CMBBE 2023 SPECIAL SESSIONS

Multi-scale mechanics and mechanobiology for tomorrow's cardiovascular medicine

Stéphane Avril; *MINES Saint-Étienne, France*
Nele Famaey; *KU Leuven, Belgium*
3 May 2023, 09:10 – 10:40, 12:10 – 13:10 and 15:50 – 16:50

Engineering innovation in women's health

Kristin Myers; *Columbia University, New York, USA*
Katrina Knight; *University of Pittsburgh, USA*
3 May 2023, 12:10 – 13:10 and 15:50 – 16:50

Recent advances in 3D modelling, diagnosis, and treatment of spinal deformities

Saša Ćuković; *ETH Zurich, Switzerland*
Luigi La Barbera; *Politecnico di Milano, Italy*
3 May 2023, 14:10 – 15:40

Cancer mechanobiology

Valeria Panzetta; *University of Naples Federico II, Italy*
Sabato Fusco; *University of Molise, Italy*
3 May 2023, 15:50 – 16:50

Prediction of hip strength from clinical data

Philippe Zysset; *University of Bern, Switzerland*
Bert van Rietbergen; *Eindhoven University of Technology, the Netherlands*
3 May 2023, 17:20 – 18:50

Mechanical characterization of muscle across length scales

Pierre-Yves Rohan; *Arts et Métiers Institute of Technology, Paris, France*
Benjamin Wheatley; *Bucknell University, USA*
3 May 2023, 17:20 – 18:50

Computational evaluation of orthopaedic devices

Ruth Wilcox; *University of Leeds, United Kingdom*
4 May 2023, 09:00 – 10:30

How biomechanical models can improve dental clinics?

Aurélie Benoit; *Université Paris Cité, France*
Ludger Keilig; *University of Bonn, Germany*
4 May 2023, 09:00 – 10:30 and 17:00 – 18:30

Exploring brain mechanics

Silvia Budday; *Friedrich-Alexander Universitat, Germany*
4 May 2023, 09:00 – 10:30

Multiscale mechanobiology

Juan Mora - Macias; *University of Huelva, Spain*
José Sanz - Herrera; *University of Seville, Spain*
4 May 2023, 09:00 – 10:30

Head and neck biomechanics for computer assisted medical interventions

Yohan Payan; *CNRS & Univ. Grenoble Alpes, France*
Georges Bettega; *Annecy Genevois Hospital, France*
4 May 2023, 11:00 – 12:45

Mechanistic multiphase modelling of soft tissues: in vitro/in vivo/in silico approaches toward clinical application

Giuseppe Sciumè; *University of Bordeaux, France*
Stéphane Urcun; *University of Luxembourg, Luxembourg*
4 May 2023, 11:00 – 12:45

Digital twins of different scales and biological processes: The example of liver

Lorenzo Sala; *INRIA, France*
Irène Vignon - Clementel; *INRIA, France*
4 May 2023, 11:00 – 12:45

Verification and validation of computational models

Nele Famaey; *KU Leuven, Belgium*
Sam Evans; *Cardiff University, United Kingdom*
Heleen Feharvery; *KU Leuven, Belgium*
4 May 2023, 15:00 – 16:30 and 17:00 – 18:30

Clinical applications of high-resolution CT

Philippe Zysset; *University of Bern, Switzerland*
Bert van Rietbergen; *Eindhoven University of Technology, Netherlands*
5 May 2023, 11:30 – 13:00

Computational pulmonology: Recent advances and challenges

Martin Genet; *MΞDISIM Team, Solid Mechanics Laboratory/École Polytechnique/Institut Polytechnique de Paris/CNRS & INRIA, France*
Aline Bel-Brunon; *LaMCoS, INSA-Lyon/CNRS, France*
5 May 2023, 11:30 – 13:00

Modelling and simulation of musculoskeletal mechanobiology

Areti Papastavrou; *Technical University of Nuremberg, Germany*
Julie Choisne; *University of Auckland, New Zealand*
5 May 2023, 11:30 – 13:00

3D Movement analysis and subject - specific musculoskeletal modelling

Ayman Assi; *Faculty of Medicine USJ Beirut, Lebanon / Arts et Métiers Institute of Technology, Paris, France / ESMAC President*
Hans Kainz; *University of Vienna, Austria*
5 May 2023, 14:00 – 15:45

Current challenges of in vivo subject - specific constitutive modelling of biological soft tissues

Pierre-Yves Rohan; *Arts et Métiers Institute of Technology, Paris, France*
Gerard Ateshian; *Columbia University*
5 May 2023, 14:00 – 15:45

Digital twins for personalised medicine

Julie Choisne; *University of Auckland, New Zealand*
5 May 2023, 16:00 – 17:30