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Identification of material parameters through inverse finite element modelling / **Sam Evans, Stephane Avril**

EDITORIAL

- 1 Identification of material parameters through inverse finite element modelling / **Sam Evans, Stephane Avril**
- 3 Identification of the material parameters of soft tissues in the compressed leg / **L. Dubuis, S. Avril, J. Debayle, P. Badel**
- 13 The non-linear response of a muscle in transverse compression: assessment of geometry influence using a finite element model / **Laure-Lise Gras, David Mitton, Nathalie Crevier-Denoix, Sebastien Laporte**
- 23 Apparent Young's modulus of vertebral cortico-cancellous bone specimens / **F. El Masri, E. Sapin de Broses, K. Rhissassi, W. Skalli, D. Mitton**
- 29 Sensitivity analysis of permeability parameters of bovine nucleus pulposus obtained through inverse fitting of the nonlinear biphasic equation: effect of sampling strategy / **Philip E. Riches**
- 37 Mechanical identification of layer-specific properties of mouse carotid arteries using 3D-DIC and a hyperelastic anisotropic constitutive model / **Pierre Badel, Stephane Avril, Susan Lessner and Michael Sutton**
- 49 Identification of heterogeneous elastic properties in stenosed arteries: a numerical plane strain study / **Alexandre Franquet, Stephane Avril, Rodolphe Le Riche Pierre Badel**
- 59 Identification of capillary blood pressure levels at which capillary collapse is likely in a tissue subjected to large compressive and shear deformations / **Malka Shilo, Amit Gefen**
- 73 Quantifying the mechanical properties of human skin to optimise future microneedle device design / **R.B. Groves, S.A. Coulman, J.C. Birchall, S.L. Evans**
- 83 Dual-parameter optimisation of the elastic properties of skin / **A. Delalleau, G. Josse, J.M. Lagarde**
- 93 Importance of multiple loading scenarios for the identification of material coefficients of the human cornea / **Harald Studer, Hansjorg Riedwyl, Philippe Buchler**

REGULAR ISSUE

- 101 Development of a parametric finite element model of the proximal femur using statistical shape and density modeling / **Daniel P. Nicoletta, Todd L. Bredbenner**
- 111 Influence of the scale function on wavelet transformation of the surface electromyographic signal / **Julien Frere, Beat Gopfert, Jean Slawinski, Claire Tourny-Chollet**
- 121 FSI simulation of asymmetric mitral valve dynamics during diastolic filling / **S.K. Dahl, J. Vierendeels, J. Degroote, S. Annerel, L.R. Hellevik, B. Skallerud**

- 131 A biomechanical analysis of finger joint forces and stresses developed during common daily activities / **Kent D. Butz, Greg Merrell, Eric A. Nauman**
- 141 Automatic system for 3D reconstruction of the chick eye based on digital photographs / **Alexander Wong, Reno Genest, Naveen Chandrashekar, Vivian Choh, Elizabeth L. Irving**
- 151 Influence of fluid-flow direction on effective permeability of the vertebral end plate: an analytical model / **P. Swider, F. Accadbled, J.M. Laffosse, J. Sales de Gauzy**
- 157 A novel heart valve stent design: mechanical interaction with the aortic root / **Frederic Heim, Coralie Marchand, Bernard Durand, Nabil Chakfe**
- 167 The accuracy of active shape modelling and end-plate measurements for characterising the shape of the lumbar spine in the sagittal plane / **Ali H.A. All, Amy-beth Cowan, Jennifer S. Gregory, Richard M. Aspden and Judith R. Meakin**
- 173 A methodology to generate structured computational grids from DICOM data: application to a patient-specific abdominal aortic aneurysm (AAA) model / **Evangelos Makris, Vasileios Gkanis, Sokrates Tsangaris, Christos Housiadas**
- 185 Mechanical characterisation of the human thoracic descending aorta: experiments and modeling / **Claudio M. Garcia-Herrera, Diego J. Celentano, Marcela A. Cruchaga, Francisco J. Rojo, Jose Miguel Atienza, Gustavo V. Guinea, Jose M. Goicolea**
- 195 Simulation and study of the geometric parameters in the inguinal area and the genesis of inguinal hernias / **Gerard Fortuny, Manuel Lopez-Cano, Antonio Susin, Bias Herrera**

REGULAR ISSUE

- 203 Physical sensor difference-based method and virtual sensor difference-based method for visual and quantitative estimation of lower limb 3D gait posture using accelerometers and magnetometers / **Liu Kun, Yoshio Inoue, Kyoko Shibata**
- 211 Mechanical variables affecting balloon kyphoplasty outcome - a finite element study / **Dane Dabirrahmani, Stephan Becker, Michael Hogg, Richard Appleyard, Gamal Baroud, Mark Gillies**
- 221 Analysis of humeral head displacements from sequences of biplanar X-rays: repeatability study and preliminary results in healthy subjects / **Pierre-Yves Lagace, Fabien Billuart, Xavier Ohl, Wafa Skalli, Patrice Tetreault, Jacques de Guise and Nicola Hagemeister**
- 231 Biomechanical response of ascending thoracic aortic aneurysms: association with structural remodelling / **Dimitrios P. Sokolis, Eleftherios P. Kritharis, Athina T. Giagini, Konstantinos M. Lampropoulos, Stavroula A. Papadodima, Dimitrios C. Iliopoulos**
- 249 A hybrid static optimisation method to estimate muscle forces during muscle co-activation / **Jongsang Son, Sungjae Hwang, Youngho Kim**
- 255 3-D finite element modelling of facial soft tissue and preliminary application in orthodontics / **Si Chen, Hangdi Lou, Liang Guo, Qiguo Rong, Yi Liu, Tian-Min Xu**
- 263 Stress transfer properties of different commercial dental implants: a finite element study / **M.A. Perez, J-C. Prados-Frutos, J.A. Bea, M. Doblare**

- 275 Development of software for human muscle force estimation / **Gang Tang, Li-wei Qian, Gao-feng Wei, Hong-sheng Wang, Cheng-tao Wang**
- 285 Inertial motion capture in conjunction with an artificial neural network can differentiate the gait patterns of hemiparetic stroke patients compared with able-bodied counterparts / **C. Scheffer, T. Cloete**
- 295 One-dimensional statistical parametric mapping in Python / **Todd C. Pataky**
- 303 Deployment of self-expandable stents in aneurysmatic cerebral vessels: comparison of different computational approaches for interventional planning / **A. Bernardini, I. Larrabide, L. Petrini, G. Pennati, E. Flore, M. Kim, A.F. Frangi**
- 313 IMU-based ambulatory walking speed estimation in constrained treadmill and overground walking / **Shuozhi Yang, Qingguo Li**

