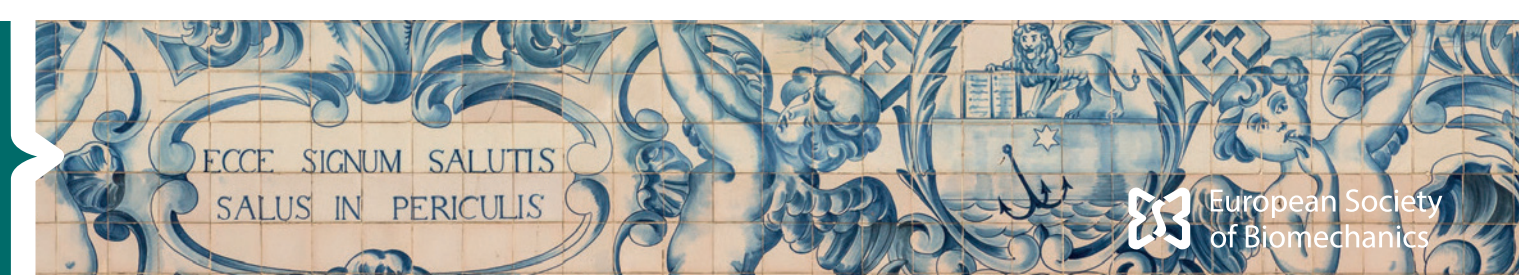
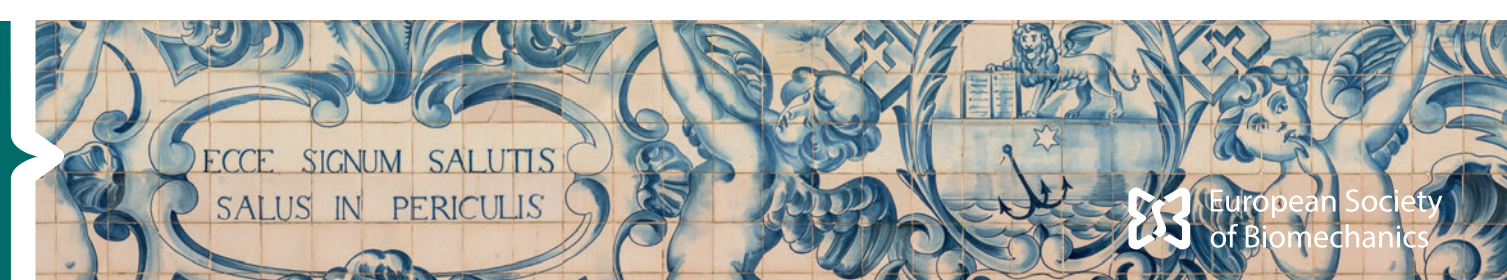


DETAILED PROGRAMME



	Tuesday, 28th June 2022							
	Infante Hall	María Hall	Luís Hall	Porto Hall	Arakida Hall	Hirayama Hall	S. Joan Hall	
7:30 – 8:15	Meet the PI – Student breakfast networking event (West Ground Floor)							
8:30 – 9:45	<p>TRO1.5 IMPLANTS / ORTHOTICS / PROSTHETICS / DEVICES V: TOTAL KNEE ARTHROPLASTY Chairs: <i>William R. Taylor, Corine Post</i></p> <p>8:30am – 8:42am IN VIVO CONTACT MECHANICS IN TOTAL KNEE ARTHROPLASTY IS GOVERNED BY THE IMPLANT CONFORMITY <i>S. H. Hosseini Nasab, B. Szazi, C. Smith, P. Schütz, B. Postolka, W. R. Taylor</i></p> <p>8:42am – 8:54am CRUCIATE RETAINING TOTAL KNEE ARTHROPLASTY SYSTEMS MAY BE UNSUCCESSFUL IN AVOIDING ANTERIOR FEMORAL SHEET DESPITE DIFFERENTIAL BERING GEOMETRY <i>P. Moewis, H. Hommel, A. Trepczynski, L. Krahl, G. Duda</i></p> <p>8:54am – 9:06am BIOMECHANICAL ANALYSIS OF FLEXIBLE FEMORAL CONES IN HINGED TOTAL KNEE ARTHROPLASTY <i>B. Innocenti</i></p> <p>9:06am – 9:18am DYNAMIC KNEE JOINT LINE ORIENTATION IS NOT A RELIABLE PREDICTOR OF CONTACT LOAD DYNAMICS IN VIVO <i>A. Trepczynski, P. Moewis, P. Damm, P. Schütz, J. Dymke, H. Hommel, W. R. Taylor, G. N. Duda</i></p> <p>9:18am – 9:30am UNDERSTANDING KNEE STABILITY AFTER TKA BY MEANS OF DYNAMIC WIDE-FIELD FLUOROSCOPY <i>L. Rao, H. Maier, R. Horn, W. R. Taylor, B. Postolka, S. Preiss, P. Schütz</i></p> <p>9:30am – 9:42am BIOMECHANICAL ANALYSIS OF DIFFERENT LEVEL OF CONSTRAINT IN TOTAL KNEE ARTHROPLASTY DURING DAILY ACTIVITIES <i>E. Bori, S. Pianigiani, L. Rapallo, L. Innocenti, B. Innocenti</i></p>	<p>TRO2.5 CARDIOVASCULAR BIOMECHANICS IV: COMPUTATIONAL METHODS Chairs: <i>Selda Sertolova, Stéphane Avril</i></p> <p>8:30am – 8:42am SEGMENTATION AND MECHANICAL CHARACTERIZATION OF ATHEROSCLEROTIC PLAQUES <i>A. T. Latorre Molins, M. A. Martínez Barco, M. Cilla Hernández, J. Olhayan, E. PeñaBoquezano</i></p> <p>8:42am – 8:54am ARTIFICIAL NEURAL NETWORK FOR PREDICTION OF MECHANICAL PROPERTIES OF ATHEROMA PLAQUE <i>R. Caballero Masa, M. A. Martínez Barco, E. Peña Boquezano</i></p> <p>8:54am – 9:06am ON THE CFD MODELLING OF HEMODYNAMICS IN UNRUPTURED INTRACRANIAL ANEURYSMS <i>P. Jekan Roca, A. Goetz, R. Nemer, P. Meliga, A. Larcher, J. Viquiera, A. Sánchez, Y. Ozpınar, T. Liebig, E. Hochtem</i></p> <p>9:06am – 9:18am PULSE WAVE VELOCITY AS A GUIDE TO REDUCE THE MATERIAL PARAMETERS IN CERAMIC COMPUTATIONAL BIOMECHANICS <i>L. Gheysen, L. Maes, H. Famaey, P. Segers</i></p> <p>9:18am – 9:30am FLUID STRUCTURE INTERACTION MODELING OF COMPLIANT AORTIC VALVES USING THE LATTICE BOLTZMANN CFD AND FEM METHODS <i>A. Marany, E. Lavon, R. Bardou, B. Korovic, A. Hamdan, D. Bluestein, R. Higaji</i></p> <p>9:30am – 9:42am COMPUTATIONAL MODELLING OF THE EFFECT OF INFARCT STIFFENING ON LOCAL MYOFIBER MECHANICS <i>K. L. P. M. Janssens, M. Kraemer, P. H. M. Boverdeerd</i></p>	<p>TRO3.5 PATIENT-SPECIFIC MODELLING II Chairs: <i>Claudio Vergara, Laura Lafuente Garcia</i></p> <p>8:30am – 8:42am TOWARDS A REPOSITORY OF PATIENT-SPECIFIC INTERVERTEBRAL DISCS FINITE ELEMENT MODELS <i>E. Muñoz-Maya, M. Rasouliqandamoni, C. Ruiz Wills, G. Piello, J. Noally</i></p> <p>8:42am – 8:54am LUMBAR INTERVERTEBRAL DISC 3D SEGMENTATION FOR BIOMECHANICAL SIMULATION <i>R. Matos, P. R. Fernandes, N. M. P. L. Mateia, A. P. G. Castro</i></p> <p>8:54am – 9:06am EFFECT OF INSTRUMENTATION INACCURACIES ON BIOMECHANICAL AND COMPUTATIONAL FAILURE RISKS OF FRACTURE FIXATIONS <i>D. Mühlner, L. Tensch, J. F. Schaefer, J. Dauwe, B. Geuegulyev, M. Windolf, P. Varga</i></p> <p>9:06am – 9:18am AUTOMATED PARALLEL BIOREACTOR PLATFORM COMBINING PERUSION AND PEMF STIMULATION <i>C. Heidsieck, L. Gajny, J.-Y. Lazenec, C. Traveret, W. Skalli</i></p> <p>9:18am – 9:30am PATIENT SPECIFIC GROWTH MODEL FOR CRANIOSYNOSTOSIS <i>M. Geoffrey, M. Abbad Andaloussi, P.-M. François, R. H. Khonsari</i></p> <p>9:30am – 9:42am FLUID SHEAR STRESS ANALYSIS TOWARDS THE OPTIMAL DESIGN IN TIPS OF SPIKE ENGINEERING SCAFFOLDS <i>T. Pires, A. P. G. Castro, P. R. Fernandes</i></p> <p>9:42am – 9:54am COMPOSITE METHACRYLOYL GELATIN-BASED HYDROGELS FOR BONE TISSUE ENGINEERING APPLICATIONS <i>G. Cardelli, R. Lauraro, R. Pappalardo, V. Chioma, M. Boffito</i></p>	<p>TRO4.5 TISSUE ENGINEERING I Chairs: <i>Gwendolen Reilly, Alberto Sensini</i></p> <p>8:30am – 8:42am TOWARDS A REPOSITORY OF PATIENT-SPECIFIC INTERVERTEBRAL DISCS FINITE ELEMENT MODELS <i>J. K. Grunbacher, A. de Leeuw, T. Minacci, P. J. Lim, M. Rieger, M. Rohrbach, C. Giurisica, R. Müller</i></p> <p>8:42am – 8:54am TOWARDS CONTROLLED FORMATION AND RESORPTION IN A 3D HUMAN IN VITRO BONE REMODELING MODEL. <i>B. de Wildt, L. Cuypers, K. Ito, S. Hofmann</i></p> <p>8:54am – 9:06am 3D ELECTROSPUN ARCADE-LIKE SCAFFOLDS FOR ARTICULAR CARTILAGE <i>A. Semelada, C. Sousa, A. F. Mendes, P. A. P. Marques, A. Completo</i></p> <p>9:06am – 9:18am VERTEBRAL STRENGTH PREDICTION FROM SINGLE ENERGY BIPLANAR RADIOGRAPHS <i>C. Heidsieck, L. Gajny, J.-Y. Lazenec, C. Traveret, W. Skalli</i></p> <p>9:18am – 9:30am PATIENT SPECIFIC GROWTH MODEL FOR CRANIOSYNOSTOSIS <i>M. Geoffrey, M. Abbad Andaloussi, P.-M. François, R. H. Khonsari</i></p> <p>9:30am – 9:42am FLUID SHEAR STRESS ANALYSIS TOWARDS THE OPTIMAL DESIGN IN TIPS OF SPIKE ENGINEERING SCAFFOLDS <i>T. Pires, A. P. G. Castro, P. R. Fernandes</i></p> <p>9:42am – 9:54am COMPOSITE METHACRYLOYL GELATIN-BASED HYDROGELS FOR BONE TISSUE ENGINEERING APPLICATIONS <i>G. Cardelli, R. Lauraro, R. Pappalardo, V. Chioma, M. Boffito</i></p>	<p>TRO5.5 SPINE BIOMECHANICS I Chairs: <i>Marco Palanca, John Costi</i></p> <p>8:30am – 8:42am IN VITRO TESTING OF HYDROGELS FOR THE IVD THERAPY USING A NOVEL ORGAN CULTURE APPROACH: CHONDROITINASE OR PAPAN? <i>J. U. Jansen, G. Q. Teixeira, A. Vernengo, S. Grad, K. Benz, C. Neidlinger-Wilke, H. J. Wilke</i></p> <p>8:42am – 8:54am USE OF DISPLACEMENTS FIELD TO VALIDATE SUBJECT-SPECIFIC FINITE ELEMENT MODELS OF SPINE SEGMENTS WITH METASTASIS <i>C. Garavelli, C. Carrelli, A. Aldieri, E. Psolli, M. Palanca, L. Cristofolini, M. Viceconti</i></p> <p>8:54am – 9:06am DESIGN AND CHARACTERISATION OF A NOVEL Ti-PVA/PAAM ARTIFICIAL INTERVERTEBRAL DISC <i>X. Du, T. Kalle, K. Schümperlin, S. J Ferguson</i></p> <p>9:06am – 9:18am DEVELOPMENT OF IMAGE-BASED MULTIPHASIC MODELS OF THE INTERVERTEBRAL DISC <i>L. Fleps, E. Morgan</i></p> <p>9:18am – 9:30am BIOMECHANICAL COMPARISON BETWEEN POLY AXIAL AND OAK SCREWS FOR THORACOLUMBAR FRACTURE REDUCTION <i>A. Y. Moutaf, F. Zot, A. Dulis, M. Severys, A. Germaine, Z. Vendevue</i></p> <p>9:30am – 9:42am THE INFLUENCE OF LOADING CONDITIONS ON THE PRINCIPAL AND NON-PRINCIPAL STIFFNESS OF CERVICAL DISC PROSTHESIS <i>H. Ansaariqan, S. J. Ferguson, M. Florin</i></p>	<p>TRO6.5 CLINICAL AND TRANSLATIONAL BIOMECHANICS / IN SILICO TRIALS I Chairs: <i>Richie Gill, Marco Viceconti</i></p> <p>8:30am – 8:42am A PARAMETRIC STUDY TO IMPROVE SURGICAL PLANNING OF SPRING-ASSISTED POSTERIOR VAULT EXPANSION <i>L. Delleghe, K. Ramdat Misier, G. James, J. Ong, D. Danavay, M. U. O. Jeelemi, S. Schievano, A. Borghi</i></p> <p>8:42am – 8:54am ASSESSING CREDIBILITY OF A MULTISCALE MODEL FOR JOINT REPLACEMENTS SOLUTIONS <i>C. Carrelli, S. Huebner, A. Di Pietra, G. Davico, M. Viceconti</i></p> <p>8:54am – 9:06am DESIGN AND CHARACTERISATION OF A NOVEL Ti-PVA/PAAM ARTIFICIAL INTERVERTEBRAL DISC <i>X. Du, T. Kalle, K. Schümperlin, S. J Ferguson</i></p> <p>9:06am – 9:18am RELIABILITY OF FLUOROSCOPIC ASSESSMENT OF GLENOHUMERAL TRANSLATION DURING A 30° SHOULDER ABDUCTION TEST <i>E. Croad, M. Künzler, S. Börlin, F. Ecker, C. Nüesch, D. Baumgartner, A. M. Müller, A. Münderrmann</i></p> <p>9:18am – 9:30am INVESTIGATION OF LIMITED CT SCAN COVERAGE IN BIOFIDELIC SIDEWAYS-FALL MODELS FOR CLINICAL COHORTS <i>A. Baker, I. Flaps, P. Guy, S. J. Ferguson, B. Helgason</i></p>	<p>TRO7.5 ARTIFICIAL INTELLIGENCE IN BIOMECHANICS + ROBOTS IN BIOMECHANICS Chair: <i>Massimo Sartori</i></p> <p>8:30am – 8:42am SIMULATION OF FLUID-STRUCTURE INTERACTION OF FLOW IN COLLAPSIBLE TUBES: A SIMPLIFIED MODEL FOR OBSTRUCTIVE SLEEP APNEA <i>C. Bruno-Rosso, S. Boussem</i></p> <p>8:42am – 8:54am SPHERICAL, TRANSPARENT AND STRETCHABLE MEMBRANES FOR REPLICATING THE ALVEOLAR INTERFACE IN-VITRO <i>L. Casapardo, N. Guazzelli, F. Signorillo, A. Alluvulla</i></p> <p>8:54am – 9:06am CONTROL SYSTEM OF A MUSCULAR CONTROLLED, EXPERIMENTAL GLENOHUMERAL SIMULATOR <i>J. Genzer, G. Raizer, M. Rahner, A. M. Müller, A. Münderrmann, D. Baumgartner</i></p> <p>9:06am – 9:18am INTERFACING NEUROMUSCULOSKELETAL MODELS WITH EXOSKELETONS FOR CONTROLLING NEURO-MUSCULO TENDON PARAMETERS IN VIVO <i>G. Durandau, H. van der Kooij, M. Sartori</i></p> <p>9:18am – 9:30am FORM AND FUNCTION IN THE TAIL FEATHERS OF CLIMBING BIRDS <i>M. Grandatosky, M. Young, N. Flaim, D. Deleon, B. Zou, B. Bas, L. Reader, E. Dickinson</i></p> <p>9:30am – 9:42am NEURAL NETWORK FINITE ELEMENT MODELING OF THE HEART MECHANICS <i>W. Zhang, M. S. Sacks</i></p>	<p>TRO8.5 RESPIRATORY BIOMECHANICS Chair: <i>Sam Bayat</i></p> <p>8:30am – 8:42am THE EFFECT OF PRONE AND SUPINE POSITION VENTILATION ON ALVEOLAR OVERDISTENSION AND COLLAPSE <i>S. Quicken, U. Strauch, E. van Engelen, M. van Mil, E. van de Vosse</i></p> <p>8:42am – 8:54am HOW LUNG LESIONS LOCALIZE IN ARDS MODIFIES RESPIRATORY BIOMECHANICS? A COMPUTATIONAL FRAMEWORK <i>C. Bruno-Rosso, S. Boussem</i></p> <p>8:54am – 9:06am SPHERICAL, TRANSPARENT AND STRETCHABLE MEMBRANES FOR REPLICATING THE ALVEOLAR INTERFACE IN-VITRO <i>L. Casapardo, N. Guazzelli, F. Signorillo, A. Alluvulla</i></p> <p>9:06am – 9:18am SIMULATION OF FLUID-STRUCTURE INTERACTION OF FLOW IN COLLAPSIBLE TUBES: A SIMPLIFIED MODEL FOR OBSTRUCTIVE SLEEP APNEA <i>B. Akbar, S. G. Johnsen, P. R. Lenan, B. Müller</i></p> <p>9:18am – 9:30am ASTHMA SEVERITY LEVELS MONITORING BASED ON EEG SIGNALS USING NOVEL CLASSIFICATION ALGORITHMS <i>A. Ratsnovsky, R. Habba, G. Singer, M. R. Kramer, S. Nattali</i></p>
09:45 – 10:15	Coffee break							
10:15 – 11:40	<p>TRO1.6 IMPLANTS / ORTHOTICS / PROSTHETICS / DEVICES VI: MULTIPLE TOPICS (TOTAL KNEE ARTHROPLASTY, FRACTURE REPAIR) Chair: <i>Bernardo Innocenti</i></p> <p>10:15am – 10:27am STANDARDIZED IN VIVO KNEE IMPLANT KINETICS AND KINEMATICS AND THEIR APPLICATION TO IMPLANT WEAR SIMULATION <i>M. J. Dreyer, A. Trepczynski, B. Weiss, W.R. Taylor, P. Damm, C. R. Smith</i></p> <p>10:27am – 10:39am COMPREHENSIVE BOUNDARY CONDITIONS FOR INVESTIGATING TOTAL KNEE REPLACEMENT WEAR DURING WALKING <i>M. Federv-Nafnia, M. Dreyer, H. Guo, S. H. Hosseini Nasab, C. R. Smith, W. R. Taylor</i></p> <p>10:39am – 10:51am A SIMULATION BASED APPROACH FOR KINEMATICS EVALUATION AND WORST-CASE DETERMINATION IN PRE-CLINICAL TESTING <i>A. Maas, A. L. Puentes Reyna, T. M. Grupp</i></p> <p>10:51am – 11:03am THE EFFECT OF INTERFERENCE FIT AND COEFFICIENT OF FRICTION ON THE INTERFACE GAPS OF A PEAK FEMORAL COMPONENT <i>C. Post, T. Bitter, A. Brisson, N. Vendonschot, D. Janssen</i></p> <p>11:03am – 11:15am SYSTEMATIC VALIDATION OF FINITE ELEMENT SIMULATIONS OF LOCKING PLATE FIXATIONS <i>D. Mischler, M. Knecht, P. Varga</i></p> <p>11:15am – 11:27am INFLUENCE OF CERCLAGE WIRE APPLICATION ON THE DYNAMIC BEHAVIOUR OF A FRACTURED IMPLANT-CYLINDER SYSTEM <i>M. Timmermans, G. Athanasoulis Makris, L. Van Bel, J. Verhoeven, L. C. Pastrau, K. Denis</i></p> <p>11:27am – 11:39am ANALYTICAL MODEL FOR THE MECHANICAL PERFORMANCE PREDICTION OF A BONE-PLATE IMPLANT <i>F. A. Bolagna, M. Terzini, A. L. Audenino</i></p>	<p>TRO2.6 CARDIOVASCULAR BIOMECHANICS V: THROMBI AND PLAQUES Chairs: <i>Selda Sertolova, Stéphane Avril</i></p> <p>10:15am – 10:40am CHALLENGES OF VALIDATING COMPUTATIONAL THROMBOSIS MODELS <i>K. B. Manning</i></p> <p>10:40am – 10:52am THE INFLUENCE OF PLAQUE STRUCTURAL STRESS AND WALL SHEAR STRESS ON HUMAN CORONARY PLAQUE PROGRESSION <i>A. Székely, E. Hartman, S. A. Kortland, A. F. van der Steen, J. Daemen, J. Wentzel, A. C. Klyhalla</i></p> <p>10:52am – 11:04am IMAGE-BASED SIMULATION OF FLOW IN A PLATELET AGGREGATE <i>Y. Rao, G. Zvonitzky, C. Terstege, A. Hoekstra</i></p> <p>11:04am – 11:16am ON THE INFLUENCE OF THROMBUS PERMEABILITY ON FLUID DYNAMICS IN THORACIC AORTIC ANEURYSM: IN SILICO MODELS <i>C. GUIVER-CURRIEN, D. DEPLANO</i></p> <p>11:16am – 11:28am THE EFFECT OF SIZE AND PROXIMITY OF MICRO-BEADS ON THE RUPTURE THRESHOLD OF ATHEROMA CAP LABORATORY MODELS <i>A. Corti, D. Khalil, S. Weinbaum, L. Cardoso</i></p> <p>11:28am – 11:40am WALL SHEAR STRESS TOPOLOGICAL SKELETON VARIABILITY PREDICTS PLAQUE GROWTH IN HUMAN CORONARY ARTERIES <i>G. De Nisco, E. Hartman, V. Mazzi, D. Gallo, C. Chiostro, J. Daemen, J. Wentzel, U. Morbiducci</i></p> <p>11:40am – 11:52am ANALYTICAL MODEL FOR THE MECHANICAL PERFORMANCE PREDICTION OF A BONE-PLATE IMPLANT <i>F. A. Bolagna, M. Terzini, A. L. Audenino</i></p>	<p>TRO3.6 HARD TISSUE BIOMECHANICS II: BONE TISSUE LEVEL Chairs: <i>Vee San Cheong, Gianluca Tozzi</i></p> <p>10:15am – 10:27am REPLICABILITY OF A FINITE ELEMENT MODEL TO QUANTIFY HUMAN FEMUR FAILURE LOAD <i>M. Gardoganov, A. Sas, F. Bernamici, C. Confavreux, J.