



Poster session A - Cromdale Hall

COMPUTATIONAL METHODS FOR CARDIOVASCULAR APPLICATIONS

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Poster session B - Strathblane Hall

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C109	1308	SENSITIVITY ANALYSIS OF THE HYBRID CARDIOVASCULAR SIMULATION DEVICE <i>Wazydrag, Igor</i>
C110	1073	AUTOMATED WORKFLOW FOR CONSTRUCTING VIRTUAL TWINS FOR HAEMODYNAMIC ANALYSIS OF STENOSED NATIVE AORTIC VALVES <i>Mehari, Hyab</i>
C111	579	EFFECTS OF OCCUPANT BEHAVIOR ON HEAD ACCELERATION IN A LEVEL 3 AUTONOMOUS DRIVING SIMULATOR <i>Olayan, Ali</i>
C112	1220	ESTIMATING MATERIAL PARAMETERS OF GOAT TIBIA UNDER IMPACT BENDING USING INVERSE CHARACTERIZATION METHOD <i>Malik, Ankit</i>
C113	400	ELUCIDATING THE EFFECT OF ZETA POTENTIAL AND PARTICLE SIZE ON NANOPARTICLE DIFFUSION IN BRAIN TUMOURS <i>Yang, Yi</i>
C114	306	CRYSTALLINE LENS WOBBLING: IN VIVO AND OPTOMECHANICAL SIMULATION RESULTS <i>Dahaghin, Ali</i>
C115	493	HEALTHY, INJURED AND PLASMA-TREATED CORNEA: TENSILE TESTS AND FEM ANALYSIS BY A WHOLE EYE MODEL <i>Mascolini, Maria Vittoria</i>
C116	976	CORRELATION BETWEEN INTERNAL AND EXTERNAL BONY PELVIS DIMENSIONS IN NULLIPAROUS WOMEN <i>Jansová, Magdalena</i>
C117	1336	CHARACTERIZATION OF BIODEGRADABLE PCL COG-THREADS FOR PELVIC ORGAN PROLAPSE TREATMENT <i>Teixeira Pinheiro, Fábio André</i>
C118	1099	A NEW CLINICAL TOOL FOR THE REGULATION OF ECMO SUPPORT IN PATIENTS UNDER CARDIAC SHOCK <i>Gasparotti, Emanuele</i>
C119	1306	ASSESSMENT OF MUSCLE FUNCTION AND GAIT ASYMMETRY AFTER A STRAYER PROCEDURE APPLIED TO A CHILD WITH CEREBRAL PALSY <i>Prieto Veloso, Antonio</i>
C120	648	PATIENT VARIABILITY IN EXERCISE-INDUCED PRESSURE DROP ACROSS AORTIC COARCTATIONS <i>Perra, Emanuele</i>



Poster session D - Strathblane Hall

CELLULAR AND MOLECULAR BIOMECHANICS

D1	649	MULTI-CELL MODELLING OF THE SKELETAL MUSCLE MICROENVIRONMENT TO EXPLORE AGE-RELATED CHANGES IN SATELLITE CELL DYNAMICS <i>Khuu, Stephanie</i>
D2	724	PM2.5 INDUCED LYSOSOMAL RUPTURE-MEDIATED PYROPTOSIS IN HVFFS <i>Kim, Choung Soo</i>
D3	1001	MECHANICAL PROPERTIES OF ARTIFICIAL CELLS DETERMINED BY MATHEMATICAL MODELS <i>Mendová, Katarína</i>
D4	1183	THE BIODYNAMO PLATFORM FOR HIGH-PERFORMANCE AGENT-BASED MODELLING OF CELL BIOMECHANICS <i>Vavourakis, Vasileios</i>