- 323 Inducing occlusion effect in Y-shaped vessels using high-intensity focused ultrasound: finite element analysis and phantom validation / **Cho-Pei Jiang, Ming-Chang Wu, Yi-Syun Wu**
- 333 A mathematical model for describing the metastasis of cancer in bone tissue / **Diego Alexander Garzon-Alvarado**
- 347 Active muscle response using feedback control of a finite element human arm model / **Jonas Osth, Karin Brolin, Riender Happee**
- 363 A novel rapid prototyping and finite element method-based development of the patient-specific temporomandibular joint implant / **T.R. Deshmukh, A.M. Kuthe, S.M. Chaware, V. Bagaria, D.S. Ingole**
- 371 Time-frequency analysis of phonocardiogram signals using wavelet transform: a comparative study / **Burhan Ergen, Yetkin Tatar and Halil Ozcan Culcur**
- 383 A study of direct moxibustion using mathematical methods / **Miao Liu, Sang Ken Kauh, Sabina Lim**
- 393 Relationships between geometry and kinematic characteristics in the temporomandibular joint / **M. Mesnard, J.C. Coutant, M. Aoun, J. Morlier, M. Cid, P. Caix**
- 401 Constitutive formulation and numerical analysis of the heel pad region / **A.N. Natali, C.G. Fontanella, E.L. Carniel**
- 411 A naive Gaussian Bayes classifier for detection of mental activity in gait signature / **Deepak Joshi, A. Mishra, Sneh Anand**
- 417 Permeability study of vertebral cancellous bone using micro-computational fluid dynamics / **Jeremy CM. Teo, Swee Hin Teoh**
- 425 Segmentation of overlapping leucocyte images with phase detection and spiral interpolation / **Guanghua Gu, Dong Cui, Xiaoli Li**
- 435 Stochastic modelling of wall stresses in abdominal aortic aneurysms treated by a gene therapy / **Fai'za Mohand-Kaci, Anissa Eddhahak Ouni, Jianping Dai, Eric Allaire, Mustapha Zidi**
- 445 An extensive numerical simulation of the cephalic furrow formation in *Drosophila* embryo / **R. Allena, D. Aubry**
- 457 Fast 3D reconstruction of the lower limb using a parametric model and statistical inferences and clinical measurements calculation from biplanar X-rays / **Y. Chaibi, T. Cresson, B. Aubert, J. Hausselle, P. Neyret, O. Hauger, J.A. de Guise, W. Skalli**
- 467 Pattern classification of kinematic and kinetic running data to distinguish gender, shod/barefoot and injury groups with feature ranking / **Bjoern M. Eskofier, Martin Kraus, Jay T. Worobets, Darren J. Stefanyshyn, Benno M. Nigg**
- 475 Quasi-linear viscoelastic properties of costal cartilage using atomic force microscopy / **S. Tripathy and E.J. Berger**
- 487 A procedure to refine joint kinematic assessments: Functional Alignment / **Kevin A. Ball and Thomas M. Greiner**
- 501 Assessment of a fictitious domain method for patient-specific biomechanical modelling of press-fit orthopaedic implantation / **L.F. Kallivokas, S.-W. Na, O. Ghattas, B. Jaramaz**
- 517 An efficient algorithm for retinal blood vessel segmentation using h-maxima transform and multilevel thresholding / **Marwan D. Saleh, C. Eswaran**
- 527 Sensitivity analysis of an energetic muscle model applied at whole body level in recumbent pedaling / **M.C. Bisi, R. Stagni, G. Gnudi**

- 539 Sensitivity analysis of hip joint centre estimation based on three-dimensional CT scans / **W. Bartels, J. Vander Sloten, I. Jonkers**
- 547 Consistent formulation of the growth process at the kinematic and constitutive level for soft tissues composed of multiple constituents / **H. Schmid, L. Pauli, A. Paulus, E. Kuhl, M. Itskov**
- 563 Biomechanical analysis of foot with different foot arch heights: a finite element analysis / **Pi-Chang Sun, Shih-Liang Shih, Yu-Ling Chen, Yu-Chun Hsu, Ruei-Cheng Yang, Chen-Sheng Chen**
- 571 A mathematical model of medial collateral ligament repair: migration, fibroblast proliferation and collagen formation / **D.A. Garzon-Alvarado, R.P. Cardenas Sandoval and J.C. Vanegas Acosta**
- 585 The development, calibration and validation of a numerical total knee replacement kinematics simulator considering laxity and unconstrained flexion motions / **Ryan Willing and II Yong Kim**
- 595 Statistical finite element method for real-time tissue mechanics analysis / **Seyed Reza Mousavi, Iman Khalaji, Ali Sadeghi Naini, Kaamran Raahemifar and Abbas Samani**
- 609 Finite element analysis of stress distribution on modified retentive tips of bar clasp / **P. Oyar, C. Soyarslan, G. Can, E. Demirci**
- 615 An integrated geometric modelling framework for patient-specific computational haemodynamic study on wide-ranged vascular network / **Ryo Torii, Marie Oshima**
- 627 Feature selection based on a fuzzy complementary criterion: application to gait recognition using ground reaction forces / **S.P. Moustakidis, J.B. Theocharis, G. Giakas**
- 645 A fully implicit finite element method for bidomain models of cardiac electrophysiology / **Husnti Dal, Serdar Goktepe, Michael Kaliske, Ellen Kuhl**
- 657 Estimates of muscle function in human gait depend on how foot-ground contact is modeled / **Tim W. Dorn, Yi-Chung Lin, Marcus G. Pandy**
- 669 Importance of realistic LVAD profiles for assisted aortic simulations: evaluation of optimal outflow anastomosis locations / **Alistair Graham Brown, Yubing Shi, Andreas Arndt, Jorg Müller, Patricia Lawford, David Rodney Hose**

