

ESB-ITA 2024 (Pescara)

Thursday - 03 October 2024

Morning

8.00	Registration
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8.45	Meeting Opening Ceremony
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9.30-10.00	Keynote Lecture: Anna Pandolfi (20 min + 10 min questions) “Multiscale and statistical approaches to model the collagen microstructure of the human cornea”
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10.00-10.30	Coffee break + free poster exhibition
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Thematic session “Challenges in dental biomechanics: innovative and advanced approaches”

10.30-10.45	Lugas A.T., Schierano G., Bignardi C., Audenino A., Terzini M., “Novel experimental methods for the investigation of cemented dental prostheses retrievability”
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10.45-11.00	Santos M.S., Cabral J.M.S., Ferreira F.C., da Silva C.L., Carvalho M.S., Silva J.C., “Electrospun membranes with enhanced bioactivity for periodontal tissue engineering applications”
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11.00-11.15	Masante B., Putame G., Tosini M., Lugas A.T., Roato I., Gabetti S., Santos M.S., Silva J.C., Sanginario A., Terzini M., Mussano F., Audenino A.L., Massai D., “Unravelling the effects of controlled mechanical stimuli on periodontal ligament stem cells”
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11.15-11.30	Serino G., Giordano A., Scotti N., Audenino A., “A sight at the nanomechanical properties of 3D printable dental resins”
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11.30-11.45	Rota I., Oliva N., Sardella A., Gastaldi D., “Image-based patient specific workflow to design membranes for guided bone degeneration”
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11.45-12.00	Valente F. “Challenges in dental field and the contribution of biomechanics”
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12.00-14.00	Lunch + free poster exhibition + “Meet the Expert” event (13.00-14.00)
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Afternoon

General session 1	
14.00-14.15	Amicone A., Santschi M.X.T., Perez R.L., Weber P., Ferguson S.J., "Characterization of two distinct triphasic mew PCL design scaffolds emulating articular cartilage structure"
14.15-14.30	Luppino F., Zoboli L., Bianchi D., Nannei A., Lazzarotti L., Centola M., Gizzi A., "Computational modeling and optimization of a subcutaneous insulin injection port"
14.30-14.45	Guazzelli N., Cacopardo L., Paties Montagner G., Degli Esposti L., Catalucci D., Iafisco M., Cascone M.G., Ahluwalia A., "In silico-invitro design of biomimetic alveolar models for high-throughput inhalation tests"
14.45-15.00	Gabetti S., Daou F., Masante B., Israel S., Zenobi E., Scatena E., Rimondini L., Bignardi C., Cochis A., Massai D., "Direct perfusion and intermittent pressure bioreactor for mimicking and investigating the bone environment"
15.00-15.15	Pulcinelli M., Zoboli L., Bianchi D., Gizzi A., Schena E., Lo Presti D., "A 3D-printed tactile sensor for superficial soft tissue palpation"
15.15-15.30	Djoumessi R.T., Lenarda P., Gizzi A., Giusti S., Alduini P., Paggi M., "Modeling and simulation of the effect of laser tissue soldering in colon electromechanics"

15.30-16.00	Coffee break + free poster exhibition
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General session 2	
16.00-16.15	Garzia S., Rygiel P., Cademartiri F., Celi S., Wolterink J.M., "Neural fields for diffeomorphic estimation of aortic wall deformation in 4D flow MRI"
16.15-16.30	Astore M., Marino M., "Hybrid modelling of arterial mechanics: integrating multiscale with data-driven approaches"
16.30-16.45	Griffo B., Lodi Rizzini M., Candreva A., Collet C., Munhoz D., Biscaglia S., Chiastra C., Gallo D., Morbiducci U., "Deep learning-based coronary artery wall shear stress estimation from real-world patients"
16.45-17.00	Signorello P., Cacopardo L., Sarmiento B., Ahluwalia A., "Mucoadhesive magnetic nanoparticles for intestinal function restoration in childhood visceral myopathy"

17.00-17.15	De Campo G., Luraghi G., Eddington D.T., Dubini G.A., "Investigation of biomechanical stimuli in a microfluidic chip through in-silico models"
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Master Thesis Award Session	
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17.30-17.45	Martina Tierno "Impact of commercial coronary stent cell shape and strut thickness on the hemodynamic-related risk of in-stent restenosis: a computational study"
17.45-18.00	Irena Radisic "Fully coupled multiscale models of cardiac electromechanics"
18.00-18.15	Giordana Marsili "Integration of customized electrodes in bicompartmental microphysiological system for Trans Epithelial Electrical Resistance measurements"

