



Sunday, 30 June 2024

8:30am – 7:30pm	Registration
9:00am – 11:30am	Pre-course: Constitutive modelling of soft tissues (Kilsyth Suite); Xiaoyu Luo, Hao Gao, Nicholas Hill & Namshad Thekkethil
9:00am – 12:30pm	Pre-course: Machine learning in computational biomechanics (Tinto Suite); Ankush Aggarwal, Chaitanya Kaul & Choon Hwai Yap
11:00am – 1:30pm	Morning ESB Walk (Arthur's Seat and Holyrood Park)
12:30pm – 3:00pm	Pre-course: REFRAME - Interpreting joint motion patterns (Moorfoot Suite); William R. Taylor, Ariana Ortigas Vasquez & Adrian Sauer
2:30pm – 5:00pm	Afternoon ESB Walk (Arthur's Seat and Holyrood Park)
3:30pm – 6:00pm	Pre-course: Digital image correlation (Tinto Suite); Fabrice Pierron & Pascal Lava Pre-course: Constitutive modelling of hard tissues (Kilsyth Suite); Philippe Zysset & Uwe Wolfram
6:30pm – 8:00pm	ESB 2024 Welcome reception (Cromdale Hall)

Monday, 1 July 2024

	Pentland Suite	Sidlaw Auditorium	Fintry Auditorium	Tinto Suite	Moorfoot Suite	Kilsyth Suite	Carrick Suite	Harris Suite	Ochil Suite
7:30am – 6:30pm	Registration								
8:30am – 9:15am	Keynote lecture: MULTI-PHYSICS MODELING IN PEDIATRIC CARDIOLOGY; Alison Marsden Chairs: Pankaj Pankaj, Michele Conti								
9:15am – 9:45am	Coffee break (Cromdale & Strathblane Hall)								
9:45am – 10:55am	TR01.1 MUSCULOSKELETAL BIOMECHANICS I: LOWER EXTREMITY I Chairs: David Mitton, David Elwyn Williams	TR02.1 COMPUTATIONAL METHODS FOR ORTHOPAEDIC APPLICATIONS I Chairs: Paulo Fernandes, André P. G. Castro	TR03.1 HARD TISSUE BIOMECHANICS I Chairs: Davide Ruffoni, Uwe Wolfram	TR04.1 SOFT TISSUE BIOMECHANICS I: KNEE & CARTILAGE Chairs: Michael Crichton, Raul Aparicio-Yuste	TR05.1 COMPUTATIONAL METHODS FOR CARDIOVASCULAR APPLICATIONS I Chairs: Michael S Sacks, Giulia Luraghi	TR06.1 CARDIOVASCULAR BIOMECHANICS I: LARGE VESSEL BIOMECHANICS I Chairs: Francesco Sturla, Ali Cagdas Akyildiz	TR07.1 ADDITIVE MANUFACTURING FOR BIOMECHANICS I: ADVANCED COMPUTATIONAL AND EXPERIMENTAL TECHNIQUES Chairs: Michele Conti, Andrew R. Hamilton	TR08.1 IN VIVO MEASUREMENTS AND SENSORS IN BIOMECHANICS Chairs: Dana Solav, Eline van der Kruk	TR09.1 SPORTS BIOMECHANICS I: FROM INJURY PREVENTION TO FULL BODY MODELLING Chairs: Genevieve Williams, Adam Trepczynski