- 681 Prediction and prenosological diagnostics of heart diseases based on energy characteristics of acupuncture points and fuzzy logic / **Riad Al-Kasasbeh, Nikolay Korenevskiy, Florin Ionescou, Mahdi Alshamasin and Alexander Kuzmin**
- 691 ModuleSearch: finding functional modules in a protein–protein interaction network / **Guangyu Cui, Rojan Shrestha and Kyungsook Han**
- 701 Analysis of tendinous actuation in balancing the maximal fingertip force for normal and abnormal forefinger system / **A.B. Sghaier, L. Romdhane and F.B. Ouezdou**
- 711 HR-pQCT-based homogenised finite element models provide quantitative predictions of experimental vertebral body stiffness and strength with the same accuracy as μ FE models / **Dieter H. Pahr, Enrico Dall'Ara, Peter Varga and Philippe K. Zysset**
- 721 Medical image registration using fuzzy theory / **Meisen Pan, Jingtian Tang and Qi Xiong**
- 735 Neck muscle paths and moment arms are significantly affected by wrapping surface parameters / **Bethany L. Suderman, Bala Krishnamoorthy and Anita N. Vasavada**
- 745 Estimation of accuracy of patient-specific musculoskeletal modelling: case study on a post polio residual paralysis subject / **T.T. Dao, F. Marin, P. Pouletaut, F. Charleux, P. Aufaure and M.C. Ho Ba Tho**
- 753 A hybrid image processing system for X-ray images of an external fixator / **A. Aydin, T. İbrikçi and İ. D. Akçali**
- 761 Determination of typical patterns from strongly varying signals / **A. Bender and G. Bergmann**
- 771 Patient-specific modelling of pulmonary airflow using GPU cluster for the application in medical practice / **T. Miki, X. Wang, T. Aoki, Y. Imai, T. Ishikawa, K. Takase and T. Yamaguchi**
- 779 Predicting the external formation of a bone fracture callus: an optimisation approach / **D.P. Comiskey, B.J. MacDonald, W.T. McCartney, K. Synnott and J. O'Byrne**
- 787 Advanced material modelling in numerical simulation of primary acetabular press-fit cup stability / **R. Souffrant, C. Zietz, A. Fritsche, D. Kluess, W. Mittelmeier and R. Bader**
- 795 Finite element analysis of stress distribution in intact and porcelain veneer restored teeth / **M.R. Matson, H.R. Lewgoy, D.A. Barros Filho, R. Amore, A. Anido-Anido, R.C.B. Alonso, M.R.O. Carrilho and C. Anauate-Netto**
- 801 Reduction of knee range of motion during continuous passive motion due to misaligned hip joint centre / **Yoon Hyuk Kim, Kyungsoo Kim, Won Man Park and Kyoung Ho Yoon**
- 807 Computational simulation of internal bone remodelling around dental implants: a sensitivity analysis / **Istabrak Hasan, Alireza Rahimi, Ludger Keilig, Kai-Thomas Brinkmann and Christoph Bourauel**
- 815 Optimisation of the mean boat velocity in rowing / **G. Rauter, L. Baumgartner, J. Denoth, R. Riener and P. Wolf**
- 825 Development of new spacer device geometry: a CFD study (Part I) / **Ricardo F. Oliveira, Senhorinha F.C.F. Teixeira, Luís F. Silva, José C.F. Teixeira and Henedina Antunes**

- 835 Prediction of shape and internal structure of the proximal femur using a modified level set method for structural topology optimization / **Mahsa Keivan Bahari, Farzam Farahmand, Gholamreza Rouhi and Mohammad Reza Movahhedy**
- 845 A numerically validated probabilistic model of a simplified total hip replacement construct / **Loujaine Mehrez and Martin Browne**
- 859 Prediction of quantitative intrathoracic fluid volume to diagnose pulmonary oedema using LabVIEW / **Shabana Urooj, M. Khan, A.Q. Ansari, Aimé Lay-Ekuakille and Ashok K. Salhan**
- 865 Failure locus of the anterior cruciate ligament: 3D finite element analysis / **Andrew Homyk, Alexander Orsi, Story Wibby, Nicholas Yang, Hamid Nayeb-Hashemi and Paul K. Canavan**
- 875 Using topological equivalence to discover stable control parameters in biodynamic systems / **Martin L. Tanaka and Shane D. Ross**
- 885 A theoretical study of bone remodelling under PEMF at cellular level / **Yanan Wang and Qing-Hua Qin**
- 899 Postural sway parameters using a triaxial accelerometer: comparing elderly and young healthy adults / **Rigoberto Martinez-Mendez, Masaki Sekine and Toshiyo Tamura**
- 911 A reciprocal connection factor for assessing knee-joint function / **Wangdo Kim and Sean S. Kohles**
- 919 A virtual environment for learning to view during aerial movements / **Maurice R. Yeadon and Jon P. Knight**
- 925 Muscle-driven finite element simulation of human foot movements / **L.A. Spyrou and N. Aravas**
- 935 Implant–bone interface healing and adaptation in resurfacing hip replacement / **Alexander Dickinson, Andrew Taylor and Martin Browne**
- 949 Pulse transit time reveals drug kinetics on vascular changes affected by propofol / **Yuan-Chun Lan, Ching-Hui Shen, Hsung-Ming Kang and Fok-Ching Chong**
- 953 The muscle line of action in current models of the human cervical spine: a comparison with in vivo MRI data / **Rudolf Jaeger, Frieder Mauch and Bernd Markert**
- 963 Computational modelling of the natural hip: a review of finite element and multibody simulations / **Adam Stops, Ruth Wilcox and Zhongmin Jin**
- 981 Geometrical optimisation of a biochip microchannel fluidic separator / **Xiangdong Xue, Mayur K. Patel, Chris Bailey and Marc P.Y. Desmulliez**
- 993 Inverse analysis and robustness evaluation for biological structure behaviour in FE simulation: application to the liver / **Cécile Conte, Catherine Masson and Pierre-Jean Arnoux**
- 1001 Estimation of trunk mechanical properties using system identification: effects of experimental setup and modelling assumptions / **Babak Bazrgari, Maury A. Nussbaum and Michael L. Madigan**
- 1011 Letters To The Editor