-B. Piatot, G. H. van Lenthe, H. Follet, D. Mitter</i></p> <p>10:27am – 10:39am THE INFLUENCE OF FORAMINA ON FEMORAL NECK FRACTURES AND STRAINS PREDICTED WITH FINITE ELEMENT ANALYSIS <i>J. Kak, L. Grassi, H. Isaksson</i></p> <p>10:39am – 10:51am HIP FRACTURE RISK PREDICTION BASED ON STATISTICAL MODELS INFORMED BY DXA IMAGES <i>A. Aldieri, F. Pagano, P. Bhattacharya, M. Paggirosi, R. Eastell, C. Bignardi, A. L. Audenino, M. Terzini</i></p> <p>10:51am – 11:03am IDENTIFICATION OF STATISTICAL CRITICAL AREA TO DISCRIMINATE PROXIMAL FEMUR FRACTURE DUE TO LATERAL FALL <i>N. Morando, C. Ruiz Willis, J. Noally, S. Tassani</i></p> <p>11:03am – 11:15am AGE MODULATES BMD AND STRENGTH BUT NOT FORCE RELAXATION IN HUMAN FEMORA <i>F. Correa Marques, B. Schroeder, D. Vilmar, E. Wehrle, R. Müller</i></p> <p>11:15am – 11:27am LOWER LIMB COMPENSATION DURING SIT-TO-STAND-TO-SIT AFTER MULTI-LEVEL FUSION SURGERY IN ADULT SPINAL DEFORMITY <i>P. Severijns, T. Overberg, E. Beausage-Gauvreau, T. Ackermann, L. Moke, L. Schey</i></p>	<p>TRO4.6 BIOMEDICAL IMAGING I Chairs: <i>Dieter Pahr, Uwe Wolfram</i></p> <p>10:15am – 10:40am X-RAY BASED 3D HISTOLOGY OF BIOLOGICAL TISSUES <i>G. Kerkhofs</i></p> <p>10:40am – 10:52am THE OSTEOCYTE LACUNO-CANALICULAR NETWORK AT THE BONE-IMPLANT INTERPHASE IMAGED WITH FOCUSED ION BEAM – SCANNING ELECTRON MICROSCOPY <i>E. Taniguchi, S. Hata, Y. Hirayama, H. Akhimi-Lamami, E. Vennart, S. Le Gars</i></p> <p>10:52am – 11:04am LONGITUDINAL CHANGES IN THE SUBCHONDRAL BONE IN A MOUSE MODEL OF KNEE POST TRAUMATIC OSTEOARTHRITIS <i>S. Oliveira, Z. Chen, A. Rayson, B. Roberts, H. M. Ismail, I. Bellantunozzi, E. Dall'ara</i></p> <p>11:04am – 11:16am AN IN SILICO METHOD TO EVALUATE BONE REMODELING AFTER TOTAL HIP ARTHROPLASTY: A SIX YEARS LONGITUDINAL STUDY <i>V. Betti, H. Jansson Jr, L. Cristofolini, M. K. Gislason, P. Gargiulo</i></p> <p>11:16am – 11:28am A CORRELATIVE MULTIMODAL IMAGING APPROACH FOR MULTISCALE ANALYSIS OF BONE REGENERATION AND ADAPTATION IN HUMAN FEMORA <i>F. Correa Marques, B. Schroeder, D. Vilmar, E. Wehrle, R. Müller</i></p> <p>11:28am – 11:40am OSTEOARTHRITIC KNEES CAN BE QUANTIFIED WITH IN VIVO SCANERS <i>P. Antonacci, J. Dauwe, P. Varga, D. Ciric, D. Gehweiler, B. Geuegulyev, K. Mys</i></p>	<p>TRO5.6 SPINE BIOMECHANICS II Chair: <i>André P. G. Castro, John Costi</i></p> <p>10:15am – 10:40am MULTISCALE BIOMECHANICAL AND STRUCTURAL PROPERTIES OF LUMBAR INTERVERTEBRAL DISCS: MECHANISMS OF INJURY <i>J. J. Costi</i></p> <p>10:40am – 10:52am COMPARATIVE STUDY OF PEDICLE SCREW STABILIZATIONS FOR METASTASIS TREATMENT ON A BIOMECHANICAL LUMBAR CONSTRUCTION <i>S. Barrelli, G. Putanen, M. Terzini, A. Ferras, S. Morone, A. L. Audenino</i></p> <p>10:52am – 11:04am MICRO-FE MODELS CAN PREDICT THE DISPLACEMENT FIELD IN HUMAN VERTEBRAE WITH LYTIC AND BLASTIC METASTASES <i>M. Palanca, G. Cavazzoni, L. Cristofolini, E. Dall'ara</i></p> <p>11:04am – 11:16am HARDWARE DENSITY REDUCTION AVOIDS T3 PROXIMAL JUNCTION FAILURE IN ADULT SPINE SURGERY: FE SIMULATION <i>M. Rasouliqandamoni, A. del Arco, F. Pellisé, M. González Ballester, F. Galbusera, J. Noally</i></p> <p>11:16am – 11:28am EVALUATION OF METHODS FOR SCREW-VERTEBRA FIXATION USING FINITE ELEMENT MODELLING <i>S. Vallejo Pareja, C. Ruiz Willis, J. Ramirez</i></p> <p>11:28am – 11:40am LOWER LIMB COMPENSATION DURING SIT-TO-STAND-TO-SIT AFTER MULTI-LEVEL FUSION SURGERY IN ADULT SPINAL DEFORMITY <i>P. Severijns, T. Overberg, E. Beausage-Gauvreau, T. Ackermann, L. Moke, L. Schey</i></p>	<p>TRO6.6 CLINICAL AND TRANSLATIONAL BIOMECHANICS / IN SILICO TRIALS II Chairs: <i>Richie Gill, Marco Viceconti</i></p> <p>10:15am – 10:40am TRANSLATIONAL COMPUTATIONAL STUDIES TOWARD PREVENTING POST-TRAUMATIC OSTEOARTHRITIS AFTER JOINT INJURY <i>R. Korthanen, D. D Anderson</i></p> <p>10:40am – 11:05am COMMUNITY CHALLENGE TOWARDS CONSENSUS ON CHARACTERIZATION OF BIOLOGICAL TISSUE <i>N. Farnay</i></p> <p>11:05am – 11:17am USE OF ASME VIB-19-2018 STANDARD AS METHODOLOGICAL FRAMEWORK FOR THE QUALIFICATION OF DIGITAL TWINS <i>A. Aldieri, C. Carrelli, A. A. La Mattina, M. Viceconti</i></p> <p>11:17am – 11:29am THE USE OF MOBILE EYE TRACKING TO ASSESS COGNITIVE LOAD IN LOWER LIMB AMPUTEES: A PILOT STUDY <i>S. Manz, S. Dosen, J. González-Vargas</i></p>	<p>TRO7.6 ARTIFICIAL INTELLIGENCE IN BIOMECHANICS II Chairs: <i>Konstantinos Moustakas, Idit Avrahami</i></p> <p>10:15am – 10:40am A NON INTRUSIVE DATA-REDUCED ORDER MODEL FRAMEWORK FOR CARDIOVASCULAR PROBLEMS <i>M. Garofalo, F. Siena, M. Demo, M. Conti, G. Razzo, F. Auricchio</i></p> <p>10:40am – 10:52am COMPUTATIONAL INVESTIGATION AND VERIFICATION OF THE IN-VITRO PERFORMANCE OF BIORESORBABLE BRAIDED STENTS <i>A. Luchetti, T. Gies, T. J. Vaughan</i></p> <p>10:52am – 11:04am SUPER-RESOLUTION OF CLINICAL CT DATA: TOWARDS IMPROVING THE STRENGTH OF FRACTURE RISK ASSESSMENTS <i>L. Frazer, J. Vashnag, N. Louis, D. Nicolola</i></p> <p>11:04am – 11:16am TEMPORALLY OPTIMIZED INVERSE KINEMATICS FOR GOOD HUMAN POSE ESTIMATION <i>G. Gildea, C. Mercadal-Baudart, R. Blythman, C. Simms</i></p> <p>11:16am – 11:28am CORRECTION OF MOTION ARTEFACTS IN HR-pQCT USING CYCLE GRASPING SIMULATED NETWORKS <i>P. Y. Steiner, M. Walle, M. Rigotti, D. E. Whitte, C. McLenan, P. R. Atkins, R. Müller, C. J. Collins</i></p>	<p>TRO8.6 ADVANCE COMPUTING FOR BIOMECHANICS I 10:15am – 10:27am A NON INTRUSIVE DATA-REDUCED ORDER MODEL FRAMEWORK FOR CARDIOVASCULAR PROBLEMS <i>M. Garofalo, F. Siena, M. Demo, M. Conti, G. Razzo, F. Auricchio</i></p> <p>10:27am – 10:39am COMPUTATIONAL