Magliaro and Nicola Vanello | Hessian-based neck tracing of dendritic spines: a preliminary study on confocal images | Track 5 - Biomedical Signal and Image Processing |
| 16:30 | Francesco Branciforti, Kristen Meiburger, Elisa Zavattaro, Federica Veronese, Vanessa Tarantino, Paola Savoia and Massimo Salvi | Quality enhancement of dermatological images using GANs: a proof of concept | Track 5 - Biomedical Signal and Image Processing |

Poster Session 2 (12:30 – 14:30)

| ID # | Authors | Title | Track |
|------|---|--|--|
| 210 | Manuela Moretto, Ilaria Di Vico, Agnese Tamanti, Giovanni Tomelleri, Daniel Martins, Ottavia Dipasquale, Mattia Veronese, Alessandra Bertoldo, Sarah Ottaviani, Francesca Benedetta Pizzini, Michele Tinazzi and Marco Castellaro | Associations between fatigue and functional connectivity of dopamine and noradrenaline circuits in Parkinson's disease | Track 5 - Biomedical Signal and Image Processing |
| 270 | Stefano Franceschini, Michele Ambrosanio, Maria Maddalena Autorino, Vito Pascazio and Fabio Baselice | Breast Cancer Detection via Two-dimensional Ultrasound Tomography | Track 5 - Biomedical Signal and Image Processing |
| 367 | Matteo Moro, Vito Paolo Pastore, Giorgia Marchesi, Luca Garello, Chiara Tacchino, Paolo Moretti, Matilde Inglese, Francesca Odone and Maura Casadio | Computer Vision and Deep Learning for Human Motion Analysis | Track 5 - Biomedical Signal and Image Processing |
| 484 | Camilla Sala, Camillo Porcaro, Stephen D. Mayhew and Andrew Bagshaw | fMRI characterization of intrinsic brain networks relevant for motor control with and without visual feedback by fractal dimension | Track 5 - Biomedical Signal and Image Processing |

| | | | |
|------|---|--|--|
| 626 | Fiorella Anna Lombardi, Paola Pisani, Alessandra Natale, Ernesto Casciaro, Fabiola Rosa Contaldo, Roberto Franchini, Maurizio Muratore, Francesco Conversano and Sergio Casciaro | Radiofrequency Echographic Multi Spectrometry for Fragility Fracture prediction through Fragility Score | Track 5 - Biomedical Signal and Image Processing |
| 1288 | Giulia Saccomano, Francesco Brun, Diego Dreossi, Giuliana Tromba, Luca Brombal and Maurizio Pinamonti | Towards 3D Virtual Histology of melanoma tissue by means of lab-based X-ray Phase Contrast Computed Micro-Tomography | Track 5 - Biomedical Signal and Image Processing |
| 1682 | Serena Moscato, Wenchao Zhu, Yikang Guo, Sagar Kamarthi, Carin Ann Colebaugh, Kristin L. Schreiber, Robert Randolph Edwards, Richard D. Urman, Yan Xiao, Lorenzo Chiari and Yingzi Lin | Comparison of autonomic signals between healthy subjects and chronic low back pain patients at rest and during noxious stimulation | Track 5 - Biomedical Signal and Image Processing |
| 1979 | Alessandro Pasquale De Rosa, Alessandro d'Ambrosio, Chiara Marzi, Mario Cirillo, Alvino Bisecco, Manuela Altieri, Stefano Diciotti, Maria Assunta Rocca, Nicola De Stefano, Patrizia Pantano, Massimo Filippi, Gioacchino Tedeschi, Antonio Gallo and Fabrizio Esposito | XGBoost vs. TabPFN in Neuroimaging Machine Learning-based analysis | Track 5 - Biomedical Signal and Image Processing |
| 2048 | Gianluca Rho, Alejandro Luis Callara, Cinzia Cecchetto, Roberto Garofalo, Tommaso Lomonaco, Enzo Pasquale Scilingo and Alberto Greco | Effect of EDA-driven sympathetic responses on the central processing of faces cued by hedonic odors: a preliminary ERP study | Track 5 - Biomedical Signal and Image Processing |
| 2115 | Roberto Billardello, Francesca Cordella, Francesca Leone, Federico Mereu, Emanuele Gruppioni and Loredana Zollo | Comparative analysis of EMG-based classifiers for recognizing hand/wrist gestures and forces | Track 5 - Biomedical Signal and Image Processing |
| 2487 | Manuel Maggio, Tommaso | Osteoporosis Identification at Lumbar | Track 5 - Biomedical |

| | | | |
|------|---|---|--|
| | De Marco, Francesco Conversano, Giulia Macchia, Ivan Primitivo, Fiorella Lombardi, Paola Pisani and Sergio Casciaro | Vertebrae through a Neural Network Classifier | Signal and Image Processing |
| 2856 | Giulio Steyde, Edoardo Spairani, Beniamino Daniele, Giovanni Magenes and Maria Gabriella Signorini | Cardiotocography in antenatal fetal monitoring of diabetes-complicated pregnancies | Track 5 - Biomedical Signal and Image Processing |
| 2931 | Simone Papallo, Ester Riccio, Alessandro Pasquale De Rosa, Mario Cirillo, Francesco Amato, Mario Sansone and Fabrizio Esposito | Control Theory Measures for Dynamic Analyses of Human Functional Connectome Data | Track 5 - Biomedical Signal and Image Processing |
| 3077 | Ilaria Quattrociochi, Donatella Mattia, Angela Riccio, Mariagrazia D'Ippolito, Marta Aloisi, Rita Formisano and Jlenia Toppi | EEG-based quantitative measures to support the clinical diagnosis of disorders of consciousness | Track 5 - Biomedical Signal and Image Processing |
| 3179 | Stefano Franceschini, Maria Maddalena Autorino, Michele Ambrosanio, Vito Pascazio and Fabio Baselice | A Novel Authentication System Based on Hand Gesture Ultrasound Signatures | Track 5 - Biomedical Signal and Image Processing |
| 3298 | Tommaso Ciceri, Letizia Squarcina, Adele Ferro, Florian Montano, Alessandra Bertoldo, Nicola Persico, Simona Boito, Fabio Triulzi, Giorgio Conte, Paolo Brambilla and Denis Peruzzo | A comparative study of Super-Resolution reconstruction methods in fetal MRI | Track 5 - Biomedical Signal and Image Processing |
| 3396 | Agnese Sbröllini, Sofia Romagnoli, Emanuela Teresina Locati, Micaela Morettini and Laura Burattini | Brugada Syndrome: Characterization of QT Interval Components and Correction | Track 5 - Biomedical Signal and Image Processing |
| 3449 | Ilaria Marcantoni, Giusi Piccolantonio, Elena Vitti, Gabriele Polonara, Mojgan Ghoushi, Marco Valenti, Luca Reversi, Nicoletta Foschi, Simona Lattanzi, Laura | Interhemispheric functional connectivity: an fMRI study in two split-brain patients | Track 5 - Biomedical Signal and Image Processing |