MUSCULOSKELETAL BIOMECHANICS

D5	185	NOVEL MUSCLE FATIGUE MODEL FOR PREDICTING METABOLIC INHIBITION AND LONG-LASTING NONMETABOLIC COMPONENTS <i>Beron, Santiago</i>
D6	218	A FINITE-ELEMENT MUSCULOSKELETAL MODEL INCORPORATING A DEFORMABLE CONTACT MODEL OF KNEE JOINT WITH 3D LIGAMENT <i>Wang, Dangdang</i>
D7	274	FEMORAL NECK LOADING UNDER HIGH IMPACT ACTIVITIES: COUPLED MUSCULOSKELETAL-FINITE ELEMENT ANALYSIS <i>Altai, Zainab</i>
D8	316	ADVANCEMENTS IN WRIST BIOMECHANICS: DEVELOPMENT OF A COMPREHENSIVE LINEAR FINITE ELEMENT MODEL <i>Yang, James</i>
D9	333	VERTICAL GROUND REACTION FORCE AND CENTER OF PRESSURE PREDICTION DURING LIFTING ACTIVITIES USING MACHINE LEARNING <i>Mohseni, Mahdi</i>
D10	359	INTERLIMB DIFFERENCES IN MEDIAL KNEE JOINT SPACE WIDTH AND MUSCULOSKELETAL FUNCTION AFTER 3-10 YEARS OF ACL SURGERY <i>Stenroth, Lauri</i>
D11	370	DEVELOPMENT OF A NOVEL HUMAN SHOULDER SIMULATOR <i>Williams, Sophie</i>
D12	438	BIOMECHANICAL EVALUATION OF THE SECONDARY STABILIZER FOR PREVENTING SCAPHOLUNATE DISSOCIATION <i>Kwak, Dai-Soon</i>
D13	529	AN INVESTIGATION OF THE FLUID STRUCTURE INTERACTION ARISING IN ARTICULAR CARTILAGE ACROSS DISPARATE SCALES <i>Butler, Emily Jayne</i>
D14	574	A COUPLED MULTI-SCALE TWO-MUSCLE-ONE-TENDON MODEL OF THE AGONIST-ANTAGONIST MYONEURAL INTERFACE <i>Homs-Pons, Carme</i>
D15	643	THE IMPACT OF MEDIAL MENISCECTOMY ON KNEE JOINT MECHANICS MAY BE PATIENT-SPECIFIC <i>Li, Le Ping</i>
D16	652	THE IMPACT OF THE AGEING PROCESS AND MASS CHANGE ON THE ABILITY TO PERFORM ACTIVITIES OF DAILY LIVING - A MODEL STUDY <i>Zadoń, Hanna</i>
D17	660	ANALYSING THE EFFECTS OF SIMULATING MARROW IN PAEDETRIC FEMUR BONES <i>Allison, George</i>
D18	665	PROXIMAL MUSCLES LEAD BALANCE RECOVERY IN MEDIOLATERAL GYROSCOPIC MOMENT PERTURBATIONS DURING WALKING <i>Mohseni, Omid</i>
D19	690	OPENDIHU: SCALABLE FINITE ELEMENT FRAMEWORK FOR SKELETAL MUSCLE SIMULATIONS <i>Ghosh, Gautam Debeshkumar</i>
D20	726	FULL-CORTICAL VS DETAILED ANATOMICAL VERTEBRA FOR PRECLINICAL ASSESSMENT OF SPINAL IMPLANTS <i>Ghosh, Rajdeep</i>
D21	731	MUSCULOSKELETAL SIMULATION FOR LOAD ASSESSMENT OF GAIT ON 3D-NETWORK-STRUCTURED FIBER MATERIAL <i>Tawara, Daisuke</i>
D22	741	EFFECTS OF GASTROCNEMIUS BOTOX INJECTION FOR CALF HYPERTROPHY ON BALANCE CONTROL DURING SLOPED WALKING <i>Lin, Shang Hsi</i>
D23	757	PERSONALIZED STATISTICAL MODELING OF SOFT TISSUE STRUCTURES DURING KNEE FLEXION <i>Van Oevelen, Aline</i>
D24	877	OPTIMIZING FRACTURE HEALING: REALISTIC BOUNDARY CONDITIONS <i>Andres, Annchristin</i>
D25	927	A METHOD FOR THE RECONSTRUCTION OF SUBTALAR KINEMATICS FROM CT SCAN: TOWARD AN EVOLUTIONARY PERSPECTIVE <i>Conconi, Michele</i>
D26	940	FEA OF SI SCREW FIXATION OF CONTRALATERAL SUBSEQUENT FRACTURE AT THE POSTERIOR PELVIC RING. <i>Klimek, Matthias</i>
D27	944	NEUROMUSCULAR ACTIVATION OF THE FOOT'S MUSCLES DURING STRENGTHENING EXERCISES AND EVERYDAY MOVEMENTS <i>Wisdsh, Samuel Jack</i>
D28	950	MUSCLE SELECTION IN A NOVEL PREDICTIVE SIMULATION FRAMEWORK FOR ELECTRICAL STIMULATION CYCLING <i>Cardoso de Sousa, Ana Carolina</i>
D29	953	A HUMAN WHOLE-BODY MODEL, WITH CONSIDERATION OF THE CONNECTIVE TISSUE <i>Stark, Heiko</i>
D30	961	LOW BACK PAIN IS NOT JUST BIOMECHANICS: ASSOCIATED BIOPSYCHOSOCIAL FACTORS IN LOWER LIMB AMPUTEES <i>Watson, Fraje</i>
D31	969	EFFECTS OF SUPERIOR CAPSULE RECONSTRUCTION ON GLENOHUMERAL CONTACT PATTERNS USING 3D FLUOROSCOPY <i>Hung, Li-Wei</i>
D32	974	IMPACT OF ROTATOR CUFF TEARS ON MUSCLE FORCES IN WEIGHT-BEARING SHOULDERS <i>Genter, Jeremy</i>
D33	993	EFFECTS OF SCOLIOSIS ON INTER-SEGMENTAL COORDINATION IN MIDDLE-AGE PERSON DURING OBSTACLE-CROSSING <i>Lo, Wen-Horng</i>
D34	995	IMU-BASED IDENTIFICATION METHOD FOR JOINT AXES IN OPENSIM - A PROOF OF CONCEPT <i>Wechsler, Iris</i>
D35	997	ENHANCING FEM MODELLING OF THE CERVICAL SPINE WITH NOVEL MODELING TECHNIQUES <i>Silva, Afonso J. C.</i>
D36	998	MODELLING POSTURAL CONTROL OF UPRIGHT STANDING DURING TRANSLATIONAL PERTURBATIONS <i>Shanbhag, Julian</i>
D37	1015	MECHANICAL CHARACTERISATION OF THIEL-EMBALMED CADAVERS WITH ACUTE COMPARTMENT SYNDROME SIMULATION <i>Tacchella, Carolina</i>
D38	1030	THE IMPACT OF SCAPULAR POSITIONING ON GLENOHUMERAL JOINT STABILITY: A COMPUTATIONAL STUDY <i>Daniel, Matej</i>
D39	1052	EFFECT OF SUBTALAR ARTHROEREISIS ON WHOLE-BODY BALANCE CONTROL IN CHILDREN WITH FLATFOOT DURING SLOPED WALKING <i>Lee, Tsung-Lin</i>
D40	1070	TASK-SPECIFIC DIFFERENCES IN LOWER LIMB BIOMECHANICS ASSOCIATED WITH CHRONIC ANKLE INSTABILITY DURING DYNAMIC MOVEMENTS <i>Altun, Abdulaziz</i>
D41	1077	DEVELOPMENT OF AN IN-VIVO IMAGING PROTOCOL TO MEASURE THE KINEMATICS OF THE ANKLE COMPLEX <i>Williams, David Elwyn</i>