11:00am – 1:00pm	TR01.2 MUSCULOSKELETAL BIOMECHANICS II: UPPER EXTREMITY Chairs: Angela Elizabeth Kedgley, Sara Checa Esteban	TR02.2 COMPUTATIONAL METHODS FOR ORTHOPAEDIC APPLICATIONS II Chairs: Dieter Pahr, Enrico Schileo	TR03.2 HARD TISSUE BIOMECHANICS II Chairs: Harry van Lenthe, Aurélie Levillain, Davide Ruffoni, Vee San Cheong	TR04.2 MECHANOBIOLOGY I: SOFT TISSUE AND CARTILAGE Chairs: Claire Leclach, Andreas Stylianou	TR05.2 COMPUTATIONAL METHODS FOR CARDIOVASCULAR APPLICATIONS II Chairs: Frank Gijsen, Alison Marsden	TR06.2 CARDIOVASCULAR BIOMECHANICS II: LARGE VESSEL BIOMECHANICS II Chairs: Stéphane Avril, Anna Pukaluk	TR07.2 ADDITIVE MANUFACTURING FOR BIOMECHANICS II: APPLICATIONS IN BIOMEDICAL AND TISSUE ENGINEERING Chairs: Pasquale Vena, Nazli Tumer	TR08.2 ORTHOTICS AND PROSTHETICS Chairs: Alex Dickinson, Arjan Buis	TR09.2 OCULAR BIOMECHANICS Chairs: Jorge Grasa, Benedetta Fantaci, Matteo Frigelli
1:00pm – 2:00pm	Lunch break & Exhibition viewing (Cromdale & Strathblane Hall) MEET THE BIOMECHANICS EXPERTS (Platform 5 cafe)								
2:00pm – 2:45pm	POSTER SESSION A (Cromdale Hall) POSTER SESSION B (Strathblane Hall)								
2:50pm – 3:50pm	ESB STUDENT AWARDS Chairs: Aurelie Carlier, Jérôme Noailly								
3:50pm – 4:20pm	Coffee break (Cromdale & Strathblane Hall)								
4:20pm – 5:30pm	TR01.3 MUSCULOSKELETAL BIOMECHANICS III: MUSCULOSKELETAL MODELLING WHOLE BODY I - Chairs: Darshan Sunil Shah, Bryce Adrian Killen	TR02.3 ORTHOPAEDIC IMPLANTS AND DEVICES I: TOTAL KNEE ARTHROPLASTY Chairs: Thomas M. Grupp, William R. Taylor	TR03.3 ORTHOPAEDIC IMPLANTS AND DEVICES II: FRACTURE TREATMENT AND BONE SUBSTITUTES Chairs: Ruth Wilcox, Chloe E Scott	TR04.3 SOFT TISSUE BIOMECHANICS II: CONSTITUTIVE MODELLING Chairs: María José Gómez-Benito, Elena Redaelli	TR05.3 IN VIVO MEASUREMENTS AND SENSORS IN CLINICAL BIOMECHANICS Chairs: Peter Zioupos, Seraina Anne Dual	TR06.3 CARDIOVASCULAR IMPLANTS AND DEVICES I: LIFE SUPPORT SYSTEMS AND VASCULAR ACCESS Chairs: Andrea Remuzzi, Michael Neidlin	TR07.3 TISSUE ENGINEERING I: CARDIOVASCULAR SYSTEM, TUMORS & PERFUSION Chairs: Sara Checa Esteban, Marta Peña Fernández	TR08.3 SOFT TISSUE BIOMECHANICS VI: SKIN PRESSURE ULCERS Chairs: Aisling Ni Annaidh, Pierre-Yves Rohan	TR09.3 SPORTS BIOMECHANICS II: FOOT AND LOWER LIMB IN SPORTS BIOMECHANICS Chairs: Antonio Prieto Veloso, Qiang Zhang
5:35pm – 6:30pm	ESB DIVERSITY IN BIOMECHANICS Chairs: Marlène Mengoni, Marta Peña Fernández & Zimi Sawacha								
6:40pm – 8:00pm	Whisky tasting & industry networking (Cromdale Hall)								
8:00pm – 10:30pm	Night in town for students (Revolution Bar, 30a Chambers St, Edinburgh EH1 1HU, United Kingdom)								