INVESTIGATION AND VERIFICATION OF THE IN-VITRO PERFORMANCE OF BIORESORBABLE BRAIDED STENTS <i>A. Luchetti, T. Gies, T. J. Vaughan</i></p> <p>10:39am – 10:51am DEVELOPING A FRAMEWORK FOR GENERATING MITRAL VALVE SCALABLE MODELS <i>D. M. Cruz de Oliveira, D. Espino, L. Deorsola, J. Mynard, V. Rajagopal, K. Bachan, D. Dawson, D. Shepherd</i></p> <p>10:51am – 11:03am MODELLING THE BIOMECHANICAL BEHAVIOR OF THE LIVER IN REAL TIME USING ML MODELS TRAINED ON FE SIMULATIONS <i>O. Pellicer-Valero, M. J. Rupérez, J. D. Martín-Guerrero</i></p> <p>11:03am – 11:15am ASSESSING PROSTHETIC HAND DESIGNS THROUGH A NEW GRASPING SIMULATION BENCHMARK <i>J. Llop-Harillo, J. I. Ibeite, A. Pérez-González</i></p> <p>11:15am – 11:27am PARAMETRIZED SETTING AND GENERATION ALGORITHM FOR ABDOMINAL AORTIC ANEURYSM SIMULATION <i>L. Saccano, G. Ravon, R. Bernard, A. Jollo</i></p> <p>11:27am – 11:39am CFD MODELLING OF THE AIRFLOW IN THE HUMAN NASAL CAVITY <i>S. G. Johnson</i></p>
11:45 – 12:30	Keynote lecture 2: META-BIOMATERIALS , <i>Amir Zadpoor</i> ; Chairs: <i>David Mitton, Renato Natal Jorge</i>							
12:30 – 13:15	Lunch break							
13:15 – 14:00	Poster sessions: P57 – P512							
14:00 – 15:30	<p>TRO1.7 BIOMECHANICS OF MOVEMENT AND POSTURE: UPPER LIMB AND TRUNK FUNCTION AND POSTURE Chairs: <i>Lennart Schey, William R. Taylor</i></p> <p>2:00pm – 2:25pm QUANTITATIVE FUNCTIONAL ASSESSMENT IN THE SETTING OF ADULT SPINAL DEFORMITY USING 3D MOVEMENT ANALYSIS <i>A. Assi, V. Lafage, W. Skalli</i></p> <p>2:25pm – 2:37pm A NOVEL METHOD TO QUANTIFY PSEUDO-KINEMATICS OF THE RIB CAGE OVER THE VITAL CAPACITY RANGE <i>C. Vergara, W. Skalli, C. Clavel, M. Demayncq, R. Valentin, B. Sandaz, T. Similowski, Y. Attali</i></p> <p>2:37pm – 2:49pm A SLOUCHED OR ERRECT SPINAL POSTURE MODIFIES UPPER LIMB KINEMATICS <i>A. Tomazzoli, A. Naaim, B. Fréchéze, S. Duprey</i></p> <p>2:49pm – 3:01pm IMPACT OF THE TIME SCALE OF MUSCLE ACTIVATION DYNAMICS ON REACHING PERFORMANCE <i>T. Murtolo, C. Richards</i></p> <p>3:01pm – 3:13pm UPPER LIMB FUNCTIONAL EVALUATION OF A COMPLEMENTARY THERAPY IN PARKINSON'S DISEASE: A PRELIMINARY STUDY <i>E. Pegolo, M. Romanota, C. Ricca, A. Cucca, F. Spoliar, D. Volpe, Z. Sawacha</i></p>	<p>TRO2.7 CARDIOVASCULAR BIOMECHANICS VI: TREATMENT DESIGN AND CLINICAL OUTCOME Chairs: <i>Selda Sertolova, Stéphane Avril</i></p> <p>2:00pm – 2:12pm VASCULAR ADAPTATION FOLLOWING ENDOVASCULAR AORTIC ANEURYSM REPAIR <i>S. Zhang, J. Laurie, J. Mousavi, S. Avril</i></p> <p>2:12pm – 2:24pm FINITE ELEMENT STUDY ON THE PROXIMAL FIXATION OF A STENT-GRAFT: IMPACT OF THE AORTIC ARCH ANGULATION <i>A. Ramello, J. Iannetti, J. F. RodriguezMata, F. Migliavacca, G. Luraghi, T. Similowski, Y. Attali</i></p> <p>2:24pm – 2:36pm INTEGRATING IN-SILICO AND EX-VIVO ANALYSIS FOR BIOMECHANICAL ASSESSMENT OF AORTIC ENDOGRAFTING <i>M. Conti, D. Bianchi, M. Dominini, D. Bissacco, S. Trimarchi, F. Auricchio</i></p> <p>2:36pm – 2:48pm IN VITRO INVESTIGATION OF THE IMPACT OF ANEURYSMAL SAC ASPECT RATIO AND NECK SIZE ON HEMODYNAMICS OF CEREBRAL ANEURYSMS TREATED WITH FLOW DIVERTING STENTS <i>F. Chassagne, M. C. Barbour, M. R. Levitt, A. Aliseda</i></p> <p>2:48pm – 3:00pm PREDICTING 1-YEAR IN-STENT RESTENOSIS IN FEMORAL ARTERIES THROUGH MULTISCALE COMPUTATIONAL MODELING <i>A. Corti, M. Colombo, M. Rozovsky, S. Cesarini, Y. He, F. Migliavacca, J. Rodriguez Matos, S. A. Berncci, C. Chiostro</i></p> <p>3:00pm – 3:12pm A SMART PARTICLE IMAGE VELOCIMETRY SYSTEM FOR THE IN VITRO ASSESSMENT OF CORONARY ARTERY HEMODYNAMICS <i>E. Torta, G. C. A. Caridi, C. Chiostro, D. Gallo, U. Morbiducci</i></p> <p>3:12pm – 3:24pm A HIGH-POWER LED ILLUMINATED PIV SETUP TO CHARACTERIZE THE FLOW BEHAVIOR IN ABDOMINAL AORTIC ANEURYSM MODELS <i>F. Bardi, E. Gasparotti, E. Vignali, M. Aguirre, S. Avri, S. Celli</i></p>	<p>TRO3.7 HARD TISSUE BIOMECHANICS III: BONE ORGAN LEVEL Chairs: <i>Helenne Follet, Marta Peña Fernandez</i></p> <p>2:00pm – 2:12pm VALIDATION OF LINEAR AND MATERIALLY NONLINEAR MFE PREDICTED DISPLACEMENT FIELDS OF BONE BIOPSIES USING DXA <i>P. Stefanek, A. Symek, E. Dall'ara, D. H. Pahr</i></p> <p>2:12pm – 2:24pm FULL-FIELD STRAIN EVALUATION OF BONE TISSUE SUBJECTED TO MICROINDENTATION USING SPHERICAL AND BEROVNIK INDENTERS <i>M. Peña Fernandez, J. Schwiedrick, A. Bütki, F. Peyrin, J. Michler, S. Mattielli</i></p> <p>2:24pm – 2:36pm AUTOMATIC MUSCLE SEGMENTATION WITH DEFORMABLE IMAGE REGISTRATION FROM MR IMAGES OF HUMAN LOWER LIMB <i>W. H. Henson, C. Mazza, E. Dall'ara</i></p> <p>2:36pm – 3:01pm A NON RIGID REGISTRATION ALGORITHM TO BUILD STATISTICAL SHAPE MODEL OF THORACIC AORTA, TOGETHER WITH AORTIC ARCH AND SUPRACORTAL VESSELS <i>M. A. Supra Alpini, M. Mazzoli, F. Bardi, K. Capellini, V. Pistonato, S. Celli</i></p> <p>3:01pm – 3:13pm GENERATING 3D PERSONALISED RESPIRATORY DOMAINS FOR DEPOSITION MODELS FROM CT AND CHEST X-RAYS <i>J. Williams, H. Akhavi, A. Cunningham, A. Kirby, S. Cunningham, A. Ozel, U. Wolfram</i></p> <p>3:13pm – 3:25pm IN-VIVO 3D MUSCLE MORPHOLOGICAL MEASUREMENT BASED ON FREEHAND ULTRASOUND AND DIFFUSION TENSOR IMAGING <i>Z. Wang, F. Cenni, A. Diestra, S. Peterson, R. Wang</i></p>	<p>TRO4.7 BIOMEDICAL IMAGING II Chairs: <i>Dieter Pahr, Inas H Faris</i></p> <p>2:00pm – 2:25pm VISCOITY AND NONLINEAR ELASTOGRAPHY WILL BECOME THE NEXT GENERATION BIOMARKERS IN CLINICAL DIAGNOSIS <i>G. Rux, L. H. Faris</i></p> <p>2:25pm – 2:37pm AUTOMATION OF MRI-BASED SPINAL MUSCLE SEGMENTATION <i>D. Peeters, T. Overberg, D. Farotta, E. Beausage-gauvreau, L. Schey</i></p> <p>2:37pm – 2:50pm AUTOMATIC MUSCLE SEGMENTATION WITH DEFORMABLE IMAGE REGISTRATION FROM MR IMAGES OF HUMAN LOWER LIMB <i>W. H. Henson, C. Mazza, E. Dall'ara</i></p> <p>2:49pm – 3:01pm A NON RIGID REGISTRATION ALGORITHM TO BUILD STATISTICAL SHAPE MODEL OF THORACIC AORTA, TOGETHER WITH AORTIC ARCH AND SUPRACORTAL VESSELS <i>M. A. Supra Alpini, M. Mazzoli, F. Bardi, K. Capellini, V. Pistonato, S. Celli</i></p> <p>3:01pm – 3:13pm GENERATING 3D PERSONALISED RESPIRATORY DOMAINS FOR DEPOSITION MODELS FROM CT AND CHEST X-RAYS <i>J. Williams, H. Akhavi, A. Cunningham, A. 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Davico, M. Palanca, L. Cristofolini, M. Viceconti</i></p> <p>2:49pm – 3:01pm THE EFFECT OF INTERVERTEBRAL DISC COGENERATION ON THE FLEXIBILITY OF THE THORACIC SPINE: AN IN VITRO STUDY <i>C.</i></p>			