| | | | |
|------|--|---|--|
| | Burattini and Mara Fabri | | |
| 3468 | Antonio Colucci, Giusy Peluso, Fiorella Anna Lombardi, Mauro Bellone, Francesco Conversano, Roberto Franchini, Paola Pisani, Italo Epicoco, Massimo Cafaro and Sergio Casciaro | A convolutional neural network to identify osteoporosis from femoral echographic scans: a preliminary study | Track 5 - Biomedical Signal and Image Processing |
| 4021 | Marta Iovino, Michal Javorka, Luca Faes and Riccardo Pernice | Comparison of Machine Learning Approaches for Physiological States Classification Using Heart Rate and Pulse Rate Variability Indices | Track 5 - Biomedical Signal and Image Processing |
| 4223 | Andrea Gerardo Russo, Assunta Ciarlo, Francesco Di Salle, Mario Sansone, Gioacchino Tedeschi and Fabrizio Esposito | Bayesian Surprise from a Deep Learning Model of Italian Language to Model Neural Activity | Track 5 - Biomedical Signal and Image Processing |
| 4348 | Luca Soliveri, Michela Bozzetto, Paolo Brambilla, Anna Caroli and Andrea Remuzzi | The role of hemodynamics in arteriovenous fistula remodelling and failure. A CFD longitudinal study | Track 5 - Biomedical Signal and Image Processing |
| 4420 | Andrea Pitzus, Giulia Baldazzi, Graziana Viola, Luigi Raffo and Danilo Pani | Abnormal Ventricular Potentials Identification Using a Siamese Neural Network | Track 5 - Biomedical Signal and Image Processing |
| 4425 | Francesca Angelone, Alfonso Maria Ponsiglione, Maria Paola Belfiore, Gianluca Gatta, Roberto Grassi, Francesco Amato and Mario Sansone | Evaluation of breast density variability between right and left breasts | Track 5 - Biomedical Signal and Image Processing |
| 4448 | Simone Kresevic, Milos Ajcevic, Mauro Giuffrè, Pierpaolo Pupa, Carlo Moretto, Simone Pennini, Lory Saveria Crocè and Agostino Accardo | Estimating the degree of Non-Alcoholic Fatty Live Disease (NAFLD) from ultrasound images: preliminary results | Track 5 - Biomedical Signal and Image Processing |

| | | | |
|------|---|--|--|
| 4679 | Luigi Antelmi, Antonio Colucci, Fiorella Anna Lombardi, Alessia Centonze, Tommaso De Marco, Francesco Conversano, Paola Pisani and Sergio Casciaro | Soft-tissue alterations identified with a CNN trained with simulated ultrasound images integrating expert knowledge | Track 5 - Biomedical Signal and Image Processing |
| 4739 | Federica Cruciani, Ettore Cinquetti, Lorenza Brusini, Anonino Aparo, Carlo Combi, Ilaria Boscolo Galazzo and Gloria Menegaz | Exploring the potential of MCVAE for patients stratification and skewed data compensation across the AD continuum | Track 5 - Biomedical Signal and Image Processing |
| 4743 | Marta Gaviraghi, Baris Kanber, Antonio Ricciardi, Fulvia Palesi, Francesco Grussu, Carmen Tur, Alberto Calvi, Rebecca Samson and Claudia Angela Michela Gandini Wheeler-Kingshott | A deep learning network from downsampled diffusion-weighted MRI k-space to image-space | Track 5 - Biomedical Signal and Image Processing |
| 4797 | Jiaying Liu, Anna Corti, Giuseppina Calareso, Valentina Corino and Luca Mainardi | Distinguishing lymph nodes in head and neck cancer patients using MRI-based radiomics | Track 5 - Biomedical Signal and Image Processing |
| 4987 | Maria Maddalena Autorino, Stefano Franceschini, Michele Ambrosanio, Fabio Baselice and Vito Pascazio | A deep learning approach for the analysis of voxel composition in magnetic resonance imaging | Track 5 - Biomedical Signal and Image Processing |
| 5208 | Letizia Squarcina, Giuseppe Delvecchio, Matilde Pavan, Cinzia Perlini, Marcella Bellani, Antonio Lasalvia, Annamaria Finardi, Mirella Ruggeri, Roberto Furlan and Paolo Brambilla | Association between inflammation and brain microstructure in First Episode Psychosis investigated with DTI | Track 5 - Biomedical Signal and Image Processing |
| 5303 | Giovanni Corvini, Silvia Conforto, Simone Ranaldi, Maurizio Schmid and Daniele Bibbo | Analysis of muscular activity of a cashier during different modalities of human robot collaboration | Track 5 - Biomedical Signal and Image Processing |
| 5531 | Daniela De Luca, Sara Moccia, Raffaele Mazziotti, Leonardo Lupori, Tommaso | Machine learning-based classification of cortical response to visual stimuli recorded with an ECoG array in mice: a case study | Track 5 - Biomedical Signal and Image Processing |

| | | | |
|------|---|---|--|
| | Pizzorusso and Silvestro Micera | | |
| 5579 | Cristian Drudi, Maximiliano Mollura and Riccardo Barbieri | Effects of State Representation on a Reinforcement Learning Based Decision Support System | Track 5 - Biomedical Signal and Image Processing |
| 5692 | Daniela Cardone, David Perpetuini, Michele Tritto, Sergio Nocco, Alessandro Tiberio and Arcangelo Merla | Driver drowsiness detection relying on infrared thermal imaging: a machine learning approach | Track 5 - Biomedical Signal and Image Processing |
| 5865 | Edoardo Maria Polo, Maximiliano Mollura, Alessia Paglialonga and Riccardo Barbieri | Decoding Emotions through Music: A Physiological Analysis of Emotion Recognition | Track 5 - Biomedical Signal and Image Processing |
| 6198 | Alessio Giacomel, Daniel Martins, Giovanna Nordio, Rubaida Easmin, Oliver Howes, Steven C.R. Williams, Federico Turkheimer, Marius de Groot, Ottavia Dipasquale and Mattia Veronese | Assessing Multisite PET Neuroimaging Harmonisation for Normative Modelling | Track 5 - Biomedical Signal and Image Processing |
| 6319 | Alfonso Maria Ponsiglione, Annarita Tedesco, Noemi Pisani, Leandro Donisi, Carlo Ricciardi, Maria Romano and Francesco Amato | A Multiparameter Statistical Approach for Cardiotocographic Signals Analysis | Track 5 - Biomedical Signal and Image Processing |
| 6370 | Laura Marzetti, Alessio Basti, Roberto Guidotti, Guido Nolte and Vittorio Pizzella | Disclosing brain functional connections with multi-dimensional approaches | Track 5 - Biomedical Signal and Image Processing |
| 6380 | Ettore Cinquetti, Ilaria Siviero, Silvia Francesca Storti and Gloria Menegaz | Enhancing Safety in Industry 4.0: The Use of Passive Brain Computer Interfaces for Vigilance Monitoring | Track 5 - Biomedical Signal and Image Processing |
| 6402 | Francesco Giardini, Eleonora Barcali, Martino De Santis, Benedetta Olmi, Erica Lazzeri, Cosimo Nardi and Leonardo Bocchi | Optimization of a cardiac tissue segmentation pipeline in murine whole-heart reconstructions | Track 5 - Biomedical Signal and Image Processing |
| 6448 | Marco Carbonaro, Robin Rohlén, Silvia Seoni, Kristen | Combining high-density electromyography and ultrafast ultrasound to assess individual | Track 5 - Biomedical Signal and Image Processing |