Tuesday, 2 July 2024

	Pentland Suite	Sidlaw Auditorium	Fintry Auditorium	Tinto Suite	Moorfoot Suite	Kilsyth Suite	Carrick Suite	Harris Suite	Ochil Suite
8:00am – 6:45pm	Registration								
8:30am – 9:15am	Keynote lecture: ROBOTIC ASSISTED HIP AND KNEE ARTHROPLASTY: ARE WE MAKING HEADWAY?; <i>Fares S. Haddad</i> Chairs: <i>Chloe E Scott, David Mitton</i>								
9:15am – 9:45am	Coffee break (Cromdale & Strathblane Hall)								
9:45am – 10:55am	TR01.4 MUSCULOSKELETAL BIOMECHANICS IV: LOWER EXTREMITY II Chairs: <i>Peter Varga, Andrew Phillips</i>	TR02.4 ORTHOPAEDIC IMPLANTS AND DEVICES III: LOWER LIMB DEVICES Chairs: <i>Bernardo Innocenti, Sanjay Gupta</i>	TR03.4 HARD TISSUE BIOMECHANICS III Chairs: <i>Enrico Dall'Ara, Marta Peña Fernández</i>	TR04.4 BIOMATERIALS I: BIOMATERIALS FOR MUSCULOSKELETAL TISSUES Chairs: <i>Feihu Zhao, Jennifer Paxto</i>	TR05.4 COMPUTATIONAL BIOLOGY I Chairs: <i>María Ángeles Pérez Ansón, Edoardo Borgiani</i>	TR06.4 CARDIOVASCULAR IMPLANTS AND DEVICES II: BIOMECHANICS OF VALVE IMPLANTATION Chairs: <i>Francesco Migliavacca, Elie Hachem</i>	TR07.4 TISSUE ENGINEERING II: MUSCULOSKELETAL SYSTEM I Chairs: <i>Rhiannon Grant, Ekaterina Oleinik</i>	TR08.4 NEW MATHEMATICS IN BIOMECHANICS Chairs: <i>Christian Hellmich, Maxence Lavaill</i>	TR09.4 CORPORATE MEMBERS SESSION Chairs: <i>Marlène Mengoni, Michael Crichton</i>
11:00am – 1:00pm	TR01.5 MUSCULOSKELETAL BIOMECHANICS V: SPINE AND CRANIUM Chairs: <i>Enrico Dall'Ara, Peter Varga</i>	TR02.5 COMPUTATIONAL METHODS FOR ORTHOPAEDIC APPLICATIONS III Chairs: <i>Fulvia Taddei, Alexander Synek</i>	TR03.5 HARD TISSUE BIOMECHANICS IV Chairs: <i>Alessandra Carriero, María Ángeles Pérez Ansón, Lorenzo Grassi</i>	TR04.5 SOFT TISSUE BIOMECHANICS III: SOFT TISSUES Chairs: <i>Alice Berardo, Sofia Pettenuzzo</i>	TR05.5 IN SILICO AND IN VIVO CLINICAL TRIALS Chairs: <i>Chloe E Scott, Stefaan Verbruggen</i>	TR06.5 CARDIOVASCULAR IMPLANTS AND DEVICES III: STENTS AND BALLOONS Chairs: <i>Sean McGinty, Gerhard Sommer</i>	TR07.5 COMPUTATIONAL METHODS IN TISSUE MECHANICS I Chairs: <i>Marlène Mengoni, Anthony Callanan</i>	TR08.5 DATA DRIVEN HEALTHCARE AND MACHINE LEARNING IN BIOMECHANICS Chairs: <i>Ankush Aggarwal, Chotirawee Chatpattanasiri</i>	TR09.5 CARDIOVASCULAR BIOMECHANICS III: HEART Chairs: <i>Sandra Loerakker, Estefania Peña</i>
1:00pm – 2:00pm	Lunch break & Exhibition viewing (Cromdale & Strathblane Hall)								
2:00pm – 2:45pm	POSTER SESSIONS C (Cromdale Hall) POSTER SESSIONS D (Strathblane Hall)								
2:50pm – 3:50pm	BEST DOCTORAL THESIS AWARD AND ESB EARLY CAREER AWARD Chairs: <i>David Mitton, Jérôme Noailly</i>								
3:50pm – 4:20pm	Coffee break (Cromdale & Strathblane Hall)								
4:20pm – 5:30pm		TR02.6 MECHANOBIOLOGY II: BONE - TISSUE AND ORGAN SCALE Chairs: <i>Diana Massai, Philipp J. Thurner</i>	TR03.6 HUMAN MOVEMENT I: METHODOLOGY Chairs: <i>William R. Taylor, Hans Kainz</i>	TR04.6 SOFT TISSUE BIOMECHANICS IV: EYE, BRAIN, PANCREAS, BREAST, FASCIA Chairs: <i>Hanna Isaksson, Carolina Tacchella</i>	TR05.6 COMPUTATIONAL METHODS FOR CARDIOVASCULAR APPLICATIONS + CARDIOVASCULAR IMAGING III Chairs: <i>Stéphane Avril, Vanessa Diaz</i>	TR06.6 CARDIOVASCULAR BIOMECHANICS IV: TISSUE ENGINEERING - MISC. Chairs: <i>Nele Famaey, Mirunalini Thirugnanasambandam</i>	TR07.6 TISSUE ENGINEERING III: MUSCULOSKELETAL SYSTEM II Chairs: <i>Anthony Callanan, Chiara Dazzi</i>	TR08.6 ANIMAL AND PLANT BIOMECHANICS Chairs: <i>Christian Peham, Anja Uellendahl</i>	TR09.6 CELLULAR AND MOLECULAR BIOMECHANICS I: CELL-CELL AND CELL MICROENVIRONMENT INTERACTIONS Chairs: <i>Ralph Müller, Eoin McEvoy</i>
5:40pm – 6:45pm	ESB GENERAL ASSEMBLY								
8:00pm – 11:00pm	ESB Congress dinner (National Museum of Scotland, Chambers St, Edinburgh EH1 1JF, United Kingdom)								