D42	1084	CONCEPTION AND EVALUATION OF A MUSCULOSKELETAL FINITE ELEMENT MODEL OF THE THORACO LUMBAR SPINE <i>Pissonnier, Marie Line</i>
D43	1148	A METHOD TO STANDARDIZE ACETABULAR BONE DEFECT IMPLEMENTATION FOR IN VITRO TESTS <i>Schierjott, Ronja A.</i>
D44	1190	INFLUENCE OF MUSCULAR MECHANICAL FORCES IN THE HALLUX DEVELOPMENT OF BIRDS AND ITS EVOLUTION. <i>Flores, Daniela Paz</i>
D45	1198	COMPARISON OF PELVIS AND HIP POSES IN DIFFERENT FULL-BODY MODELS IN VICON-NEXUS AND OPENSIM <i>Centrone, Antonia</i>
D46	1213	EFFECTS OF LUMBAR DISC REPLACEMENT ON LUMBAR SPINE STIFFNESS AND LOAD SHARING - A SIMULATION STUDY <i>Hammer, Maria</i>
D47	1240	SYNCHROTRON TOMOGRAPHY-BASED FINITE ELEMENT ANALYSIS OF RAT VERTEBRAL ENDPLATES <i>Chen, Jishizhan</i>
D48	171	NEUROMECHANICAL MODEL FOR HUMAN HOPPING ON AN OSCILLATING GROUND <i>Stasica, Maximilian Alexander</i>
D49	1249	HOW TO USE FORWARD DYNAMIC ACTIVE HYBRID FE-MB MODELS WITH MUSCLE DRIVEN APPROACH TO STUDY SPINE BIOMECHANICS <i>Remus, Robin</i>
D50	1274	MODIFYING THE THUMS MODEL TO INVESTIGATE CERVICAL SPINE SAGITTAL BALANCE IN FORWARD HEAD POSTURE <i>Rios, Katterine</i>
D51	1284	ANTHROPOMETRY AND PLANTAR PRESSURE DISTRIBUTION DURING GAIT IN MALE SUBJECTS: A NOVEL APPROACH <i>El Rich, Marwan</i>
D52	1292	BIOMECHANICAL INSIGHTS AND CLINICAL DECISION-MAKING: A STUDY ON FEMALE KNEE OSTEOARTHRITIS PATIENTS <i>Loayza Saldaña, Mayra Alejandra</i>
D53	1301	STRENGTHENING WEAK ABDOMINAL AND DORSAL MUSCLES - MODEL STUDIES ON WAYS TO REDUCE LUMBAR SPINE LOADS <i>Nowakowska-Lipiec, Katarzyna</i>
D54	1330	IN VIVO ALPHA-MOTOR NEURON PARAMETERS AND POOL PROPERTIES ESTIMATION <i>Duan, Zhihao</i>