| | | | |
|------|---|--|--|
| | Meiburger, Taian Vieira, Christer Grönlund and Alberto Botter | motor unit properties in vivo | Processing |
| 6514 | Assunta Ciarlo, Andrea G. Russo, Andrea Viggiano, Carmine Secondulfo, Francesco Di Salle, Fabrizio Esposito and Antonietta Canna | Tensor-based morphometry of T1 weighted brain images reveals subtle volume enlargement of temporalis muscles | Track 5 - Biomedical Signal and Image Processing |
| 6559 | Alice Giubergia, Sara Mascheretti, Valentina Lampis, Tommaso Ciceri, Francesca Maccarone, Martina Villa, Chiara Andreola, Filippo Arrigoni, Alessandra Bertoldo and Denis Peruzzo | Pseudo resting-state investigation from task-evoked functional MRI signals | Track 5 - Biomedical Signal and Image Processing |
| 6869 | Alberto Morelli, Leonardo Bocchi and Piergiorgio Francia | Phase synchronization between breathing and ppg signals in sleep events recordings of adult subjects | Track 5 - Biomedical Signal and Image Processing |
| 7227 | Maria Colpo, Erica Silvestri, Umberto Villani, Mariagiulia Anglani, Diego Cecchin, Maurizio Corbetta and Alessandra Bertoldo | Impact of diffusion connectivity metrics on white matter abnormalities in glioma | Track 5 - Biomedical Signal and Image Processing |
| 7317 | Simona Di Meo, Giulia Bertuzzi, Giulia Matrone, Giovanni Magenes and Marco Pasian | Millimeter-Waves Imaging for Breast Cancer Detection: Development of Analytical Models | Track 5 - Biomedical Signal and Image Processing |
| 7363 | Antonio Nocera, Federica Verdini, Sandro Fioretti, Gianluca Ciattaglia, Michela Raimondi, Laura Burattini, Linda Senigagliesi and Ennio Gambi | mmWave Radars Data Processing for Gait Parameters Extraction | Track 5 - Biomedical Signal and Image Processing |
| 7430 | Francesco Marzola, Nens van Alfen, Massimo Salvi, Jonne Doorduyn and Kristen Meiburger | Synthesis of ultrasound images from semantic labels with controllable texture features | Track 5 - Biomedical Signal and Image Processing |

| | | | |
|------|--|--|--|
| 7517 | Eleonora Lupi, Marta Gaviraghi, Simone Rancati, Fulvia Palesi, Francesco Grussu, Marco Battiston, Carmen Tur, Alberto Calvi, Sara Collorone, Antonio Ricciardi, Ferran Padros, Baris Kanber, Egidio D'Angelo, Rebecca Samson and Claudia Am Gandini Wheeler-Kingshott | Myelin quantification in Magnetic Resonance Imaging | Track 5 - Biomedical Signal and Image Processing |
| 7604 | Giovanna Nordio, Rubaida Easmin, Alessio Giacomel, Ottavia Dipasquale, Daniel Martins, Astrid Schiulaz, Steven Williams, Federico Turkheimer, Oliver Howes and Mattia Veronese | Automated quantification of FDOPA PET using XNAT | Track 5 - Biomedical Signal and Image Processing |
| 7618 | Michele Ambrosanio, Martina Teresa Bevacqua, Tommaso Isernia, Joe Lo Vetri and Vito Pascazio | Experimental Microwave Imaging of Human Forearm | Track 5 - Biomedical Signal and Image Processing |
| 7914 | Elena Hilary Rondoni, Matteo Pizzinga, Francesca Lanzarini, Monica Maranesi, Davide Albertini, Luca Bonini and Alberto Mazzoni | K-medoid clustering of premotor firing patterns supports fine decoding of macaque reach-and-grasp | Track 5 - Biomedical Signal and Image Processing |
| 7919 | Valentina Visani, Valerio Natale, Annalisa Colombi, Agnese Tamanti, Alessandra Bertoldo, Corina Marjin, Giuseppe Kenneth Ricciardi, Francesca Benedetta Pizzini, Massimiliano Calabrese and Marco Castellaro | Impact of model selection procedure on Deep Neural Networks ensemble for the Choroid Plexus segmentation in Multiple Sclerosis | Track 5 - Biomedical Signal and Image Processing |
| 7923 | Giulia Nanto, Alexa Berto, Luigi Dall'Olmo, Christian Ciolfi, Filippo Scolaro, Mauro Alaibac, Simone Mocellin, Antonio Galgaro and Fabio Scarpa | 3D moles mapping and analysis for automatic melanoma detection | Track 5 - Biomedical Signal and Image Processing |

| | | | |
|------|--|--|--|
| 7942 | Andrea Farabbi, Luigi Pizzulli, Eleonora Sala, Letizia Santini and Luca Mainardi | Error perception in different environments: Monitor vs Augmented Reality | Track 5 - Biomedical Signal and Image Processing |
| 7954 | Francesca Peveri, Gabriele Arnulfo, Silvio Paolo Sabatini and Andrea Canessa | Time-frequency analysis of brain response to 3D slant texture and stereo cues | Track 5 - Biomedical Signal and Image Processing |
| 8050 | Michele Ambrosanio, Stefano Franceschini, Maria Maddalena Autorino, Fabio Baselice and Vito Pascazio | Breast Cancer Imaging at Microwave Frequencies via Neural Networks | Track 5 - Biomedical Signal and Image Processing |
| 8305 | Andrea Ranieri, Floriana Pichiorri, Emma Colamarino, Valeria de Seta, Donatella Mattia and Jlenia Toppi | On the use of PARAFAC algorithm in group network analysis: a simulation study | Track 5 - Biomedical Signal and Image Processing |
| 8606 | Edoardo Spairani, Giulio Steyde, Beniamino Daniele, Maria Gabriella Signorini and Giovanni Magenes | Hidden Markov Models for the identification of fetal phases in CTG recordings | Track 5 - Biomedical Signal and Image Processing |
| 8710 | Alberto Arturo Vergani, Carlo Fabbiani, Salvatore Mazzeo, Rachele Burali, Michael Lassi, Giulia Giacomucci, Valentina Moschini, Filippo Emiliani, Maenia Scarpino, Silvia Bagnoli, Assunta Ingannato, Benedetta Nacmias, Sonia Padiglioni, Sandro Sorbi, Antonello Grippo, Valentina Bessi and Alberto Mazzoni | P300 event-related potential in patients with cognitive decline correlates with task performance | Track 5 - Biomedical Signal and Image Processing |
| 8813 | Maria Rubega, Matilde Paramento, Stefano Masiero and Emanuela Formaggio | Cortical correlates in upright static balance in adolescent idiopathic scoliosis | Track 5 - Biomedical Signal and Image Processing |
| 8920 | Virginia Filippi, Edoardo Paolini, Federica Cruciani, Lorenza Brusini, Francesco Dal Santo, Gloria Menegaz, Ilaria Boscolo Galazzo and Silvia Francesca Storti | Decoding the interplay between brain structural and functional connectivity in Alzheimer's disease | Track 5 - Biomedical Signal and Image Processing |
| 9079 | Roberto Guidotti, Alessio | Closing the loop between neurostimulation | Track 5 - Biomedical |