20.00/20.30	Social Dinner
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Friday - 04 October 2024

Morning

8.00	Registration
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9.00-9.30	Keynote Lecture: Benedikt Helgason (20 min + 10 min questions)
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General session 3	
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9.30-9.45	Pasini M., Cavazzoni G., Le Maitre C.L., Cristofolini L., Dall'Ara E., Palanca M., "Intervertebral disc degeneration affects the strain distribution in human metastatic vertebrae"
9.45-10.00	Maioli V., Conconi M., Diquattro E., Traina F., Cristofolini L., Sancisi N., "The influence of the quadriceps muscle on the knee joint kinematics: an ex vivo study"
10.00-10.15	Pettenuzzo S., Berardo A., Belluzzi E., Pozzuoli A., Ruggieri P., Carniel E.L., Fontanella C.G., "Human plantar fascia: from experimental tests to constitutive analysis"
10.15-10.30	Piersanti R., Bucelli M., Regazzoni F., Pagani S., Dedè L. Quarteroni A., "The I-heart simulator: a comprehensive and biophysically detailed computational model of the cardiac function"

10.30-11.00	Coffee break + free poster exhibition
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General session 4	
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11.00-11.15	Corti A., Stefanati M., Leccardi M, De Filippo O., Depaoli A., Cerveri P., Migliavacca F., Corino V.D.A., Matas J.F., Mainardi L., Dubini G., "An integrated radiomica-biomechanics approach for coronary vulnerable plaques prediction"
11.15-11.30	Calò K., Guala A., Mazzi V., Lodi Rizzini M., Dux-Santoy L., Rodriguez-Palomares J., Scarsoglio S., Ridolfi L., Gallo D., Morbiducci U., "Linking large-scale flow coherence and ascending aorta pathophysiology using 4D flow MRI"
11.30-11.45	Costagliola E., Gandolfo C, Musumeci F., Pilato M., Pasta S., "Augmented reality of in-silico cardiac biomechanics"
11.45-12.00	Dell'Agnello F., Vignali E., Capellini K., Cademartiri F., Celi S., "A dynamic CT based approach for the characterization of the aortic kinematics and mechanical properties"
12.00-12.15	Mastrofini A., Marino M., Karlof E., Hedin U., Gasser T.C., "Atherosclerotic carotid vessels and residual strains: a framework for patient-specific stress analyses"
12.15-12.30	Lissoni V., Stefanati M., Migliavacca F., Dubini G., Matas J.F., Luraghi G., "Towards digital twins of coronary artery disease: FEA, CFD or FSI?"

12.30-13.30	Lunch + free poster exhibition
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Afternoon

13.30-14.00	Keynote Lecture: Gasser (20 min + 10 min questions)
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14.00-15.15	ESB-ITA Assembly (Master Thesis Award ceremony)
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15.15-15.30	Coffee break + free poster exhibition
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General session 5	
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15.30-15.45	De Nisco G., Tierno M., Lodi Rizzini M., Gallo D., Morbiducci U, Chiastra C., "Coronary stent design and hemodynamic-related risk of in-stent restenosis"
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15.45-16.00	Verdirame I., Fanni B.M., Buongiorno R., Dell’Agnello F., Berti S., Cademartiri F., Parodi G., Danielli F., Berti F., Pennati G., Petrini L., Celi S., “Study of left atrial appendage hemodynamics by integrating time-resolved CT and mesh morphing”
16.00-16.15	Mazzi V., Calò K., Gallo D., Steinman D.A., Morbiducci U., “Towards a unified theory of flow disturbances: the link between wall shear stress and vorticity topologies”
16.15-16.30	Mazzoli M., Gasparotti E., Gervasi A., Haxhiademi D., Celi S., “Effect of aortic morphology for ECMO investigation: a combined SSM and CFD study”
16.30-16.45	Lodi Rizzini M., Candreva A., Stahli B., Biscaglia S., Campo G., Chiastra C., Morbiducci U., Gallo D., “Hemodynamci characterization of coronary lesions in elderly patients with myocardial infarction”
16.45-17.00	Singh J., Gasparotti E., Vignali E., Mariotti A., Salvetti M.V., Celi S., “PIV analysis on a patient-specific 3D printed aorta phantom for hemodynamic flow investigation”
17.00-17.30	Awards ceremony (best oral, best poster, ERC Italy) + closure

Posters: on exhibit both days

Poster sessions: during all free exhibition moments