- 1015 Left ventricular wall stress compendium / **L. Zhong, D.N. Ghista and R.S. Tan**
- 1043 Growing multiblock structures: a semi-automated approach to block placement for multiblock hexahedral meshing / **Austin J. Ramme, Kiran H. Shivanna, Amy J. Criswell, Nicole A. Kallemeyn, Vincent A. Magnotta and Nicole M. Grosland**
- 1053 Modelling 3D control of upright stance using an optimal control strategy / **Xingda Qu and Maury A. Nussbaum**
- 1065 An approach to determine myocardial ischemia by hidden Markov models / **Xiaoying Tang, Li Xia, Weifeng Liu, Yuhua Peng, Tianxin Gao and Yanjun Zeng**
- 1071 Biomechanical study on the edge shapes for penetrating keratoplasty / **Heow Pueh Lee and Han Zhuang**
- 1081 Computer-based assessment of movement difficulties in Parkinson's disease / **Laura M. Cunningham, Chris D. Nugent, George Moore, Dewar D. Finlay and David Craig**
- 1093 A physiology-based inverse dynamic analysis of human gait using sequential convex programming: a comparative study / **F. De Groote, B. Demeulenaere, J. Swevers, J. De Schutter and I. Jonkers**
- 1103 An assessment of swinger techniques for the playground swing oscillatory motion / **Svein O. Linge**
- 1111 Finite element and photoelastic modelling of an abdominal aortic aneurysm: a comparative study / **Anthony Callanan, Liam G. Morris and Tim M. McGloughlin**
- 1121 Simulation of creep in non-homogenous samples of human cortical bone / **Ahmet H. Ertas, Keith Winwood, Peter Zioupos and John R. Cotton**
- 1129 Verification of accuracy and validity of gait phase detection system using motion sensors for applying walking assistive FES / **Sunwoo Park, Kihong Ryu, Jungyoon Kim, Jongsang Son and Youngho Kim**
- 1137 Mineral heterogeneity has a minor influence on the apparent elastic properties of human cancellous bone: a SR μ CT-based finite element study / **Thomas Gross, Dieter H. Pahr, Françoise Peyrin and Philippe K. Zysset**
- 1145 Multiaxial mechanical behaviour of the passive ureteral wall: experimental study and mathematical characterization / **Dimitrios P. Sokolis**
- 1157 Direct numerical simulation of a 2D-stented aortic heart valve at physiological flow rates / **Y. Dimakopoulos, A.C.B. Bogaerds, P.D. Anderson, M.A. Hulsen and F.P.T. Baaijens**
- 1181 Towards an efficient and robust foot classification from pedobarographic images / **Francisco P.M. Oliveira, Andreia Sousa, Rubim Santos and João Manuel R.S. Tavares**
- 1189 Comparative analysis of numerical integration schemes of density equation for a computational model of bone remodeling / **D.A. Garzón-Alvarado and D. Linero**
- 1197 Triphasic mixture model of cell-mediated enzymatic degradation of hydrogels / **Franck J. Vernerey, Eric C. Greenwald and Stephanie J. Bryant**
- 1211 Finite element study of a tissue-engineered cartilage transplant in human tibiofemoral joint / **Ali Vahdati and Diane R. Wagner**
- 1223 A novel cross-shear metric for application in computer simulation of ultra-high molecular weight polyethylene wear / **Anthony J. Petrella, Jeffrey R. Armstrong, Peter J. Laz and Paul J. Rullkoetter**

- 1233 Role of helmet in the mechanics of shock wave propagation under blast loading conditions / **S. Ganpule, L. Gu, A. Alai and N. Chandra**
- 1245 An automatic 2D–3D image matching method for reproducing spatial knee joint positions using single or dual fluoroscopic images / **Zhonglin Zhu and Guoan Li**
- 1257 An inverse approach for the mechanical characterisation of vascular tissues via a generalised rule of mixtures / **Facundo J. Bellomo, Sergio Oller and Liz G. Nallim**
- 1263 Modelling transport of layered double hydroxide nanoparticles in axons and dendrites of cortical neurons / **A. V. Kuznetsov**
- 1273 Characterisation and simulation of an active microvalve for glaucoma / **F. Sasseti, F. A. Guarnieri, L. Garelli and M. A. Storti**
- 1281 A fast strong coupling algorithm for the partitioned fluid-structure interaction simulation of BMHVs / **Sebastiaan Annerel, Joris Degroote, Tom Claessens, Sigrid K. Dahl, Bjørn Skallerud, Leif Rune Hellevik, Peter Van Ransbeeck, Patrick Segers, Pascal Verdonck and Jan Vierendeels**
- 1313 Automated measurement of neural foramen cross-sectional area during in vivo functional movement / **William J. Anderst**
- 1323 An original clinical methodology for non-invasive assessment of pivot-shift test / **Nicola Lopomo, Stefano Zaffagnini, Cecilia Signorelli, Simone Bignozzi, Giovanni Giordano, Giulio Maria Marcheggiani Muccioli and Andrea Visani**
- 1329 Ab initio predictions of structural and elastic properties of struvite: contribution to urinary stone research / **Jacek Piechota, Jolanta Prywer and Agnieszka Torzewska**
- 1337 Biomechanical analysis of the anterior cervical fusion / **P.C. Fernandes, P.R. Fernandes, J.O. Folgado and J. Levy Melancia**
- 1347 Improved execution efficiency of model-based roentgen stereophotogrammetric analysis: simplification and segmentation of model meshes / **Ci-Bin Syu, Shang-Chih Lin, Chung-Yi Huang, Jiing-Yih Lai, Kao-Shang Shih and Kuo-Jen Chen**
- 1359 Interaction between the septum and the left (right) ventricular free wall in order to evaluate the effects on coronary blood flow: numerical simulation / **Claudio De Lazzari**
- 1369 Call for Abstracts

- 1 Editorial / **Pierre Moreno**
- 2 37th Congress of the Societe de Biomecanique
- 8 SB Senior researcher award / **Yohan Payan**

SB YOUNG INVESTIGATOR PRIZE

- 10 Nanoreinforcement of hydroxyapatite coatings on titanium for osseointegration of orthopaedic implants / **S. Facca, D. Lahiri**
- 12 Equine superficial digital flexor tendon force and axial speed of sound: a calibration method under clinical conditions / **C. Vergari, P. Pourcelot, B. Ravary-Plumiden, M. Camus, L. Holden-Douilly, S. Falala, H. Chateau, N. Crevier-Denoix**
- 14 A purely mechanical model to explore amoeboid cell migration / **R. Allena, D. Aubry**

FLUID BIOMECHANICS

- 17 Invited speaker 1 : Vincent Fleury Biofluidics of animal morphogenesis: does evolution follow stream lines? / **V. Fleury**

EVOLUTIONARY PHENOMENA: MORPHOGENESIS, GROWTH REMODELING

- 19 Effect of macroscopic loading on nanoscopic signal for cellular activity / **M. Racila, V. Serchi, J.M. Crolet**
- 21 A reactive model to predict the periprosthetic healing / **G. Khalil, P. Mansat, K. Soballe, J.E. Bechtold, P. Swider**
- 23 Numerical analysis of keloid scar in the presternal area / **J. Chambert, L. Zhao, D. Rémache, E. Jacquet**
- 25 Discrete model combined with mimetic microfluidic chips to study cell growth in porous scaffold under flow conditions / **M. Chabanon, H. Duval, O. Francois, B. Lepioufle, E. Perrin, B. Goyeau B. David**