ORTHOTICS & PROSTHETICS

D55	169	BIOMECHANICAL EFFECTS OF FOOT ORTHOSES DURING A UNILATERAL DROP JUMP TASK ON LEVEL AND INCLINED SURFACES <i>Dami, Ahmed Gabriel</i>
D56	386	ADVANCING PROSTHESIS EVALUATION: BIOMECHANICAL INSIGHTS USING ARTIFICIAL LIMB AND ROBOTIC GAIT SIMULATION <i>Harib, Gregor</i>
D57	560	DEVELOPMENT OF AN INNOVATIVE ORTHOSIS FOR ADJUSTABLE OFFLOADING OF THE FOOT AND ANKLE DURING GAIT <i>Saffuri, Eshraq</i>
D58	739	ASSESSMENT OF USABILITY AND PERFORMANCE OF A LOW-COST HAND EXOSKELETON FOR ASSISTANCE <i>Sancho-Bru, Joaquín L.</i>
D59	742	MUSCULOSKELETAL SIMULATION FOR HUMAN-CENTRED ENGINEERING OF WEARABLE ASSISTIVE DEVICES <i>Scherb, David</i>
D60	761	A DEDICATED CHILDREN ORTHOSIS FOR VIDEOGAME-BASED PLAY <i>Romanò, Jacopo</i>
D61	847	IMPROVING LYMPHEDEMA TREATMENT WITH TEXTURED BANDS – A NUMERICAL APPROACH <i>Molimard, Jérôme</i>
D62	1152	AUTOMATED GENERATION OF PROSTHETIC SOCKET GEOMETRY FROM MRI DATA <i>Mrozek-Czajkowska, Agata</i>
D63	1193	STUDY OF PROSTHETIC ARMS USER'S NEEDS FOR IMPROVING THE DESIGN AND MANUFACTURING OF 3D-PRINTED SOCKETS <i>Llop-Harillo, Immaculada</i>
D64	1247	HOW AFO TRIMLINES AFFECT ANKLE DORSIFLEXION: A FINITE ELEMENT ANALYSIS <i>Behforootan, Sara</i>
D65	1248	A SYSTEMATIC REVIEW OF FOOTWEAR DESIGN FEATURES FOR FOOT AGING RELATED PROBLEMS <i>Lin, Chaofan</i>

BIOMATERIALS

D66	975	EVALUATION OF THE BIOMECHANICAL PROPERTIES AND BIOINTEGRABILTY OF TISSUE-MIMICKING HYDROGELS <i>Kainz, Manuel P.</i>
D67	1325	INVESTIGATION OF 3 YEARS BIODEGRADATION OF PCL SCAFFOLDS WITH BIOGLASS AND GHAPENE USING MICROCT <i>Nikodem, Anna</i>