Wednesday, 3 July 2024

	Pentland Suite	Sidlaw Auditorium	Fintry Auditorium	Tinto Suite	Moorfoot Suite	Kilsyth Suite	Carrick Suite	Harris Suite	Ochil Suite
8:00am – 6:15pm	Registration								
8:30am – 9:15am	Keynote lecture: CLINICAL RESEARCH IN SPINE BIOMECHANICS ; <i>Wafa Skalli</i> Chairs: Richard Aspden, Enrico Dall'Ara								
9:15am – 9:45am	Coffee break (Cromdale & Strathblane Hall)								
9:45am – 10:55am	TR01.7 ORTHOPAEDIC IMPLANTS AND DEVICES IV: SPINE Chairs: Luca Cristofolini, Wafa Skalli	TR02.7 MECHANOBIOLOGY III: BONE - CELL LEVEL Chairs: Tommaso Ristori, Umberto Morbiducci	TR03.7 CARDIOVASCULAR IMPLANTS AND DEVICES IV: IMPLANTS AND BLOOD INTERACTION Chairs: Keefe Manning, Alessandro Caimi	TR04.7 SOFT TISSUE BIOMECHANICS V: MUSCLE & TENDON Chairs: Uwe Wolfram, Edward Rees	TR05.7 COMPUTATIONAL BIOLOGY II Chairs: Jérôme Noailly, Laura Baumgartner	TR06.7 COMPUTATIONAL METHODS FOR CARDIOVASCULAR APPLICATIONS IV Chairs: Nele Famaey, Michele Conti	TR07.7 DENTAL BIOMECHANICS Chairs: Aurélie Benoit, Lamia Singer	TR08.7 COMPUTATIONAL METHODS IN TISSUE MECHANICS II Chair: Jean-Marc Allain, Sam Evans	TR09.7 REPRODUCTIVE BIOMECHANICS I Chairs: Dulce Oliveira, Rita Moura
11:00am – 1:00pm	TR01.8 MUSCULOSKELETAL BIOMECHANICS VI: LOWER EXTREMITY III Chairs: Cathy Holt, Hans Kainz	TR02.8 MUSCULOSKELETAL BIOMECHANICS VII: SOFT TISSUES AND INTERFACES Chairs: Luca Cristofolini, Laura Müller	TR03.8 HUMAN MOVEMENT II: CLINICAL APPLICATIONS Chairs: Ayman Assi, Zimi Sawacha	TR04.8 CARDIOVASCULAR BIOMECHANICS V: CEREBRAL PERFUSION-CLOTTING Chairs: Behrooz Fereidoonzehad, Caitriona Lally	TR05.8 BIOMATERIALS II: POLYMERS, GELS AND CELLS Chairs: Gwendolen Reilly, Wenbo Zhan	TR06.8 COMPUTATIONAL METHODS FOR CARDIOVASCULAR APPLICATIONS V Chairs: Simona Celi, Choon Hwai Yap	TR07.8 CLINICAL APPLICATIONS AND TRANSLATIONAL RESEARCH Chairs: Richie Harinderjit Singh Gill, Philippe Moewis	TR08.8 VERIFICATION, VALIDATION AND UNCERTAINTIES QUANTIFICATION Chairs: Wouter Huberts, Sjeng Quicken	TR09.8 REHABILITATION Chairs: Mhairi Katriona MacLean, Fraje Watson
1:00pm – 2:00pm	Lunch break & Exhibition viewing (Cromdale & Strathblane Hall)								
2:00pm – 3:00pm	RESEARCH TO PRACTICE: CLINICAL TRANSLATION Chairs: Pankaj Pankaj, Peter Varga								
3:00pm – 4:00pm	ESB CLINICAL BIOMECHANICS AWARD Chairs: Marlene Mengoni, Peter Varga								
4:00pm – 4:30pm	Coffee break (Cromdale & Strathblane Hall)								
4:30pm – 5:40pm	TR01.9 MECHANOBIOLOGY IV: IN SILICO STUDIES Chairs: Zerihun Workineh, Lorenzo Grassi	TR02.9 MUSCULOSKELETAL BIOMECHANICS VIII: MUSCULOSKELETAL MODELLING WHOLE BODY II Chairs: Fabio Galbusera, Anoop Chawla	TR03.9 INJURY/IMPACT BIOMECHANICS Chairs: Sébastien Laporte, Spyros Masouros		TR05.9 CELLULAR AND MOLECULAR BIOMECHANICS II: SINGLE CELL AND INTRACELLULAR MECHANICS Chair: Vee San Cheong	TR06.9 ERGONOMICS AND OCCUPATIONAL BIOMECHANICS + HUMANOID ROBOTICS AND MECHATRONICS Chairs: Margit Gföhler, Georgios Aronis	TR07.9 RESPIRATORY BIOMECHANICS Chairs: Sam Bayat, Mona Eskandari	TR08.9 COMPUTATIONAL METHODS IN TISSUE MECHANICS III Chairs: Hanna Isaksson, Stephen J. Ferguson	TR09.9 REPRODUCTIVE BIOMECHANICS II Chairs: Vít Nováček, Ina Adler
5:45pm – 6:15pm	Closing ceremony (Pentland)								