DETAILED PROGRAMME



Wednesday, 29th June 2022

	Archive Hall	Infante Hall	D. Maria Hall	D. Luis Hall	Porto Hall	Arrabida Hall	Miragaia Hall	S. Joao Hall
8:30 - 9:45	<p>TR01.9</p> <p>PATIENT-SPECIFIC MODELING IV Chair: Claudio Viegari</p> <p>8:30am - 8:42am CT-BASED FEA AND COMPUTATIONAL FLUID DYNAMICS APPLIED TO SCAFFOLD-BASED RECONSTRUCTION OF A SHEEP MANDIBLE <i>B. M. Ferguson, W. Lewin, H. Zeigaj, J. Clark, Q. Li</i></p> <p>8:42am - 8:54am ULTRASOUND-BASED FSI MODELING OF AORTIC ANEURYSMS: IMPACT OF THE AORTIC BIFURCATION AND INLET VELOCITY PROFILE <i>J. Fankem, E. van Engelen, E. Maas, A. Nieuweveld, M. van Sambeek, F. van de Vosse, R. Lapota</i></p> <p>8:54am - 9:06am VALIDATION OF AN IMAGE-BASED APPROACH FOR PATIENT-SPECIFIC ARTERIAL MODELLING IN CORONARY STENTING SIMULATIONS <i>G. Poletti, L. Antonini, P. Tsoumpou, G. S. Karanasiou, D. I. Fotiadis, L. Perrini, G. Pennati</i></p> <p>9:06am - 9:18am EVALUATING THE EFFECT OF COMPUTATIONAL DOMAIN REDUCTION IN ASCENDING AORTA SIMULATIONS <i>A. Martinez, L. Geranzi, M. Daniel, P. Escrig, J. Tamasi, M. Rochette, M. E. Biancolini</i></p> <p>9:18am - 9:30am PATIENT-SPECIFIC PRE- AND POST-SURGICAL STOMACH MODELS <i>I. Toniolo, A. Berardo, S. Perrella, G. Quera, C. Fianella, E. L. Carmel</i></p> <p>9:30am - 9:42am ON THE USE OF DIGITAL TWIN TECHNOLOGY ARIELLE FOR THE DEVELOPMENT OF PERINATAL LIFE SUPPORT SYSTEMS <i>B. G. van Willigen, M. B. van der Hout-vander Jagt, W. Huberts, F. N. van de Vosse</i></p>	<p>TR02.9</p> <p>MUSCULOSKELETAL BIOMECHANICS III: HIP, TRUNK, FOOT Chairs: Ivo Jonkers, Erica Beauceau-Gauvreau</p> <p>8:30am - 8:42am HIP CONTACT FORCES IN PATIENTS WITH INCREASED FEMORAL ANTEROSION DO NOT DIFFER WITH DIFFERENT GAIT PATTERNS <i>M. Alexander, E. Vriethweg, J. Cip, R. G. Brunner, E. De Piere</i></p> <p>8:42am - 8:54am DIFFERENCES IN IMPINGEMENT PATTERNS IN CAM-TYPE HIP WITH SUPERIOR AND ANTERIOR ASPHERICITY OF THE FEMUR <i>A. C. Jones, T. D. Stewart, N. Mahes, C. Holton</i></p> <p>8:54am - 9:06am COMPARATIVE EFFECTS OF SURGICAL AND NON-SURGICAL THERAPY ON HIP CONTACT FORCE FOR FEMOROACETABULAR IMPINGEMENT SYNDROME <i>A. Massari, L. Diamond, T. Savage, I. Grant, M. Hall, K. Bennell, J. Eyles, L. Spiers, D. Hunter, D. Lloyd, D. Saxby</i></p> <p>9:06am - 9:18am SYNERGY-BASED MULTIBODY KINEMATICS OPTIMIZATION TO TRACK ALL THE FOOT BONES WITH A STANDARD GAIT PROTOCOL <i>A. Pompili, M. Concani, N. Santuci, A. Leardini, S. Durante, C. Belvedere</i></p> <p>9:18am - 9:30am REFINING THE OFFBOARD FOOT MODEL TO DESCRIBE THE KINEMATICS OF THE MEDIAL LONGITUDINAL ARCH <i>J. Uhan, A. Kothari, A. Zavrsky, J. Stebbins</i></p> <p>9:30am - 9:42am VALIDATION OF AN ELECTROMYOGRAPHY-DRIVEN MUSCULOSKELETAL MODEL FOR TRUNK MECHANICAL ANALYSIS <i>A. Moya-Esteban, H. van der Kooij, M. Sartori</i></p>	<p>TR03.9</p> <p>IMPLANTS / ORTHOTICS / PROSTHETICS / DEVICES VII: BONE RESPONSE Chairs: Peter Zioupos, Federica Andrea Bologna</p> <p>8:30am - 8:42am A COUPLED FINITE ELEMENT AND SYSTEMS BIOLOGY MODEL TO STUDY THE ROLE OF MECHANICS AND INFLAMMATION IN KNEE OA <i>S. Mukherjee, R. Lesage, L. Geris</i></p> <p>8:42am - 8:54am IDENTIFICATION OF THE MOST IMPORTANT CELLULAR PROCESSES BEHIND IMPAIRED BONE REGENERATION IN TYPE-2 DIABETES <i>M. Jabre, G. Dudz, S. Checa</i></p> <p>8:54am - 9:06am EMERGENCE OF BONE REMODELLING BEHAVIOUR FROM A MICRO-MULTIPHYSICS AGENT-BASED MODEL <i>J. J. Kendall, D. Bazzetti, C. Ledoux, F. C. Marques, E. Wehrle, R. Müller</i></p> <p>9:06am - 9:18am BIOMECHANICAL MODEL OF BONE REMODELING COUPLED WITH ADVANCED DISCRETIZATION METHODS <i>M. Peyroteo, E. Behling, R. Natal</i></p> <p>9:18am - 9:30am THE INFLUENCE OF WNT PATHWAY IN BONE REMODELING AND CALCIUM CONCENTRATION IN MICROGRAVITY CONDITIONS <i>A. Pica, A. Marinazzi, F. Marinazzi, F. Bini</i></p> <p>9:30am - 9:42am THE INFLUENCE OF SCREW CONFIGURATIONS ON LCP UNDER THE TIME-DEPENDENT CALLUS HEALING PROCESS <i>S. Verbruggen, C. Schurman, T. Alliston</i></p>	<p>TR04.9</p> <p>MECHANOBIOLOGY III: IN SILICO Chair: Hans Van Oosterwyck</p> <p>8:30am - 8:42am A COUPLED FINITE ELEMENT AND SYSTEMS BIOLOGY MODEL TO STUDY THE ROLE OF MECHANICS AND INFLAMMATION IN KNEE OA <i>S. Mukherjee, R. Lesage, L. Geris</i></p> <p>8:42am - 8:54am IDENTIFICATION OF THE MOST IMPORTANT CELLULAR PROCESSES BEHIND IMPAIRED BONE REGENERATION IN TYPE-2 DIABETES <i>M. Jabre, G. Dudz, S. Checa</i></p> <p>8:54am - 9:06am EMERGENCE OF BONE REMODELLING BEHAVIOUR FROM A MICRO-MULTIPHYSICS AGENT-BASED MODEL <i>J. J. Kendall, D. Bazzetti, C. Ledoux, F. C. Marques, E. Wehrle, R. Müller</i></p> <p>9:06am - 9:18am BIOMECHANICAL MODEL OF BONE REMODELING COUPLED WITH ADVANCED DISCRETIZATION METHODS <i>M. Peyroteo, E. Behling, R. 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Singh</i></p> <p>9:06am - 9:18am HIGHER JOINT LOADING DUE TO INCREASED JOINT ANGLES IN PROFESSIONAL COMPARED TO NOVICE LATIN DANCERS <i>C. Egner, B. Schmiedmayer, H. Kainz</i></p> <p>9:18am - 9:30am A POSTURAL STRATEGY AT STRING RELEASE IN ELITE ARCHERS <i>A. Kuch, R. Tisserand, F. Durand, T. Monnet</i></p> <p>9:30am - 9:42am THE RELIABILITY OF A NOVEL 3D MOTION CAPTURE PROTOCOL FOR THE ANALYSIS OF INSTEP SOCCER KICK KINEMATICS <i>D. Al Otqi, L. Scheys</i></p>	<p>TR06.9</p> <p>IMPACT / INJURY BIOMECHANICS I Chairs: David Milton, Ciaran Simms</p> <p>8:30am - 8:55am DIGITAL TWINS AND COUPLED APPROACHES FOR MANAGEMENT OF TIBIAL PLATEAU FRACTURE <i>A. Germaneau</i></p> <p>8:55am - 9:07am A MULTIMODAL FRAMEWORK FOR EVALUATING THE EFFICACY OF ORTHOPEDIC IMPLANTS IN A SIDEWAYS FALL IMPACT <i>E. Bilen, A. Jung, J. Fleps, A. Baker, B. Helgason, P. Gay, P. Crichton</i></p> <p>9:07am - 9:19am MECHANICAL CHARACTERIZATION OF A KNEE COMPRESSION FRACTURE BY H-DVC ON A CLINICAL CT-SCAN <i>M. Severins, T. Vandeuvre, K. Aubert, V. Valle, A. Germaneau</i></p> <p>9:19am - 9:31am EXPERIMENTAL STUDY OF CERVICAL SPINE INJURY AND KINEMATICS IN LATERAL HEAD IMPACT <i>M.-H. Beaussejour, N. Bailly, W. Wei, L. Troude, P. Panichelli, P.-J. Arnaud</i></p> <p>9:31am - 9:43am CHANGE OF DIRECTION BIOMECHANICS AND COORDINATION IN ANTERIOR CRUCIATE LIGAMENT-INJURED FEMALE FOOTBALLERS <i>S. Di Paolo, L. Braganzani, A. Grassi, S. Zaffagnini</i></p>	<p>TR07.9</p> <p>SKIN BIOMECHANICS Chair: Jérôme Molimard, Michael Crichton</p> <p>8:30am - 8:55am SKIN - AN ACCESSIBLE WINDOW TO HEALTH <i>M. Crichton</i></p> <p>8:55am - 9:07am CHARACTERISING THE MECHANICAL PROPERTIES OF SKIN WOUNDS <i>S. Medina-Lombardero, J. Cash, B. Reuben, M. Crichton</i></p> <p>9:07am - 9:19am COMBINED MEASUREMENT OF FRICTION AND THROUGH-THICKNESS DEFORMATION ON EX VIVO SKIN SAMPLES <i>B. Eydan, B. Pierrat, N. Curt, H. Zahouani, J. Molimard</i></p> <p>9:19am - 9:31am TENSILE TESTING OF CELL SHEETS: AN EXPERIMENTAL APPROACH <i>M. G. Fernandes, M. D. Mallo, A. André, P. Martins, A. P. Marques</i></p>	<p>TR08.9</p> <p>INSPIRATIONAL KEY NOTE LECTURE - HOW TO COMMUNICATE SCIENCE Lecturer: Joana Lobo Antunes, Chair: Maria Campos Ferreira</p>