| | | | |
|------|--|--|--|
| | Basti, Giulia Pieramico, Antea D'Andrea, Gian Luca Romani, Vittorio Pizzella and Laura Marzetti | and control theory | Signal and Image Processing |
| 9118 | Paolo Tasca, Francesca Salis, Samanta Rosati, Gabriella Balestra and Andrea Cereatti | A machine learning approach for stride speed estimation based on a head-mounted IMU | Track 5 - Biomedical Signal and Image Processing |
| 9255 | Alessandra Calcagno, Stefania Coelli, Federico Temporiti, Manuela Galli, Roberto Gatti and Anna Maria Bianchi | Differences in cortical reorganization during visuo-motor tasks executed with the dominant and non-dominant hands | Track 5 - Biomedical Signal and Image Processing |
| 9275 | Marco Romanato, Francesco Di Nardo, Fabiola Spolaor, Daniele Volpe, Sandro Fioretti and Zimi Sawacha | Alteration of muscle recruitment in Parkinson's disease assessed by EMG-based occurrence frequency | Track 5 - Biomedical Signal and Image Processing |
| 9378 | Monica Roascio, Rosella Trò, Dario Arnaldi, Francesco Famà, Pietro Mattioli, Ki-Young Jung and Gabriele Arnulfo | Altered EEG amplitude coupling correlates to cognitive dysfunction in iRBD patients | Track 5 - Biomedical Signal and Image Processing |
| 9451 | Barbara Puccio, Ugo Lomoio, Raffaele Giancotti, Mattia Cannistrà, Sergio Flesca, Francesco Scala, Giuseppe Tradigo, Pietro Hiram Guzzi, Pierangelo Veltri and Patrizia Vizza | Validating biomedical and clinical data via an annotations based framework: experiences within the PON VQA project | Track 5 - Biomedical Signal and Image Processing |
| 9564 | David Perpetuini, Daniela Cardone, Michele Tritto, Sergio Nocco, Alessandro Tiberio and Arcangelo Merla | Drivers' mental workload assessment based on machine learning applied to multimodal physiological data | Track 5 - Biomedical Signal and Image Processing |
| 9616 | Elisa Pellizzari, Francesco Prendin, Giacomo Cappon, Giovanni Sparacino and Andrea Facchinetti | Algorithm based on the "dynamic risk" concept allows ahead-of-time suggestion of corrective insulin boluses in type 1 diabetes therapies employing continuous glucose monitors | Track 5 - Biomedical Signal and Image Processing |
| 9625 | Giulia Pagnin, Giorgia Baron, Erica Silvestri, Alessandro Chiuso, Diego Cecchin, | Assessing the impact of brain gliomas on effective connectivity gradients | Track 5 - Biomedical Signal and Image Processing |

| | | | |
|------|---|---|--|
| | Maurizio Corbetta and Alessandra Bertoldo | | |
| 9628 | Giulia Vallini, Erica Silvestri, Alessandro Panciera, Marco Aiello and Alessandra Bertoldo | Assessment of the effects of parcellation and frequency band on the definition of functional hubs in rsfMRI | Track 5 - Biomedical Signal and Image Processing |
| 9630 | Francesca Lo Iacono, Martina Minotti, Marco Guglielmo, Marco Penso, Maria Ludovica Carerj, Gianluca Pontone and Valentina D.A. Corino | Radiomic analysis of Epicardial Adipose Tissue in cardiac MRI for hospitalization risk assessment | Track 5 - Biomedical Signal and Image Processing |
| 9852 | Nicolas Emiliani, Federico Babini, Chiara Gulotta, Giovanni Badiali, Emanuela Marcelli and Laura Cercenelli | Augmented Reality to Evaluate Temporo-Mandibular Joint Alterations in Orthognathic Patients | Track 5 - Biomedical Signal and Image Processing |
| 9971 | Rocco Morello, Maria Giovanna Di Trani, Andrea Dall'Asta, Francesco Conversano, Paola Pisani, Marco Di Paola, Tullio Ghi and Sergio Casciaro | Transfer learning approaches to classify foetal occiput positions on transperineal ultrasound images | Track 5 - Biomedical Signal and Image Processing |
| 9988 | Federica Giorgini, Stefano Diciotti and Chiara Marzi | The hidden structural complexity of the human cerebral cortex | Track 5 - Biomedical Signal and Image Processing |
| 285 | Samuele Fiorenza, Paolo Antonio Netti and Enza Torino | Prediction of injectables' stability leveraging inline analysis and machine learning | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 717 | Marika Sperduti, Nevio Luigi Tagliamonte, Costantino Casale, Paolo Antonio Netti and Loredana Zollo | A testbed for mechanical and thermal stimulation in studies of somatosensory functions | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 1988 | Simona Silvestri, Eugenia Romano, Paolo Antonio Netti and Enza Torino | Engineering of biological entities through dynamic perturbations of lipidic membranes. | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 2419 | Elena Aprea, Alice Giannotti, Outman Akouissi and Silvestro Micera | Mechanical validation of an innovative intrafascicular neural interface to restore urinary bladder dysfunctions | Track 6 - Neural Engineering and Micro and Nano-technologies |