BIOMECHANICS CELLS RHEOLOGY

- 27 Inverse problems for the determination of traction forces by cells on a substrate: a comparison of two methods / **R. Michel, V. Peschetola, B. Bedessem, J. Etienne, D. Ambrosi, A. Duperray, C. Verdier**
- 30 On the air permeability of Populus pit / **M. Capron, Ph. Tordjeman, F. Charru**
- 32 Characterisation of membrane elastic properties of capsules flowing in a square-section microfluidic channel / **X.-Q. Hu, A.-V. Salsac, E. Leclerc, D. Barthes-Biesel**
- 34 Shear-induced diffusion in a red blood cell suspension / **A. Srivastav, X. Grandchamp, G. Coupler, T. Podgorski**

SKIN AND SOFT TISSUE

- 36 Ultrasonic assessment of arterial wall elasticity: the palpography technique revisited / **F. Deleaval, S. Le Floc'h, A. Bouvier, G. Finet, G. Cloutier, J. Ohayon**
- 38 Patient-specific finite element model of the buttocks for pressure ulcer prevention - linear versus non-linear modeling / **M. Bucki, V. Luboz, C. hobos, N. Vuillerme, F. Cannard, B. Dlot, Y. Payan**
- 41 Using a 3D biomechanical model to improve a light aspiration device for in vivo soft tissue characterization / **A. Deram, V. Luboz, E. Promayon, Y. Payan**

- 44 Patient-specific numerical model of soft tissues in the compressed leg: application to six subjects / **L. Dubuis, S. Avril, J. Debayle, P. Badel**

CIRCULATORY AND RESPIRATORY BIOMECHANICS

- 46 Computational flow dynamics based on an intracranial aneurysm animal model / **D. Bresson, Z. Kharboutly, C. Mounayer, C.Y. Couquet, B. Gory, C. Legallais**
- 49 Influence of blood shear-thinning behaviour on flow dynamics in abdominal aortic aneurysm in vitro compliant model / **V. Deplano, L. Bailly, E. Bertrand**
- 53 Geometrical orifice area compared to effective orifice area of valvular mitral bioprosthesis: in vitro study / **M. Evin, C. Cuivier-Curien, D. Tanne, P. Pibarot, R. Rieu**
- 56 Flow and particles deposition in anatomically realistic airways / **T. Xiong, H. Ilmi, Y. Hoarau, P. Choquet, C. Coetz, A. Fouras, S. Dubsy, M. Braza, S. Sainlos-Brillac, F. Plouraboue, D. Lo Jacono**
- 59 Boundary conditions in arterial flows and evaluation of reflection indices / **P. Bokov, P. Flaud, J.M. Fullana, M. Rossi**
- 61 Comparing different numerical methods for solving arterial ID flows in networks / **X. Wang, O. Delestre, J.-M. Fullana, M. Saito, Y. Ikenaga, M. Matsukawa and P.-Y. Lagree**
- 63 Non-invasive method for measuring local pulse wave velocity in arteries: part II / **K.B. Abdessalem, P. Flaud, W. Shtout, R.B. Salah**
- 66 Control of brain blood flow by capillaries: a simulation study in an anatomically accurate large human vascular network / **S. Lorthois, F. Lauwers**

IMAGING: INTERACTION IMAGES / MODELS

- 69 Glottal motion and its impact on the respiratory flow / **A. Scheinherr, L. Bailly, O. Boiron, T. Legou, A. Giovanni, G. Caillibotte, M. Pichelin**
- 72 A numerical study on the influence of CT scan orientation for mandible biomechanical simulation / **H.R. Marques, A. Ramos, M. Mesnard, C. Relvas, A. Completo, J.A. Simoes**
- 74 Image-based patient-specific simulation: a computational modelling of the human left heart haemodynamics / **C. Chnafa, S. Mendez, F. Nicoud, R. Moreno, S. Nottin, I. Schuster**
- 76 3D geometrical modelling of adolescent idiopathic scoliosis / **J.C. Gesbert, Ph. Violas, B. Colobert, J.J. Dufournet, D. Vervaeke, D. Loiseau, L. Rakotomanana**
- 79 Pressure drop reconstruction in the aqueduct of sylvius from MRI acquisitions / **G. Bardan, F. Plouraboue, M. Zagzoule, O. Baledent**
- 81 Finite element vertebral model for fracture risk prediction: comparison of a full CT-based model versus two media simplified model, a preliminary study / **C. Travert, N. Vilayphiou, H. Follet, W. Skalli**
- 83 In vitro validation of non-invasive aortic compliance measurements using MRI / **M. Khalife, D. Rodriguez, L. de Rochefort, E. Durand**
- 85 Development of a model to analyse foot biomechanics using dynamic 3D surface scanning / **J. Van den Herrewegen, K. Cuppens, M. Broeckx, H. Vertommen, M. Mertens, L. Peeraer**

BIOMATERIALS AND TISSUE ENGINEERING

- 87 The effect of the thermal treatment on the stress-corrosion of nickel-titanium wires / **L. Capek, D. Capek, A. Simunek**

- 89 Nanoindentation characterisation of poly(DL-lactide)/collagen nanocomposites / **T. Suchy, S. Ryglovd, Z. Sucharda, K. Balik, J. Sepitka, J. Lukes**
- 91 The influence of sterilisation processes on the micromechanical properties of polyamide fibre-reinforced PDMS composites for orthopaedic applications / **R. Sedldcek, T. Suchy, Z. Sucharda, K. Balik, M. Sochor, J. Sepitka, J. Lukes**
- 93 Fatigue life prediction of cardiovascular stent using finite element method / **M. Azaouzi, A. Makradi, S. Belouettar**

FLUID BIOMECHANICS (POSTERS)