09:45 - 10:15	Coffee break							
10:15 - 11:40	<p>TR01.10</p> <p>CARDIOVASCULAR BIOMECHANICS VIII: MULTISCALE COMPUTATIONAL MODELING Chairs: Fanette Chassagne, Diego Gallo</p> <p>10:15am - 10:40am OPPORTUNITIES IN MULTISCALE AND MULTIPHYSICS HUMAN HEART MODELING <i>M. Pezzinck</i></p> <p>10:40am - 10:52am ON THE INFLUENCE OF THE ORTHOTROPIC TISSUE IN A ELECTROMECHANICAL HEART MODEL <i>D. Holz, D. Martonova, E. Schaller, M. T. Duong, M. Alkassar, S. Leyendecker</i></p> <p>10:52am - 11:04am USING THE DIGITAL TWIN OF HUMAN FETAL HEART TO PREDICT OUTCOMES OF A FETAL HEART INTERVENTION <i>L. E. Green, W. A. Chan, A. Tulez, G. Tulez, C. H. Yap</i></p> <p>11:04am - 11:16am COMPUTATIONAL STUDY ON TWO IDEALIZED MODELS OF THE LEFT VENTRICLE WITH DIFFERENT MYOFIBER ARCHITECTURES <i>K. Osouli, F. De Gaetano, P. Zunino, M. L. Costantino</i></p> <p>11:16am - 11:28am IMPACT OF HYPERTENSION AND ARCH MORPHOLOGY ON AORTIC HEMODYNAMICS: A PRELIMINARY NUMERICAL ANALYSIS <i>M. A. D'Almeida, A. Gami, M. Marrocco-Trischitta, F. Starla, A. Reddelli</i></p>	<p>TR02.10</p> <p>MUSCULOSKELETAL BIOMECHANICS IV: METHODS Chairs: Claudia Inzana, Simon Herger</p> <p>10:15am - 10:40am BIOMECHANICS OF CRANIOFACIAL GROWTH <i>M. Moazen</i></p> <p>10:40am - 10:52am TENDON COMPLIANCE AFFECTS TIME-SERIES ENERGY EXPENDITURE <i>A. I. Luis Pena, M. Abschritt, F. De Groot, E. M. Gutierrez-Farewik</i></p> <p>10:52am - 11:04am CALIBRATION OF A NEUROMUSCULOSKELETAL MODEL AT THE JOINT TORQUE AND JOINT STIFFNESS LEVELS SIMULTANEOUSLY <i>C. P. Cop, A. S. Chouhan, B. Koopman, M. Sartori</i></p> <p>11:04am - 11:16am ESTIMATING A SINGLE MAXIMUM MUSCLE-TENDON LENGTH FROM DISCRETIZED MUSCLES <i>C. Hayward, E. Montefiori, E. Prati, C. Mazza</i></p> <p>11:16am - 11:28am QUANTITATIVE VALIDATION OF A DEEP LEARNING BASED MARKERLESS MOTION CAPTURE SYSTEM <i>T. Templin, T. Ellison, D. Chambers, N. Louis, O. Medjrou, K. Saylor, D. Nicollela</i></p> <p>11:28am - 11:40am SMART FLEXIBLE GARMENT AND RAPID NEUROMUSCULOSKELETAL MODELLING FOR FAST AND ACCURATE CLINICAL DECISION-MAKING <i>D. Simonetti, B. Koopman, S. Massimo</i></p>	<p>TR03.10</p> <p>HARD TISSUE BIOMECHANICS IV: BONE REMODELING, AND DISEASES Chairs: Enrico Dall'Acqua, Alexandra Tits</p> <p>10:15am - 10:27am EFFECTS OF AN ALTERNATING PTH AND MECHANICAL LOADING TREATMENT IN AN OVARIECTOMIZED MOUSE MODEL <i>V. S. Cheng, B. Roberts, V. Kodikamanathan, E. Dall'Acqua</i></p> <p>10:27am - 10:39am HOMOLOGIZED-FE-BASED INVERSE BONE REMODELING: MODIFIED OPTIMIZATION CRITERION AND EVALUATION ON THE DISTAL RADIUS <i>S. Bachmann, D. H. Pahr, A. Synek</i></p> <p>10:39am - 10:51am MICRO-TO DERIVED MECHANICAL PROPERTIES FOR TRABECULAR BONE REFORMATION AND ADAPTATION UNDER LOADING <i>D. Boeretti, F. C. Marques, J. J. Kendall, G. A. Kuhn, E. Wehrle, Y. D. Bansod, L. Müller</i></p> <p>10:51am - 11:03am NUMERICAL AND EXPERIMENTAL APPROACH TO STUDY THE RESPONSE OF YAP AND NPC TO DIFFERENT MECHANICAL SIGNALS <i>S. Saporito, C. F. Natalo, C. Menna, P. A. Netti, M. Ventre</i></p> <p>11:03am - 11:15am DAMAGE MECHANICS OF TYPE-2 DIABETIC TRABECULAR BONE SUBJECT TO MONOTONIC AND CYCLIC LOADING <i>M. Britton, J. Schiavi, T. J. Vaughan</i></p> <p>11:15am - 11:27am IN ENDO-STAGE KNEE OSTEOARTHRITIS THE SUBCHONDRAL BONE MICROARCHITECTURE OF THE TIBIAL PLATEAU IS CORRELATED TO THAT OF THE DISTAL TIBIA <i>F. Azari, W. Colijn, J. Bellemans, L. Scheys, G. H. van Lenthe</i></p> <p>11:27am - 11:39am NEW INSIGHTS INTO HIGH-RESOLUTION STRAIN FIELDS OF TRABECULAR BONE USING DIGITAL IMAGE CORRELATION <i>N. Amraoui, D. Pahr</i></p> <p>11:39am - 11:51am SITE-MATCHED MICROPIILLAR COMPRESSION AND RAMAN SPECTROSCOPY TO ASSESS JAW BONE QUALITY <i>T. Kochetkova, A. Groetsch, C. Peruzzi, M. Indermaur, S. Remund, B. Neuenchwander, J. Hofstetter, B. Bellon, J. Michler, P. Zysset, J. Schwedrzik</i></p>	<p>TR04.10</p> <p>MECHANOBIOLOGY IV: IN SILICO Chairs: Hans Van Oosterwyck, Daphne Welts</p> <p>10:15am - 10:27am A 3D COMPUTATIONAL MODEL OF AORTIC VALVE INTERSTITIAL CELL CONTRACTILE BEHAVIOR WITHIN A PEG HYDROGEL MEDIUM <i>A. Zhang, M. S. Sacks</i></p> <p>10:27am - 10:39am AGENT-BASED MODEL OF VASCULOGENESIS INCLUDING CELL-ECM INTERACTIONS <i>A. Carrasco-Martín, T. Alarcón, J. A. Sanz-Herrera</i></p> <p>10:39am - 10:51am THE ROLE OF OUTER-VASCULAR MECHANICS ON SPROUTING ANGIOGENESIS: AN IN SILICO STUDY <i>C. Dazzi, J. Mehl, G. N. Dudz, S. Checa</i></p> <p>10:51am - 11:03am FINITE ELEMENT APPROACH TO STUDY THE RESPONSE OF YAP AND NPC TO DIFFERENT MECHANICAL SIGNALS <i>S. Saporito, C. F. Natalo, C. Menna, P. A. Netti, M. Ventre</i></p> <p>11:03am - 11:15am MAGNETO-ACOUSTIC INTERACTION IN MAGNETIC NANOSYSTEMS <i>R. Marques, A. Ashofteh Yazdi, J. Melchor, R. Ibarra, G. Rus</i></p> <p>11:15am - 11:27am AGENT-BASED MODEL OF LONG-TERM DISEASE PROGRESSION IN DUCHENNE MUSCULAR DYSTROPHY <i>K. Crump, S. Peice-Cottler, S. Blenkner</i></p> <p>11:27am - 11:39am IN SILICO AVATARS OF CELLS TO PREDICT AND DRIVE CELL MIGRATION ON TRAVELLING WAVES <i>J.