

MICCAI Workshop on Computational Biomechanics for Medicine (CBM) XIII

Sunday 16 September 2018

Conference Center Seminar Room 3-4-5, Granada, Spain

08:30 – Registration

09:25 – 09:30 CBM-XIII Opening Remarks

09:30 – 11:00 CBM-XIII Session 1:

09:30-10:00: **Arnold D. Gomez, Andrew K. Knutsen, Dzung L. Pham, Philip V. Bayly, Jerry L. Prince**

Quantitative validation of MRI-based motion estimation for brain impact biomechanics

10:00-10:30: **Rébecca Bonnaire, Woo-Suck Han, Paul Calmels, Reynald Convert, Jérôme Molimard**
Parametric study of lumbar belts in the case of low back pain: effect of patients' specific characteristics

10:30-11:00: **Mahsan Bakhtiarinejad, Farshid Alambeigi, Alireza Chamani, Mathias Unberath, Harpal Khanuja, Mehran Armand**

A biomechanical study on the use of curved drilling technique for treatment of osteonecrosis of femoral head

11:00 – 11:30 Coffee Break

11:30 – 13:30 CBM-XIII Session 2:

11:30-12:30: **Keynote Speaker: Professor Renato M. Natal Jorge**

Biomechanical simulation of vaginal childbirth: the colors of the pelvic floor muscles

12:30-13:00: **Zhifan Jiang, Olivier Mayeur, Laurent Patrouix, Delphine Cirette, Jean-François Witz, Julien Dumont, Mathias Brieu**

Patient-specific modeling of pelvic system from MRI for numerical simulation: validation using a physical model

13:00-13:30: **Adam Wittek, George Bourantas, Grand Roman Joldes, Anton Khau, Konstantinos Mountris, Surya Singh, Karol Miller**

Meshless method for simulation of needle insertion into soft tissues: preliminary results

13:30 – 15:00 Lunch / Poster Session

15:00 – 16:30 CBM-XIII Session 3:

15:00-15:30: **George Bourantas, Grand Roman Joldes, Konstantinos Katsanos, George C. Kagadis, Adam Wittek, Karol Miller**

Rapid blood flow computation on digital subtraction angiography: preliminary results

15:30-16:00: **Emily J. Lam Po Tang, Amir HajiRassouliha, Martyn P. Nash, Andrew J. Taberner, Poul M. F. Nielsen, and Yusuf O. Cakmak**

Removing drift from carotid arterial pulse waveforms: a comparison of motion correction and high-pass filtering

16:00-16:30: **Amir H. Abdi, Pramit Saha, Venkata Praneeth Srungarapu, Sidney Fels**

Muscle excitation estimation in biomechanical simulation using NAF reinforcement learning

16:30 – 16:35 CBM-XIII Closing Remarks

16:35 – 17:00 Coffee