- 96 Variation of foot-to-foot resistance measured by body fat analysers with electrode geometry and contact area / **Sana Bousbiat, Michel Jaffrin and Men Assadi**
- 99 Numerical durability evaluation of Nitinol stent / **M. Ackermann, L. Capek**
- 102 A human skin culture system for a wound-healing model / **A. Mitbauerovd, G. Rolin, S. Robin, H. Tauzin, E. Jacquet, P. Muret, P. Humbert**
- 104 A new optical feedback interferometer for measuring red blood cell velocity distributions in individual capillaries: a feasibility study in microchannels / **L. Campagnolo, S. Roman, J. Perchoux, S. Lorthois**
- 106 Quasi-static failure properties of the human gastro-colic ligament / **O. Chebil, M. Behr, P.-J. Arnoux**
- 108 Non-invasive method for measuring local pulse wave velocity in arteries: part I / **K.B. Abdessalem, P. Flaud, W. Shtout, R.B. Salah**
- 110 Thermo-mechanics of growth and mass transfer: morphogenesis of seashells / **P. Ciarletta, L. Preziosi, G.A. Maugin**
- 113 Study of the renal cortex by light scattering / **N. Zerrari, J.-F. Paliarne, D. Mitton, S. Nicolle**
- 116 Flow dynamics characterisation of a novel perfusion-type bioreactor for bone tissue engineering / **Y. Knapp, V. Deplano, E. Bertrand**
- 120 Morphometry classification of cranial vault deformation in trigonocephaly: a preliminary study in 10 patients / **X. Pronost, P. Swider, F. Lauwers and F. J. Albert**

ANIMAL BIOMECHANICS

Invited speaker 2: Vincent Bels

- 122 Comparative approach of predatory/feeding behaviours in Tetrapods / **V. Bels, P. Legreneur**

BIOMECHANICS AND MOVEMENT ANALYSIS: METHODOLOGY OF ANIMAL BIOMECHANICS

- 124 Morphometric characterisation of an arboreal lizard (*Anolis marmoratus marmoratus*) / **P. Legreneur, H. Magnin, J. Guerlotte, E. Pelle, M.-A. Placide, V. Bels**
- 127 Use of motion trackers for equine locomotion analysis to implement a horse simulator / **S. Mager-Maury, S. Biau, S. Deslandes**
- 129 3D accelerometric assessment of the gait of dogs with cranial cruciate ligament rupture / **P. Pillard, S. Gibert, E. Viguiet**
- 132 Use of a 3D dynamometric horseshoe for the measurement of grip parameters in a horse cantering on right and left circles on two surfaces / **M. Camus, H. Chateau, L. Holden-Douilly, D. Robin, S. Falala, B. Ravary-Plumiden, P. Pourcelot, N. Crevier-Denoix**

EXPERIMENTAL APPROACH OF ANIMAL BIOMECHANICS

- 135 Prey effect on Capture Kinematics in Pogona vitticeps (Iguania, Squamata) / **L.-N. Zghikh, P. Legreneur, D. Nonclercq, C. Remy, V. Bels**
- 137 Ballistic food transport in birds: the example of Casuarius casuarius / **M. Harte, P. Legreneur, E. Pelle, M-A. Placide, V. Bels**
- 140 Evaluation of the effectiveness of bandages on restricting carpus range of motion in healthy dogs at a walk using electrogoniometry / **S. Gibert, C. Carozzo, T. Cachon, D. Fau, J.P. Genevois, E. Viguiet**
- 143 Effects of ground surface on the equine superficial digital flexor tendon loading at the walk and trot / **B. Ravary-Plumiden, P. Pourcelot, C. Vergari, L. Desquilbet, N. Crevier-Denoix**

MOVEMENT ANALYSIS AND GENERATION

- 145 Synergies between humanoid robotics and biomechanics for motion generation / **K. Mombaur**

HUMANOID ROBOTICS AND MOTION GENERATION

- 148 Simulating the effect of upper-body inertia on human balance recovery / **Zohaib Aftab, Thomas Robert, Pierre-Brice Wieber**
- 151 A machine learning approach to reaching tasks / **D. Marin, O. Sigaud**
- 153 Biomechanical versus robotic indices to assess isometric force generation capabilities / **N. Rezzoug, J. Jacquier-Bret, V. Hernandez, P. Gorce**
- 156 Generation of human-like motion on anthropomorphic systems using inverse dynamics / **L. Saab, P. Soueres, N. Mansard, J. Y. Fourquet**

MOVEMENT ANALYSIS, NEURO-MUSCULAR SYSTEMS

- 159 Comparison of muscle loadings between power and pinch grip tasks / **B. Goislard de Monsabert, J. Rossi, E. Berton, L. Vigouroux**
- 162 Effect of velocity on muscular coordination during isokinetic lifting: a preliminary study on healthy subjects / **J. Frere, A. Lemaire, A. Lai-Man, M. Ripamonti, M. Ritz, A. Rahmani**
- 165 Specific neuromuscular fatigue induced by repetitive isoload concentric knee extension / **M. Plautard, C. Cornu, G. Guilhem, A. Guevel**
- 167 Biomechanical model of the ankle to estimate the musculotendinous forces during an isometric plantar flexion / **S. Bennour, N. Zarrouk, M. Dogui, L. Romdhane, J.-P. Merlet**

MOVEMENT ANALYSIS APPLIED TO DISABILITY

- 171 Gait abnormalities in type 1 myotonic muscular dystrophy: 3D motion analysis, energy cost and surface EMG / **V. Tiffreau, C. Detrembleur, P. Van Den Bergh, A. Renders, V. Kinet, T. Lejeune**
- 173 Computation of the mechanical power of a manual wheelchair user in actual conditions: preliminary results / **C. Sauret, P. Vaslin, R. Dumas, L. Cheze, F. Lavaste**
- 175 Gait analysis of amputee people in limiting situations of daily living / **C. Villa, H. Pillet, P. Fode, J. Paysant, C. Sauret, N. Martinet, F. Lavaste**
- 177 Description and classification of the effect of hamstrings lengthening in cerebral palsy children multi-site surgery / **A. Sebsadji, N. Khouri, K. Djemal, D. Yepremian, F. Hareb, P. Hoppenot, E. Desailly**

MOVEMENT ANALYSIS AND MODELS

- 180 Dynamic footprint analysis by time-of-flight camera / **W. Samson, A. Van Hamme, S. Sanchez, L. Cheze, S. Van Sint Jan, V. Feipel**
- 183 Joint and segment coordinate systems revisited / **R. Dumas, T. Robert, V. Pomeroy, L. Cheze**
- 186 Improvement of musculoskeletal model inputs: adjustment of acceleration by dynamic optimisation / **F. Leboeuf, F. Colloud**
- 189 Froude and Strouhal dimensionless numbers to study human gait: an experimental approach / **D. Villegier, N. Delattre, B. Watier, P. Moretto**
- 191 Multi-body optimisation with deformable ligament constraints: influence of ligament geometry / **X. Gasparutto, R. Dumas, E. Jacquelin**
- 194 Feasibility of incorporating a soft tissue artefact model in multi-body optimisation / **V. Richard, V. Camomilla, L. Cheze, A. Cappozzo, R. Dumas**
- 197 Biomechanics of the human hip joint / **N. Bonneau, O. Gagey, C. Tardieu**
- 200 A non invasive protocol for the in vivo estimation of lumbar spine kinematics / **K. Ben Mansour, T.T. Dao, F. Charleux, A. Lazdry, P.P. Varga, M.C. Ho Ba Tho, F. Marin**