-L. Milan, M. Vossaux, L. Pieuchot, R. Anselme, I. Manflicier</i></p>	<p>TR05.10</p> <p>SPORT BIOMECHANICS II Chairs: António Prieto Veloso, Joao Paulo Vilas-Boas</p> <p>10:15am - 10:27am CONTRIBUTIONS TO THE SHAPE OF THE FORCE-VELOCITY RELATIONSHIP IN SIMULATIONS OF LOADED SQUAT JUMPS <i>S. J. Allen</i></p> <p>10:27am - 10:39am A KINEMATIC ANALYSIS OF THE 10-BALL BREAK IN PROFESSIONAL POOL BILLIARDS <i>P. Kornfeldt, J. Boinjdl, A. Baca</i></p> <p>10:39am - 10:51am DO FATIGUE-INDUCED CHANGES IN COGNITIVE PERFORMANCE RELATE TO CHANGES IN KNEE MECHANICS? <i>F. Bertozzi, P. D. Fischer, F. Alfatouman, K. A. Hutchison, M. Galli, M. Tardino, C. Storzo, S. M. Montfort</i></p> <p>10:51am - 11:03am FINGERBOARD HANGING LOCK-OFFS: REFINING PRACTICE GUIDELINES FOR CLIMBERS <i>J. Ekel, O. Froschauer, D. Deimel, A. Baca, H. Kainz</i></p> <p>11:03am - 11:15am FINITE ELEMENT MODELLING OF SPORTS FOOTWEAR GRIP PERFORMANCE ON WET HARD SURFACES <i>L. Sissler, J. Gringet-Chare, K. Beschornes, T. Tarrade</i></p> <p>11:15am - 11:27am ACCURACY OF A NEW LOCAL POSITIONING SYSTEM IN OBTAINING SPEED AND ACCELERATION DURING GAME SPORTS MOVEMENTS <i>P. X. Fuchs, Y.-C. Chou, W.-H. Chen, N. J. Fiolo, F.-H. Shiang</i></p>	<p>TR06.10</p> <p>IMPACT / INJURY BIOMECHANICS II Chairs: David Milton, Ciaran Simms</p> <p>10:15am - 10:40am MODELLING BLAST INJURY: FROM CLINICAL DATA TO PATHOPHYSIOLOGY AND PROTECTION <i>S. Masouras</i></p> <p>10:40am - 10:52am TOWARDS COMPUTATIONAL MODELLING OF ACTIVE RESPONSE IN CYCLIST FALLS FROM IN-THE-WILD FOOTAGE <i>K. Gildea, C. Simms</i></p> <p>10:52am - 11:04am SIMULATION OF BICYCLE ACCIDENTS USING HUMAN BODY MODELS <i>K. Bratby, V. Alvarez, A.-K. Sæther, D. Olsson, H. Wendelup</i></p> <p>11:04am - 11:16am PERI-PROSTHETIC FRACTURE MODELLING USING A COMBINED FINITE ELEMENT - SMOOTH PARTICLE HYDRODYNAMIC METHOD <i>O. Cebece, S. Checa</i></p> <p>11:16am - 11:28am SIMULATING HEAD-FIRST IMPACT IN SPORT: A HYBRID MULTIBODY AND FINITE ELEMENT HEAD AND NECK MODEL <i>T. Holzinger, J. Martinek, D. Cazzola, B. Sagl</i></p> <p>11:28am - 11:40am BIOMECHANICAL BEHAVIOUR OF THE TRANSVERSE LIGAMENT OF THE ATLAS: AN IN VITRO EXPERIMENTAL ANALYSIS <i>S. Laporte, S. Persohn, B. Sandoz</i></p>	<p>TR07.10</p> <p>ERGONOMICS / OCCUPATIONAL BIOMECHANICS / REHABILITATION I Chairs: Margit Göblicher, Xuyuang Wang</p> <p>10:15am - 10:40am EXPERIMENTAL AND BIOMECHANICAL MODELING INVESTIGATIONS FOR UNDERSTANDING SEATING DISCOMFORT <i>J. Wang</i></p> <p>10:40am - 11:05am EMMA-DRIVE - DIGITAL HUMAN TWINS FOR EVALUATING ERGONOMICS AND SAFETY IN NEW MOBILITY SOLUTIONS <i>J. Lim, J. Fahr</i></p> <p>11:05am - 11:17am MOTION ANALYSIS OF THERAPEUTIC CLIMBING: A REHABILITATION TOOL FOR CHILDREN WITH CEREBRAL PALSY <i>C. Monali, G. Simoni, J. A. Tuhutan, E. Palermi, M. Galli, A. Colombo</i></p> <p>11:17am - 11:29am MUSCLE ACTIVITY ASSOCIATED WITH PERFORMING ROBOT-ASSISTED AND CONVENTIONAL LAPAROSCOPY <i>A. Shugaba, J. Lambert, H. Nuttall, D. Subar, C. Gaffney, T. Bampouras</i></p>	<p>TR08.10</p> <p>BIOFLUID AND TRANSPORT I Chairs: Frans van de Vosse, Junfeng Zhang</p> <p>10:15am - 10:40am COMPUTER MODELLING AND INVESTIGATIONS OF CAPSULE DYNAMICS IN FLOWS: MEMBRANE VISCOSITY EFFECT <i>J. Zhang</i></p> <p>10:40am - 10:52am UMBILICAL CORDS ABNORMALITIES CLASSIFICATION BASED ON FLOW SIGNALS FROM DOPPLER ULTRASOUND SIMULATOR <i>S. Natfali, Y. Nazemzay Ashkenazi, A. Ratsnovsky</i></p> <p>10:52am - 11:04am NEAR WALL DYNAMICS OF A TILTED LIGHTHOUSE RETURN CANNULA <i>F. Fiasco, L. M. Broman, L. PrahlWitzberg</i></p> <p>11:04am - 11:16am AN IN-SILICO PIPELINE FOR PATIENT-SPECIFIC HAEMODYNAMIC ANALYSIS OF THE AORTA <i>S. Black, C. Maclean, P. Hall Barrientos, K. Ritos, A. Kazakidi</i></p>
11:45 - 12:30	Keynote lecture 3: MODELLING THE HUMAN NEUROMUSCULAR SYSTEM ACROSS SPATIO-TEMPORAL SCALES FOR A NEW CLASS OF MOVEMENT ENHANCING TECHNOLOGIES, Massimo Sartori, Chairs: Jérôme Noailly, Paulo Rui Fernandes							
12:30 - 13:15	Lunch break							
13:15 - 14:00	Poster sessions: P513 - P518							
14:00 - 15:00	Best Doctoral Thesis Award, Chairs: Markus Heller, Ivo Jonkers							
15:00 - 15:30	Coffee break							
15:30 - 16:45	<p>TR01.12</p> <p>CARDIOVASCULAR IX: IMAGE-BASED BIOMECHANICS Chairs: Fanette Chassagne, Diego Gallo</p> <p>3:30pm - 3:42pm DECIPHERING VORTICITY IN THE ABDOMINAL AORTIC ANEURYSM <i>V. Mazzi, K. Calò, D. Gallo, A. Iolla, U. Morbiducci</i></p> <p>3:42pm - 3:54pm PREDICTION OF ANALOG THROMBI MECHANICAL PROPERTIES, COMPOSITION, AND CONTRACTION USING CT IMAGING <i>J. M. H. Cruts, J.-A. Goetzen, K. van Goolen, R. Beurskens, Y. Rivkin, M. L. Dijkshoorn, H. M. M. van Beusekom, N. Boedé, A. vander Lugt, F. Gijzen, R. Cihalova</i></p> <p>3:54pm - 4:06pm UNIVERSAL LEFT ATRIAL APPENDAGE COORDINATES TO COMPARE AND CLASSIFY PHENOTYPIC FLOW PATTERNS <i>J. Dueñas-Pampalona, A. Gonzalez, S. F. Bifulco, P. M. Boyle, E. McVeigh, A. M. Kahn, P. Martinez-Legazpi, J. Garcia Garcia, J. Sierra-Pallares, M. Garcia-Villalba, O. Flores, J. Bermejo, J. C. del Álamo</i></p> <p>4:06pm - 4:18pm PATIENT-SPECIFIC FLOW SIMULATIONS OF A DISSECTED AORTA INFORMED BY 4D FLOW MRI: THE IMPACT OF SEGMENTAL ARTERIES <i>C. Stokes, F. Hagoit, D. Beckes, V. Muthurangu, H. van Tongg-Roblygk, S. Baisani, V. Diaz-Zuccarini</i></p> <p>4:18pm - 4:30pm 4D FLOW MRI AS NETWORK-BASED ANALYSIS OF THE HEMODYNAMIC CORRELATION PERSISTENCE LENGTH IN THE HEALTHY AORTA <i>K. Calò, A. Guato, D. Gallo, J. Rodriguez Palomares, S. Scarsoglio, L. Ridolfi, U. Morbiducci</i></p> <p>4:30pm - 4:42pm CALIBRATION OF THE MECHANICAL BOUNDARY CONDITIONS OF A THORACIC AORTA MODEL INCLUDING THE HEART MOTION EFFECT <i>L. Geranzi, A. Martinez, M. E. Biancolini, M. Rochette, O. Bouchot, A. Lalonde, P. P. Valentini</i></p>	<p>TR02.12</p> <p>MUSCULOSKELETAL BIOMECHANICS V: KNEE AND OTHERS Chairs: Annetreg Mündermann, Cloude Fiifi Hayford</p> <p>3:30pm - 3:42pm A NEW GENERALIZED CONTINUUM APPROACH TO MODEL SPINAL GROWTH <i>N. M. Castoldi, M. Antico, M. Martin, P. Pivonka, V. Sansalone</i></p> <p>3:42pm - 3:54pm EXPERIMENTAL INVESTIGATION OF THE FRACTURE MECHANICS OF FEMURS OF ZUCKER DIABETIC FATTY (ZDF) RATS <i>G. E. Manahan, J. Schiavi-tritz, T. J. Vaughan</i></p> <p>3:54pm - 4:06pm INFLUENCE OF LIMB ALIGNMENT AND KNEE JOINT LOADING ON CONDYLAR KINEMATICS USING DYNAMIC VIDEOFLUOROSCOPY <i>B. Postolka, O. Ulrich, W. R. Taylor, R. List, P. Schütz</i></p> <p>4:06pm - 4:18pm CHARACTERISING THE RELATIONSHIP BETWEEN KNEE BONE GEOMETRY AND PASSIVE KINEMATICS <i>D. O'Rourke, F. Bucci, W. Burton, R. Al-Dirini, M. Taylor, S. Martelli</i></p> <p>4:18pm - 4:30pm VARIATION IN KNEE CONTACT MECHANICS DUE TO ANATOMY <i>J. Yao, G. Day, N. Wijayathunga, A. Jones, R. Wilcox, M. Mengoni</i></p> <p>4:30pm - 4:42pm HIGH TIBIAL OSTEOTOMY NORMALIZES KNEE AMBULATORY LOADS <i>E. De Piere, C. Nüesch, G. Pagenstert, E. Vriethweg, C. Egloff, A. Mündermann</i></p>	<p>TR03.12</p> <p>IMPLANTS / ORTHOTICS / PROSTHETICS / DEVICES VIII: MULTIPLE TOPICS Chairs: Peter Varga, Mauricio Cruz Soldvar</p> <p>3:30pm - 3:42pm A COMPUTATIONAL MODEL OF THE ZEBRAFISH HEART <i>L. Cestariolo, G. Luaghi, P. L'Eplattenier, J. F. Rodriguez Matas</i></p> <p>3:42pm - 3:54pm LAMENESS INFLUENCES BREAKOVER DURATION IN HORSES <i>E. V. Briggs, C. Mazza</i></p> <p>3:54pm - 4:06pm HISTOMORPHOMETRIC ANALYSIS OF CANINE TRABECULAR BONE IN THE OSTEOOPROTIC CONTEXT <i>E. Kostenko, A. Pochkov, V. A. Maknickas</i></p> <p>4:06pm - 4:18pm LOAD TRANSFER IN CUSTOM MADE IMPLANT FOR OSTEOCHONDRAL LESION, A FINITE ELEMENT STUDY <i>A. Ramos, M. Vieira</i></p> <p>4:18pm - 4:30pm BIOMECHANICAL EVALUATION OF A NOVEL BIOMIMETIC ARTIFICIAL DISC PROSTHESIS IN CANINE CERVICAL CADAVERIC SPINES <i>S. Ghazanfari, M. A. Tryfonidou, J. Arts, B. P. Meij, K. Ido</i></p> <p>4:30pm - 4:42pm NOVEL BIODEGRADABLE CAROTID GRAFT: EXPERIMENTAL ASSESSMENT THROUGH HAN ANIMAL TRIAL <i>A. Hendrickx, M. Ghazemi, T. Vermeire, T. Langenaeken, H. Bauer, H. Fehervary, M. Cox, P. Clous, F. Rega, N. Farnoya, B. Meuris</i></p> <p>4:42pm - 4:54pm INTEGRATION OF MUSCULOSKELETAL AND MODEL ORDER REDUCED FE SIMULATION FOR PASSIVE ANKLE FOOT ORTHOSIS DESIGN <i>D. Scherb, P. Steck, S. Wartzack, J. Hiebling</i></p> <p>4:54pm - 4:66pm HIGH-FIDELITY FINITE ELEMENT STENT-GRAFT MODELING <i>A. Ramella, E. Migliavacca, J. E. Rodriguez Matas, F. Dedola, M. Lantini, F. Heim, S. Aliev, D. Bissacco, M. Damiani, S. Tramacchi, G. Lasagni</i></p>	<p>TR04.12</p> <p>ANIMAL AND PLANT BIOMECHANICS Chairs: Christian Peham, Balázs Geris</p> <p>3:30pm - 3:42pm A COMPUTATIONAL MODEL OF THE ZEBRAFISH HEART <i>L. Cestariolo, G. Luaghi, P. L'Eplattenier, J. F. Rodriguez Matas</i></p> <p>3:42pm - 3:54pm LAMENESS INFLUENCES BREAKOVER DURATION IN HORSES <i>E. V. Briggs, C. Mazza</i></p> <p>3:54pm - 4:06pm HISTOMORPHOMETRIC ANALYSIS OF CANINE TRABECULAR BONE IN THE OSTEOOPROTIC CONTEXT <i>E. Kostenko, A. Pochkov, V. A. Maknickas</i></p> <p>4:06pm - 4:18pm APPLYING PRINCIPAL COMPONENT ANALYSIS TO CHARACTERIZE THE BALANCING ABILITY OF ELITE SYNCHRONIZED ICE SKATERS <i>Z. Poly, B. Petra, R. M. Kiss</i></p> <p>4:18pm - 4:30pm THE INFLUENCE OF SEX, AGE AND PEAK KNEE ISOKINETIC TORQUE ON SINGLE LEG HOP DISTANCE <i>S. Herger, L. Bähli, C. Nüesch, S. Müller, C. Egloff, A. Mündermann</i></p>	<p>TR05.12</p> <p>SPORT BIOMECHANICS III Chairs: Joao Paulo Vilas-Boas, Hans Kainz</p> <p>3:30pm - 3:42pm BALL-FINGER POSITIONING FOR ACCURATE BASEBALL PITCHING <i>M. Kusafuka, K. Nishikawa, N. Tsukamoto, K. Kudo</i></p> <p>3:42pm - 3:54pm GROUND REACTION FORCE PREDICTION DURING RUNNING USING A FULL-BODY MULTIBODY MODEL <i>G. Marta, J. F. Faldago, C. Quental, F. G. Pinto</i></p> <p>3:54pm - 4:06pm EFFECT OF DIFFERENT PLAYERS' MOTION MODELS ON LINEAR AND NON-LINEAR MEASURES OF SPACE CONTROL IN FUTSAL <i>J. Bischofberger, J. Ekel, B. Travassos, J. Sampaio, A. Baca</i></p> <p>4:06pm - 4:18pm APPLYING PRINCIPAL COMPONENT ANALYSIS TO CHARACTERIZE THE BALANCING ABILITY OF ELITE SYNCHRONIZED ICE SKATERS <i>Z. Poly, B. Petra, R. M. Kiss</i></p> <p>4:18pm - 4:30pm THE INFLUENCE OF SEX, AGE AND PEAK KNEE ISOKINETIC TORQUE ON SINGLE LEG HOP DISTANCE <i>S. Herger, L. Bähli, C. Nüesch, S. Müller, C. Egloff, A. Mündermann</i></p>	<p>TR06.12</p> <p>IMPACT / INJURY BIOMECHANICS III Chair: David Milton</p> <p>3:30pm - 3:42pm BIOMECHANICAL STUDY OF ELECTRIC SCOOTER FALLS <i>M. Fournier, H. Bailly, A. Schiavula, Y. Petit</i></p> <p>3:42pm - 3:54pm E-SCOOTER CRASH SCENARIO AND KINEMATICS: ANALYSIS OF 112 CRASH VIDEOS <i>N. Bailly, S. Honore, Y. Petit, A. Noaim, A. Müller, W. Wei</i></p> <p>3:54pm - 4:06pm PELVIC SUBCUTANEOUS ADIPOSE TISSUE THICKNESS AND OUTER SHAPE CHANGE WITH POSITION FOR NUMERICAL MODELING <i>D. Nianesich, J. Muehlebauer, F. C. Sattler, N. Hoellhoff, R. E. Giunta, S. Peldschus, S. Schick</i></p> <p>4:06pm - 4:18pm BIOMECHANICAL EVALUATION OF THE SPATIAL CONFIGURATIONS OF STABILIZER USED IN DISTAL HUMERUS FRACTURE TREATMENT <i>A. Kruszevski, P. Piekarczyk, S. Piszczatowski</i></p> <p>4:18pm - 4:30pm CHANGES IN LOADING DURING FRACTURE HEALING DO NOT IMPACT BONE MICROARCHITECTURE OF THE CONTRALATERAL RADIUS <i>D. Whittier, M. Waile, P. Christen, P. Atkins, C. Collins, M. Blauth, K. Lippuner, R. Müller</i></p> <p>4:30pm - 4:42pm DEVELOPMENT OF A SIMPLIFIED HUMAN THORACIC FE MODEL FOR BLUNT IMPACT AND RELATED TRAUMA <i>M. Chaufer, R. Deille, B. Bourel, C. Marechal, F. Laura, O. Mauzac, S. Roth</i></p>	<p>TR07.12</p> <p>ERGONOMICS / OCCUPATIONAL BIOMECHANICS / REHABILITATION II Chairs: Margit Göblicher, Xuyuang Wang</p> <p>3:30pm - 3:55pm INDIVIDUALIZED VS. POPULATION-BASED MUSCULOSKELETAL SIMULATION FOR MEDICAL AND PRODUCT ENGINEERING <i>J. Mieling</i></p> <p>3:55pm - 4:07pm TOWARDS THE LEARNING OF HUMAN-SEAT INTERACTIONS FOR RUNTIME EFFICIENT HUMAN MODELS BASED ON PRESSURE DISTRIBUTION <i>D. A. Falset, M. Rallef, F. Kempster, J. Fahr</i></p> <p>4:07pm - 4:19pm FE MODELING AND SIMULATION OF THE CUPULA DEFORMATION OF A SEMICIRCULAR CANAL IN A CLINICAL ROUTINE <i>M. Blaise, D. Baumgartner, A. Charpiot</i></p>	<p>TR08.12</p> <p>BIOFLUID AND TRANSPORT II Chairs: Frans van de Vosse, Junfeng Zhang</p> <p>3:30pm - 3:42pm THROMBUS FORMATION IN A STENO TIC CHANNEL: A VISCOELASTIC MATERIAL MODEL <i>M. Rezaeimoghaddam, O. Dhaensens, A. Germain, F. N. van de Vosse</i></p> <p>3:42pm - 3:54pm STUDY OF THE FLUID BEHAVIOUR IN 3D PRINTED MACROSCAFFOLDS USING CFD ANALYSIS AND PIV <i>T. Baumgartner, E. Yarov, M. Bösenhofer, O. Guillaume, A. Orsianikov, M. Hanzek, M. Göblicher</i></p> <p>3:54pm - 4:06pm HIGH DENSITY MICROFLUIDIC TRAP ARRAY GEOMETRIC OPTIMIZATION VIA COMPUTATIONAL FLUID DYNAMICS STUDY <i>N. Ruysse, J. Fattaccioni, M.-C. Jullien, R. Allena</i></p>
16:45 - 17:15	ESB 2022 Closing Ceremony							