| | | | |
|------|--|---|--|
| 2649 | Giulia Parodi, Michela Chiappalone and Sergio Martinoia | Development of excitatory neuronal networks derived from human induced pluripotent stem cells | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 3258 | Oswaldo Bortone, Paolo A. Netti and Enza Torino | A novel microfluidic-based approach to study protein stability behavior in highly concentrated and viscous (HCV) systems | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 3798 | Marta Carè, Federico Barban, Mattia Di Florio, Rosaria Greco, Cristina Tassorelli and Michela Chiappalone | Towards personalized electroceutical therapy: electrophysiological investigations in a pre-clinical model of ischemic lesion | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 4474 | Angela Costagliola Di Polidoro, Joost Haeck, Laura Mezzanotte, Martine Lamfers and Enza Torino | Boosted transport of Theranostic Angiopep-2 engineered crosslinked Hyaluronic Acid NanoParticles (Thera-ANG-cHANPs) in glioblastoma cells | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 8032 | Simone Perottoni, Alessandro Bonacina, Ruben Dell'Oro, Francesca Donnalaja, Lucia Boeri, Luca Magagnin, Diego Albani and Carmen Giordano | Integrated sensors for real-time monitoring of biological barriers in engineered cell culture dynamic in vitro models | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 8074 | Fabio Terranova, Andrea Spanu, Annalisa Bonfiglio and Sergio Martinoia | PEDOT:PSS ink-jet printed microelectrodes on paper: towards low-cost and green MEA devices | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 8821 | Andrea Andolfi, Pietro Arnaldi, Donatella Di Lisa, Monica Frega, Sergio Martinoia and Laura Pastorino | Photosensitive pattern to control geometry and activity of a neural network | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 8885 | Silvia Gallucci, Martina Benini, Marta Bonato, Emma Chiaramello, Serena Fiocchi, Gabriella Tognola and Marta Parazzini | Exposure Assessment of Young People to Wearable Antennas at 5G frequencies | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 9528 | Martina Brofiga, Francesca Callegari, Fabio Poggio, Ilaria Donati della Lunga, Letizia Cerutti, Mariateresa Tedesco | Interconnected brain regions-on-a-chip: role of connectivity and heterogeneity in the electrophysiological activity | Track 6 - Neural Engineering and Micro and Nano-technologies |

| | | | |
|------|--|---|--|
| | and Paolo Massobrio | | |
| 9857 | Martina Benini, Marta Bonato, Silvia Gallucci, Serena Fiocchi, Emma Chiaramello, Marta Parazzini and Gabriella Tognola | Comparison of RF exposure levels in 5G-V2X and ITS-5.9 GHz vehicular connectivity | Track 6 - Neural Engineering and Micro and Nano-technologies |
| 9858 | Vinícius Cota, Gianluca Federici, Gabriele Arnulfo and Michela Chiappalone | Profiling of phase-amplitude couplings across sleep for personalized neuroengineering systems | Track 6 - Neural Engineering and Micro and Nano-technologies |

DAY 3 - 23/06/2023

Oral Session 4 MORNING (9:00 – 11:00)

| Time | Authors | Title | Track |
|-------|--|---|---|
| 09:00 | Elena Zeni, Paola Brun, Leonardo Cassari, Giovanna Iucci, Antonio Gloria, Annj Zamuner and Monica Dettin | Peptide-functionalized chitosan sponges for bone tissue regeneration | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 09:15 | Donatella Di Lisa, Lorenzo Muzzi, Elena Dellacasa, Monica Frega, Sergio Martinoia and Laura Pastorino | Innovation in neuronal cell culture: from adhesion to maturation, chitosan promotes developing nervous system | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 09:30 | Alessio Esposito, Irene Chiesa, Claudia Dell'Amico, Marco Onorati and Carmelo De Maria | Development of analytical models to predict self-folding of 4D bioprinted scaffold | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 09:45 | Francesco Iacoponi, Fabio Orlando, Soria Gasparini, Tiziano Pratellesi, Andrea Cafarelli and Leonardo Ricotti | Dose-controlled low-intensity pulsed ultrasound and pulsed electromagnetic fields stimulations modulate inflammation in human macrophages | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 10:00 | Elena Carrara, Sofia Poloni, Chiara Emma Campiglio, Elisa Riceputi, Michela Bozzetto and Andrea Remuzzi | In vitro exposure of endothelial cells to mechanical vibrations | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 10:15 | Nina Bono, Federica Ponti, Luca Russo, Paolo Bigini, Diego Mantovani and Gabriele Candiani | Vibropolyfection: boosting polymer-mediated gene delivery by mechanical cell loading | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 10:30 | Mara Scattolini, Andrea Tigrini, Federica Verdini, Sandro Fioretti, Laura Burattini, Micaela Morettini and Alessandro Mengarelli | A Reliable User-Independent Motion Intent Detection from Transient EMG Data for Shoulder Joint | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 10:45 | Martina Lapresa, Emilio Maria Romano, Loredana Zollo and Francesca Cordella | Performance Evaluation of the Gloreha Sinfonia Device in Bimanual Modality | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |

Poster Session 3 (12:30 – 14:30)

| ID # | Authors | Title | Track |
|------|---|--|---|
| 261 | Marta Confalonieri, Silvia Barbon, Elena Stocco, Veronica Macchi, Raffaele De Caro, Silvia Todros, Andrea Porzionato and Piero Giovanni Pavan | Composite scaffolds based on polyvinyl alcohol and acellular cartilage matrix for hemophilic arthropathy treatment | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 521 | Elena Bianchi, Cecilia Crescioli, Paola De Stefano, Gabriele Dubini and Alessandro F. M. Pellegata | Micropatterned PDMS substrates for cellular mechanotransduction modelling | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 619 | Giovanni Perotto, Federica Ponti, Giulio Saroglia, Stefania Marcuzzo, Eleonora Giagnorio, Giuseppe Lauria Pinter, Elena Rosini, Luigi De Nardo, Athanassia Athanassiou, Gabriele Candiani and Nina Bono | Cell encapsulation into silk fibroin microgels | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 657 | Alessandra Maria Anna Rando, Lorenzo Pietro Coppadoro, Sabrina Nicolò, Maria Lombardi, Chiara Foglieni, Gianfranco Beniamino Fiore and Monica Soncini | Tuning the features of microphysiological systems for biomimetic intestinal in vitro models | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 705 | Ignazio Niosi, Lorenzo Vannozzi, Diego Trucco, Silvia Farè and Leonardo Ricotti | Injectable gelatin-based photocurable fiber-reinforced hydrogel for the treatment of osteochondral defects | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 1305 | Giovanni Lo Bello, Roberto Raiteri, Elena Dellacasa, Orietta Monticelli, Maria Luisa Cristina and Laura Pastorino | Green-Based Anti-Biofilm Nanoformulations Against Bacterial Contaminations In Nosocomial Environments | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 1552 | Salvatore D'Alessandro, Andrada Pica, Franco Marinozzi, Fabiano Bini and Gianluca Cidonio | Near Field Electrospinning Process Using a Multi-Axis Robot | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |

| | | | |
|------|---|---|---|
| 1617 | Martina Todesco, Roberto Luisetto, Martina Casarin, Saima Jalil Imran, Gino Gerosa, Chiara Giulia Fontanella and Andrea Bagno | Biological evaluation in vitro and in vivo of hybrid membrane to assess biomedical application | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 1627 | Francesco Urciuolo, Giorgia Imparato, Vincenza de Gregorio and Paolo Antonio Netti | Bio-fabrication of in vitro tissues possessing organ-specific endogenous extracellular matrices | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 1693 | Chiara Merli, Claudia Capitini, Martino Calamai, Gabriele Frediani, Federico Carpi and Caterina Credi | Hydrogel-based photopolymers for 3D printing of scaffolds by bench-top stereolithography | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 1899 | Eugenia Spessot, Aurora Battistella, Antonella Motta and Devid Maniglio | Assessment of printability on autoclaved biomaterial inks for extrusion bioprinting | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 2814 | Alessandro Cordiale, Mattia Ballerini, Luigi Nezi, Paola Occhetta and Marco Rasponi | Intestinal epithelium on chip for absorption studies | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 3109 | Francesco Lopresti, Vincenzo La Carrubba, Simona Campora and Giulio Gherzi | Effect of Chitosan coating on PLA electrospun scaffolds for bone tissue engineering | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 3209 | Edmondo Battista, Sabrina Napoletano, Maria Isabella Maremonti, David Dannhauser, Paolo Antonio Netti and Filippo Causa | Microgels as a Biosensing Platform | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 3333 | Piera Mancini, Ermes Botte, Chiara Magliaro and Arti Ahluwalia | Experimental and computational pipeline for identifying oxygen metabolic rate parameters in 2D and 3D in vitro constructs | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 3532 | Stefania Villani, Sanosh Kunjalukkal Padmanabhan, Mariangela Stoppa, Rossella Nisi, Antonio Licciulli, Pietro Alifano and Christian Demitri | Antibacterial activity of bacterial cellulose based wound care paste | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 3720 | Tatiana Mencarini, Eleonora Puce, Mariagrazia Calogiuri, Mariangela Scavone, Silvia Bozzi and Alberto Redaelli | Microfluidic system for a label-free, real-time functional assessment of thrombotic risk | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |

| | | | |
|------|---|--|---|
| 3849 | Maria Isabella Maremonti, David Dannhauser, Valeria Panzetta, Paolo Antonio Netti and Filippo Causa | In-flow viscoelastic compression to probe single-cell biomechanical properties | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 4163 | Chiara Cimmino, Paolo Antonio Netti and Maurizio Ventre | Mesenchymal Stem Cell Response to Micropatterns and Dynamic Topographies | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 4166 | Amedeo Franco Bonatti, Irene Chiesa, Gabriele Maria Fortunato, Aurora De Acutis, Giovanni Vozzi and Carmelo De Maria | Cell-aware optimization of the extrusion-based bioprinting process | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 4203 | Costanza Daddi, Matteo Baggiani, Matteo Nicoletta, Simone Micalizzi, Gabriele Maria Fortunato, Aurora De Acutis, Carmelo De Maria, Marco Onorati and Giovanni Vozzi | 3D bioprinting as a tool for the early correction of leather defects in the tanning industry | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 4236 | Giorgia Imperato, Claudia Mazio, Francesco Urciuolo and Paolo Antonio Netti | An engineered breast cancer model on chip for personalized and multiple drug therapy | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 4293 | Vittoria Marini, Fabiola Marino, Flaminia Aliberti, Maurilio Sampaolesi and Yoke Chin Chai | RNA Sequencing analysis to study Duchenne dilated cardiomyopathy in patient-derived 3D organoid models | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 5246 | Valeria Panzetta, Crescenzo Frascogna, Claudia Mazio, Francesco Catuogno, Giorgia Imperato, Francesco Urciuolo and Paolo Antonio Netti | Mechanobiology of lung adenocarcinoma: a preliminary study | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 5312 | Cecilia Palma, Bianca Aterini, Carlotta Catozzi, Luigi Nezi, Silvia Lopa, Teresa Manzo, Marco Rasponi and Paola Occhetta | A microfluidic platform to unravel immune cells cross-talk in rheumatoid arthritis | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 5453 | Elisa Batoni, Gabriele Maria Fortunato, Andrea Guerra, Giovanni Vozzi and Carmelo De Maria | Valve-jet technology for robotic-based in situ bioprinting applications | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |

| | | | |
|------|---|---|---|
| 5641 | Martina Casarin, Martina Todesco, Chiara Giulia Fontanella, Alessandro Morlacco, Fabrizio Dal Moro and Andrea Bagno | Cryopreservation effects on biological tissues: histological and mechanical assessments | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 5658 | Ginevra Pegollo, Simone Micalizzi, Aurora De Acutis, Carmelo De Maria and Giovanni Vozzi | Design and fabrication of a novel bioreactor for the engineering of tendon/ligament-to-bone interfaces | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 6002 | Elena Lagreca, Raffaele Vecchione, Raffaele Crispino and Paolo Antonio Netti | Biological validation of thiolated food grade secondary oil in water nanoemulsions with enhanced mucus-adhesion properties in Intestine-on-a-chip model | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 6388 | Aurora De Acutis, Costanza Daddi, Francesco Biagini, Emanuele Russello, Marco Calvigioni, Emilia Ghelardi, Carmelo De Maria and Giovanni Vozzi | Design and fabrication of a micro-dialyser for the study of the gut microbiota-tissues cross-talk | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 6512 | Giovanni Paolo Stola, Elena Marcello, Camilla Paoletti, Letizia Nicoletti and Valeria Chiono | Natural polymer-based bioinks exploiting internal gelation mechanism for cardiac tissue engineering | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 6570 | Paolo Signorello, Ludovica Cacopardo, Nicole Guazzelli, Irene Nicolai, Federica Viti, Paolo Gandullia, Robert Heuckeroth and Arti Ahluwalia | Design and fabrication of an intestinal phantom to mimic intestinal tone and motility | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 6597 | Maria Antonia Cassa, Gianluca Ciardelli, Piergiorgio Gentile and Irene Carmagnola | Nanostructured coatings with bacteria-triggered antimicrobial response for medical devices | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 6739 | Elia Pederzani, Chiara Emma Campiglio, Marta Ripamonti, Maichael Esposito, Angela Rizzo, Alice Caldiroli, Stefania Adele Riboldi, Andrea Remuzzi, Gianfranco Beniamino Fiore and Monica Soncini | An advanced culture system to investigate electrospun graft biomechanisms for vascular tissue engineering | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |

| | | | |
|------|---|---|---|
| 6899 | Lorenzo Guidi, Elisabetta Rosellini, Giovanni Vozzi, Luigi Lazzeri, Maria Grazia Cascone, Carmelo De Maria, Gabriele Maria Fortunato and Anna Lapomarda | 3D printing of a nanomaterials-embedded gelatin/pectin hydrogel for the development of an in vitro drug testing platform | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 6968 | Giacomo Cretti, Marco Rasponi, Roberta Visone, Udo Kraushaar and Paola Occhetta | Optimization of advanced setups with integrated readouts for evaluation of cardiac toxicity in a heart on chip device | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 7017 | Leonardo Cassari, Annj Zamuner, Grazia Maria Lucia Messina, Martina Marsotto, Hao-Chen Chang, Trevor Coward, Chiara Battocchio, Giovanni Marletta, Lucy Di Silvio and Monica Dettin | Peptide anchoring methods for PEEK surfaces | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 7020 | Giovanni Protopapa, Nina Bono, Roberta Visone, Fabio D'Alessandro, Marco Rasponi and Gabriele Candiani | Design and validation of a microfluidic cartridge to prepare non-viral gene delivery complexes | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 7191 | Beatrice Masante, Giovanni Putame, Andrea Tancredi Lugas, Marta Tosini, Ilaria Roato, Federico Mussano, Mara Terzini, Alberto Audenino and Diana Massai | Biomimetic platform for investigating in vitro the cell biological response to mechanical stretching – periodontal ligament stem cell application | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 7541 | Elisa Batoni, Carmelo De Maria and Giovanni Vozzi | Evaluation of the optimal pore size for 3D printed bone scaffolds in a perfusion bioreactor | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 7545 | Gabriele Maria Fortunato, Michele Molisani, Giovanni Vozzi and Carmelo De Maria | Extrusion control strategy for robotic-based in situ bioprinting | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 7699 | Ivana Dragojlov, Simone Vesentini and Elisa Fasoli | Effects of different degumming methods on the quality of sericin samples | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 7794 | Annj Zamuner, Leonardo Cassari, Monica Dettin, Maria Teresa Conconi and Elisabetta Sieni | Engineering the tumor environment in vitro using peptide-enriched, hyaluronic acid-based hydrogels | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |

| | | | |
|------|--|--|---|
| 7863 | Nicole Guazzelli, Ludovica Cacopardo, Valentina Inghirami and Arti Ahluwalia | Multiscale computational models for predicting hydrogel viscoelastic properties | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 8423 | Andrea Alliaud, Monica Boffito, Rosella Laurano, Susanna Sartori and Gianluca Ciardelli | Engineering of poly(urethane)-based porous constructs for cardiac tissue model design | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 9016 | Matteo Pitton, Chiara Liguori and Silvia Farè | FRESH approach for the development of 3D channel network in 3D in vitro models | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 9273 | Ilaria Parodi, Silvia Scaglione, Marco Massimo Fato and Rodolfo Repetto | Mathematical model of nutrients transport and cell growth in a bioprinted hydrogel | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 9966 | Maria Testa, Francesco Lopresti, Olga Manna, Stefano Burgio, Giorgia Intilli, Alberto Fucarino and Vincenzo La Carrubba | Rapid prototyping of a microfluidic platform for nasal mucosa models | Track 4 - Biomaterials, Cell & Tissue Engineering, Biofabrication |
| 313 | Elena Mongiardini, Emma Colamarino, Floriana Pichiorri, Andrea Ranieri, Jlenia Toppi, Donatella Mattia and Febo Cincotti | Brain-Computer Interface assisted Motor Imagery training in post-stroke rehabilitation: longitudinal study of the EEG sensorimotor rhythms | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 534 | Pietro Benvenuti, Erika Rovini, Laura Fiorini and Filippo Cavallo | A multimodal wearable system for Human Activity Recognition during daily activities | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 637 | Serena Cerfoglio, Paolo Capodaglio, Paolo Rossi, Federica Verme, Gabriele Boldini, Viktoria Cvetkova, Manuela Galli and Veronica Cimolin | Effectiveness of a home-based tele-rehabilitation program for post-Covid patients: preliminary results | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 642 | Mattia Pesenti, Roberto Schinelli, Alberto Antonietti, Marta Gandolla and Alessandra Pedrocchi | Virtual prototyping of a robotic chess player for play therapy | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 757 | Simone Onorati, Federica Semproni, Linda Paternò, Giada Casagrande, Veronica Iacovacci and Arianna Menciacchi | A hydraulic implantable artificial detrusor for controlled bladder voiding | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |

| | | | |
|------|--|---|--|
| 1141 | Valerio Antonio Arcobelli, Kevin Marcaccini, Poula Hassaballah, Luca Tonin, Stefano Tortora and Silvia Orlandi | Brain signals in semi-immersive and immersive VR environments: a feasibility study | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 1250 | Gabriele Frediani and Federico Carpi | Wearable tactile display of softness for virtual reality | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 2077 | Cecilia De Vicariis, Laura Bandini, Vinil T. Chackochan and Vittorio Sanguineti | Computational joint action: dynamical models to understand the development of joint coordination | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 2124 | Angela Peloso, Rossella Damiano, Emiliano Votta and Elena De Momi | Fast path replanning in a dynamic environment in percutaneous cardiac interventions | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 2698 | Laura Santos, Martina Murgo, Bárbara Silva, Alice Geminiani, Arianna Caglio, Silvia Annunziata, Catarina Barata, José Santos-Victor and Alessandra Pedrocchi | An attention classifier for the evaluation of a robotic therapy in children with Autism Spectrum Disorder | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 2907 | Clemente Lauretti, Francesca Cordella, Ilenia Saltarelli and Loredana Zollo | A safe robot control for semi-autonomous pedicle tapping | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 3501 | Fulvio Missoni and Andrea Canessa | Evaluating Spatial Hearing in Virtual Reality Environment | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 3653 | Laura Bandini, Cecilia De Vicariis, Maria Cristina Novello, Carlo Chiorri and Vittorio Sanguineti | A cloud-based mobile platform to monitor and counteract cognitive decline | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 4195 | Elisa Miskey, Fabio Rizzoglio, Amy Bellitto, Antonino Massone, Davide Russo, Giorgio Carlini, Maura Casadio and Camilla Pierella | Non-linear dimensionality-reduction approach for powered wheelchair control | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 4902 | Ilaria Giuseppina Porco, Sergio Mauro Gavino Solinas, Aldo Lazich and Ugo Della Croce | A preliminary test of a novel method for the real time estimation of foot displacement using MIMUs attached to the foot | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |

| | | | |
|------|---|---|--|
| 4991 | Ludovico Ferreri, Enea Parimbelli, Irene Aprile and Silvana Quaglini | Understanding user needs for robotics assisted cognitive and physical rehabilitation | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 5148 | Simona Pascucci, Valerio Margani, Michela Franzò, Matteo Curcio, Alberto Polsinelli, Rita Talamonti, Maurizio Barbara, Franco Marinozzi and Fabiano Bini | Assessment of Balance disorder and vestibular dysfunction using Mixed Reality | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 7662 | Ke Fan, Giancarlo Ferrigno and Elena De Momi | A Safe Reinforcement Learning platform for Autonomous Robotic Tissue Approaching | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 9176 | Maria Cristina Bisi, Alice Masini, Stefania Toselli, Sofia Marini, Laura Bragonzoni, Andrea Cecilian, Marcello Lanari, Alessandra Sansavini, Alessia Tessari, Davide Gori, Laura Dallolio and Rita Stagni | Sensor-based Assessment of Gross and Fine Motor Development in Primary School Children | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 9329 | Carlo La Viola, Laura Fiorini, Gianmaria Mancioffi and Filippo Cavallo | Personality Traits Influence the Perception of a Robotic Arm endowed with Social Cues | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 9715 | Federica Ferrari, Davide Savona, Eleonora Guanziroli, Franco Molteni, Alessandra Pedrocchi and Emilia Ambrosini | A motor-assisted recumbent trike for cycling training in neurological patients | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 9824 | Diletta Balta, Ilaria Giuseppina Porco, Hsinhung Kuo, Jing Wang, Olga Morozova, Manon Schladen, Andrea Cereatti, Peter Lum and Ugo Della Croce | An improved method for the characterization of infants' general movements using a RGB-Depth sensor and a deep neural network tracking processing tool | Track 7 - Biorobotics, rehabilitation & Assistive Technologies |
| 790 | Camilla Gironi, Laura Cercenelli, Barbara Bortolani, Nicolas Emiliani, Lorenzo Tartarini and Emanuela Marcelli | Ex Vivo Animal Evaluation of IntraValvular Impedance Sensing Applied to Biological Heart Valve Prostheses | Track 8 - Design and Validation of Biomedical Devices |
| 877 | Andrea Cataldo, Raissa Schiavoni, Antonio Masciullo and Christian Demitri | Wearable sensor for in-vivo skin hydration monitoring | Track 8 - Design and Validation of Biomedical Devices |

| | | | |
|------|--|---|---|
| 1245 | Chiara Catalano, Stefano Cannata, Caterina Gandolfo and Salvatore Pasta | Establishing Computational Modeling Credibility in Patients Undergoing TAVI | Track 8 - Design and Validation of Biomedical Devices |
| 1872 | Omar Zahalka, Chiara Catalano, Tahir Turgut, Nils Gotzen, Stefano Cannata, Caterina Gandolfo and Salvatore Pasta | Mechanical Properties of Polyamide 12 for the use in Balloon-Expandable Transcatheter Heart Valves | Track 8 - Design and Validation of Biomedical Devices |
| 1905 | Gabriele Maria Fortunato, Francesca Tonelli, Alberto Greco, Nicola Carbonaro, Aldo Casani and Carmelo De Maria | Patient-specific phantom for home haemodialysis | Track 8 - Design and Validation of Biomedical Devices |
| 2412 | Francesca Berti, Linda Carpenedo, Camilla Boldrin and Luigi La Barbera | A response surface-based approach to predict spinal rod contouring parameters | Track 8 - Design and Validation of Biomedical Devices |
| 2747 | Sofia Sirolli, Leonardo Ricotti and Andrea Cafarelli | Highly controlled ultrasound-mediated drug delivery experiments: an in vitro set-up | Track 8 - Design and Validation of Biomedical Devices |
| 3877 | Cecilia Vivarelli, Rosaria Falsaperla, Giancarlo Burriesci, Federica Censi, Giovanni Calcagnini and Eugenio Mattei | Exposure set-up for assessing the far-field electromagnetic immunity levels of active implantable medical devices | Track 8 - Design and Validation of Biomedical Devices |
| 4853 | Lorenzo Zucchini, Milos Ajcevic and Agostino Accardo | Temperature influence on reflectance photometers for bilirubin measurement | Track 8 - Design and Validation of Biomedical Devices |
| 5763 | Mara Coduri, Andrea Calandrino, Giulia Addiego Mobilio, Elisa Grasso, Matteo Pescio, Paolo Rossi, Giorgio Carlini, Marco Chirico, Fabio Solari, Manuela Chessa, Maura Casadio and Serena Ricci | Combination of VR and manikins to improve medical training | Track 8 - Design and Validation of Biomedical Devices |
| 5884 | Noemi Giordano, Gabriella Balestra, Samanta Rosati and Marco Knaflitz | Usability of a multi-sensor array for the application of electro-phonocardiography in home care | Track 8 - Design and Validation of Biomedical Devices |
| 5942 | Cristina Oldani, Nina Bono, Alice Caldiroli, Stefania Adele Riboldi and Gabriele Candiani | Physiologically relevant in vitro experiments: degradation kinetics of a pool of enzymes | Track 8 - Design and Validation of Biomedical Devices |

| | | | |
|------|---|--|---|
| 6646 | Marta Baccarella and Salvatore Pasta | Multiscale Modelling of Platelet Activation in Membrane Oxygenation Systems | Track 8 - Design and Validation of Biomedical Devices |
| 6654 | Greta Bertola, Ludovica Cacopardo, Florinda Coro, Carmelo De Maria and Arti Ahluwalia | Engineering a smart intrauterine device based on pH-controlled copper release. | Track 8 - Design and Validation of Biomedical Devices |
| 6694 | Maria Isabella Maremonti, David Dannhauser, Paolo Antonio Netti and Filippo Causa | Circulating tumour cells deformability measurement in microfluidics | Track 8 - Design and Validation of Biomedical Devices |
| 6890 | Florinda Coro, Amedeo Franco Bonatti, Gabriele Maria Fortunato, Ilenia Gulino, Lucia Arcarisi, Maria Elena Lippi, Valentina Calderai, Gionatan Gallo, Maurizio Palmieri, Pietro Ducange, Cinzia Bernardeschi, Gabriele Tomei, Paolo De Simone, Arti Devi Ahluwalia and Carmelo De Maria | Open-source as an enabling approach for the introduction of artificial intelligence in healthcare | Track 8 - Design and Validation of Biomedical Devices |
| 6941 | Luca Ciriello, Alessandro Belluzzo, Andrea Grassi and Tomaso Villa | A method for the evaluation of cervical surgical instrumentation reliability through a computational and experimental approach | Track 8 - Design and Validation of Biomedical Devices |
| 7035 | David Dannhauser, Maria Isabella Maremonti, Paolo Antonio Netti and Filippo Causa | Microfluidic platform for cell classification from optical signatures via machine learning | Track 8 - Design and Validation of Biomedical Devices |
| 7435 | Marco Mercuri, Ilde Lorato, Tom Torfs and Felice Crupi | Remote In-Bed Monitoring of Vital Signs Using Radar Technology | Track 8 - Design and Validation of Biomedical Devices |
| 8045 | Carlotta Salvatori, Leonardo Ricotti and Lorenzo Vannozzi | A novel concept of steerable catheters actuated by muscle cells: the BioMeld project | Track 8 - Design and Validation of Biomedical Devices |
| 9963 | Ilaria Guidetti, Francesco De Gaetano, Diego Gallo, Umberto Morbiducci and Maria Laura Costantino | Development of a computational model to estimate the hemolysis risk associated with hemodialysis catheters | Track 8 - Design and Validation of Biomedical Devices |