MOVEMENT ANALYSIS

- 203 Kinematics of human spine during hippotherapy / **T. Goldmann, M. Vilimek**
- 206 Influence of lower limbs strength on trunk flexion and extension in chronic low back pain patients / **A. Lemaire, M. Ripamonti, M. Ritz, A. Rahmani**
- 208 Validation of a volumic model to obtain personalized body segment inertial parameters for people sitting in a wheelchair / **A. Kollia, H. Pillet, J. Bascou, C. Villa, C. Sauret, F. Lavaste**
- 210 Evolutions of the wheelchair user's centre of mass and centre of pressure according to the seat fore-aft position during sprinting: a case study of an elite wheelchair tennis player / **J. Bascou, C. Sauret, H. Pillet, A. Bonnefoy, P. Thoreux, F. Lavaste**

MOVEMENT ANALYSIS AND SPORTS

- 212 Analysis of the agreement between the Fortius cycling ergometer and the PowerTap powermeter PO during time trials of 6 and 30 min / **W. Bertucci**
- 215 Evolution of pedalling biomechanics during a Wingate test for different cyclist types: a preliminary study / **J. Jeannot, W. Bertucci**
- 218 New performance indicators for BMX riders / **X. Chimentin, S. Crequy, L. Rasolofondraibe, W. Bertucci**
- 220 Comparison of motor strategy between confirmed and professional cyclists during an incremental maximal test / **J. Bernard, C. Hayot, A. Decatoire, P. Lacouture**
- 224 Experimental and computational studies of the front crawl swimming, at the end of the entry-and-stretch phase / **Mathias Samson, Anthony Bernard, Laurent David**
- 227 Does bilateral index differ between countermovement jump, drop jump and squat jump? / **E. Simoneau, A. Toumi, C. Gillet and S. Leteneur**
- 229 Method to assess the effect of the position in the starting blocks on the acceleration phase of an elite female sprinter / **J.-F. Debril, F. Durand, P. Lacouture**

- 231 On the effect of playing surfaces on lower limb intersegmental loads /
P. Rouch, X. Drevelle, L. Benouaich, P. Thoreux

MOVEMENT ANALYSIS (POSTERS)

- 234 Effects of different types of tyres and surfaces on the power output in the mountain bike field conditions: a preliminary study / **W. Bertucci, S. Rogier**
- 237 Design and prototyping of a system for ankle spasticity quantification /
S. Deslandes, A. Baudet, M. Berthelot, S. Grancher, F. Moissenet
- 240 Minimal predicted distance: a kinematic cue to investigate collision avoidance between walkers / **A.-H. Olivier, A. Marin, A. Cretual, J. Pettre**
- 243 Normal/tangential force proportion during steering under simulation condition / **Jessica Schiro, Francois Gabrielli, Philippe Pudlo, Franck Barbier, Mohamed Djemai**
- 246 Development of a 3D accelerometric device for gait analysis in dogs /
P. Pillard, S. Gibert, E. Viguier
- 250 Is the time of release during a precision throwing task, predictable? / **Clint Hansen, Nasser Rezzoug, Philippe Gorce, Brice Isableu**
- 253 Low-cost motion capture systems in practice / **Clint Hansen, Jean-Louis Honeine, David Gibas, Nasser Rezzoug, Philippe Gorce, Brice Isableu**
- 256 Quantifying standing posture during multi-joint movements / **Clint Hansen, Qin Wei, Jiann-Shing Shieh, Nasser Rezzoug, Philippe Gorce, Brice Isableu**
- 259 Quantification of facial movements by motion capture / **L. Edward, S. Dakpe, P. Feissel, B. Devauchelle, F. Marin**
- 261 New statistic analysis for BMX rider / **X. Chimentin, S. Crequy, W. Bertucci**
- 263 Simulation of muscle retraction in cerebral palsy. Validation of a decision support system for surgical lengthening of contracted muscles /
E. Desailly, A. Sebsadji, D. Yepremian, F. Hareb, N. Khouri
- 266 Atypical EMG activation patterns of the elbow extensors after complete C6 tetraplegia during isometric contractions: a case report / **S. Cremoux, J. Tallet, E. Berton, F. Dal Maso, D. Amarantini**
- 269 Analysis of revolution time variability in cycling pattern / **Th. Warlop, B. Bollens, F. Crevecoeur, Ch. Detrembleur, Th. Lejeune**

BIOMECHANICS OF IMPACTS

- 271 Passive skeletal muscle mechanical behaviour: considerations for constitutive modeling / **C.K. Simms**
- 272 Epidemiological study applied to the design of wrist guard / **C. Thoraval, R.P. Carreira, C. Barla, H. Morvan, A. Dubrulle, P. Drazetic, J.B. Delay, J. Frere**
- 274 Mechanical characterisation under cycling loading of humerus cortical bone /
R. Bry, B. Bennani, R. Delille, H. Morvan, A. Hault-Dubrulle, C. Fontaine
- 277 Geometric variability of ribs, costal cartilages and sternums from childhood to teenage / **B. Sandoz, A. Badina, S. Laporte, K. Lambot, D. Mitton, W. Skalli**
- 279 Analysis of the cortical bone thickness of human thorax based on multi-scale imaging techniques / **O. Mayeur, F. Chaari, R. Delille, P. Drazetic, E. Markiewicz**

- 281 Characterisation of the difference in fracture mechanics between children and adult cortical bone / **J.-Ph. Berteau, M. Pithioux, C. Baron, E. Gineyys, H. Follet, Ph. Lasaygues, P. Chabrand**
- 283 Quasi-static failure properties of the human gastro-colic ligament / **O. Chebil, M. Behr, P.-J. Arnoux**
- 285 Influence of the velocity on the in vitro fracture of the femoral neck for lateral compression tests / **S. Laporte, S. Guerard, S. Persohn, W. Skalli**
- 288 Cosserat 3D anisotropic models of trabecular bone from the homogenisation of the trabecular structure / **J. Goda, M. Assidi, J.F. Ganghoffer**
- 291 Links between microstructural properties of cancellous bone and its mechanical response to different strain rates / **M. Prot, D. Saletti, S. Patoffatto, V. Bousson, S. Laporte**
- 293 In vivo biomechanical response of ovine heads to shaken baby syndrome events / **B. Sandoz, J. Dutshke, Q. Liu, J. Manavis, J.W. Finnie, R. Vink, R.W.G. Anderson**
- 295 Influence of pre-crash driver posture on injury outcome: airbag interaction with human upper extremities / **A. Hault-Dubrulle, F. Robache, R. Delille, D. Lesueur, P. Drazetic, H. Morvan, G. Wavreille, X. Demondion, C. Fontaine**
- 298 Geometrical personalisation of human FE model using palpable markers on volunteers / **D. Poulard, F. Bermond, R. Dumas, K. Bruyere, S. Compigne**
- 301 Injury criteria of knee joint regarding car-pedestrian impact environments / **Fuhao Mo, Pierre Jean Arnoux, Dominique Cesari, Catherine Masson**

BIOMECHANICS OF IMPACTS (POSTERS)

- 303 Comparison of geometrical models of cranial bone samples for the identification of an apparent elastic modulus / **F. Vandebulcke, K. Bruyere, C. Masson, R. Delille, D. Lesueur, P. Drazetic**
- 306 Investigation on the interindividual differences influence on submarining in frontal crash / **C. Luet, X. Trosseille, P. Potier, G. Vallancien, P. Drazetic**
- 309 Development and validation of a bicycle helmet: assessment of head injury risk under standard impact conditions / **G. Milne, C. Deck, R.P. Carreira, Q. Allinne, R. Willinger**
- 311 On the use of Hopkinson bar-bending apparatus to study soft impact on porcine ribs / **R. Aubert, J. Pavier, N. Eches, A. Langlet, P. Bailly**
- 313 Experimental and numerical characterisation of the mechanical behaviour of the cranial bone / **J. Halgrin, S. Shiri, C. Marechal, G. Haugou, F. Bresson, T. Colard**
- 316 In vitro production and biomechanical experimental analysis of thoracolumbar burst fractures / **A. Germaneau, M. Saget, S. D'houtaud, P. Doumalin, J.-C. Dupre, F. Hesser, F. Bremand, P. Maxy, P. Rigoard**

SB/SOFMER AND CLINICAL BIOMECHANICS

- 319 Peri-operative exercise training programme for hip arthroplasty: the effect on locomotion / **F. Prince, V. Bouffard**

ERGONOMICS; ORTHOTICS AND PROSTHETICS

- 321 An optimisation approach of a new dynamic spinal device / **L. Monede Hocquard, O. Gille, M. Mesnard**

- 324 Implant fixation of novel and commercial TMJ implants / **A. Ramos, M. Mesnard, C. Relvas, A. Completo, J.A. Simoes**
- 326 Investigation of in-vivo hinge knee behaviour using a dynamic finite element model of the lower limb / **L. Zach, S. Konvickova, P. Ruzicka**
- 328 Design a total hip prosthesis with modular channel under CAD environment / **Y. Benabid, K. Benfriha, T. Chettibi, A. Aoussat**

MUSCULAR-SKELETON SYSTEMS

- 331 Parametric study of interstitial fluid flow in the bone lacuno-canalicular network / **T. Lemaire, J. Kaiser, S. Naili, V. Sansalone**
- 333 Mechanical coupling effects into a L3-L5 vertebral segment / **E. Estivalezes, J. Briot, K. Abelin-Genevois, F. Accabled, J. Sales de Gauzy, P. Swider**
- 335 Nanoindentation of intervertebral disc tissues localised by SHG imaging / **J. Sepitka, J. Lukes, L. Stanek, E. Filovd, Z. Burdikovd, J. Reznicek**
- 337 Comparison of the effect of locking vs standard screws on the mechanical properties of bone-plate constructs in a comminuted diaphyseal fracture model / **M. Verset, S. Palieme, D. Mathon, P. Swider, A. Autefage**

MUSCULAR-SKELETON SYSTEMS (POSTERS)

- 340 Measuring primary stability of cervical implant / **P. Henys, L. Capek**
- 343 A method to measure glenoid wear in 3D / **J. Ston, X. Larrea, A. Farron, D. Pioletti, A. Terrier**
- 345 Design and implementation of orthosis to improve gait of patients with hemiplegia / **Y. Benabid, T. Chettibi, A. Aoussat, K. Benfriha**
- 348 Assessing shoulder posture ergonomics thanks to a finite element analysis / **F. Abouelkhair, S. Duprey**
- 350 Biomechanical testing of the primary stability of macro and micro-roughnesses acetabular cups: a numerical and an experimental study / **S. Le Cann, A. Galland, S. Parratte, B. Rosa, J.N. Argenson, P. Chabrand**
- 353 Model of cancellous bone adaptation considering hypermineralised bone tissue / **C. Chan Yone, J.L. Milan, J.M. Rossi, J.F. Witz, M. Brieu, P. Chabrand**
- 355 Achilles tendon force and axial speed of sound: a calibration method under clinical conditions / **C. Vergari, D. Pradon, B. Ravary-Plumiden, P. Pourcelot, N. Crevier-Denoix**

ORTHOTICS AND PROSTHETICS OF LEGS

- 357 The bouncing mechanism of running in a transfemoral amputee wearing a blade prosthesis / **G. Mauroy, D. De Jaeger, J-M. Vanmarsenille, P.A. Willems**
- 360 Foot biomechanical modelling to study orthoses influence / **V. Luboz, A. Perrier, N. Vuillerme, M. Bucki, B. Diot, F. Cannard, Y. Payan**
- 363 The strain distribution for the natural and implanted hip joint articulation / **R.J.J. Duarte, A. Ramos, C. Relvas, A. Completo, J.A. Simoes**

ANALYSIS OF ARMS MOVEMENT

- 365 Relevance of skin deformation to track the scapula during forward humeral elevations / **F. Leboeuf, C. Schwartz, S. Brochard, M. Lempereur, V. Burdin and O. Remy-Neris**
- 368 Scapulo-thoracic kinematics in children: accuracy and reliability / **M. Lempereur, S. Brochard, O. Remy-Neris**

- 371 A simple method to compare body and upper limb kinetics in the course of pointing task / **James Richardson, Simon Bouisset, Clint Hansen, Christian Ribreau**

ANALYSIS OF POSTURE AND BALANCE

- 374 Determination of force platform parameters during sit-to-stand movement in elderly: a preliminary study / **F. Chorin, C. Cornu, B. Beaune, A. Rahmani**
- 377 Posture and chronic gonalgia in the elderly: contribution of osteopathic treatment / **Y. Huard**

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