

Contents

Papers

- T.E. Hill, G.T. Desmoulin and C.J. Hunter 2631 **Is vibration truly an injurious stimulus in the human spine?**
- P. Van Noten and M. Van Leemputte 2636 **Shortening amplitude affects the incomplete force recovery after active shortening in mouse soleus muscle**
- K. Khanafer and R. Berguer 2642 **Fluid–structure interaction analysis of turbulent pulsatile flow within a layered aortic wall as related to aortic dissection**
- M. Begon, F. Colloud, V. Fohanno, P. Bahuaud and T. Monnet 2649 **Computation of the 3D kinematics in a global frame over a 40 m-long pathway using a rolling motion analysis system**
- E.A. Stavropoulou, Y.F. Dafalias and D.P. Sokolis 2654 **Biomechanical and histological characteristics of passive esophagus: Experimental investigation and comparative constitutive modeling**
- M. Foumani, S.D. Strackee, R. Jonges, L. Blankevoort, A.H. Zwinderman, B. Carelsen and G.J. Streekstra 2664 ***In-vivo* three-dimensional carpal bone kinematics during flexion–extension and radio–ulnar deviation of the wrist: Dynamic motion versus step-wise static wrist positions**
- M.A. King, P.W. Kong and M.R. Yeadon 2672 **Determining effective subject-specific strength levels for forward dives using computer simulations of recorded performances**
- G. Cooper, I. Sheret, L. McMillian, K. Siliverdis, N. Sha, D. Hodgins, L. Kenney and D. Howard 2678 **Inertial sensor-based knee flexion/extension angle estimation**
- S. Portnoy, I. Siev-Ner, N. Shabshin, A. Kristal, Z. Yizhar and A. Gefen 2686 **Patient-specific analyses of deep tissue loads post transtibial amputation in residual limbs of multiple prosthetic users**
- P.S. Glazier and K. Davids 2694 **The problem of measurement indeterminacy in complex neurobiological movement systems**
- G. Krishnamurthy, A. Itoh, J.C. Swanson, W. Bothe, M. Karlsson, E. Kuhl, D. Craig Miller and N.B. Ingels Jr. 2697 **Regional stiffening of the mitral valve anterior leaflet in the beating ovine heart**
- M. Henriksen, J. Aaboe, H. Bliddal and H. Langberg 2702 **Biomechanical characteristics of the eccentric Achilles tendon exercise**
- Y. Luo, S. Ge, H. Liu and Z. Jin 2708 **Microstructure analysis and wear behavior of titanium cermet femoral head with hard TiC layer**
- H. Ishii, T. Yanagiya, H. Naito, S. Katamoto and T. Maruyama 2712 **Numerical study of ball behavior in side-foot soccer kick based on impact dynamic theory**
- I.S. Kim, Y.M. Song, T.H. Cho, J.Y. Kim, F.E. Weber and S.J. Hwang 2721 **Synergistic action of static stretching and BMP-2 stimulation in the osteoblast differentiation of C2C12 myoblasts**
- T.A. Burgers, R.S. Lakes, S. García-Rodríguez, G.R. Piller and H.-L. Ploeg 2728 **Post-yield relaxation behavior of bovine cancellous bone**
- J.M. Welch, J.A. Wade, B.M. Hillberry and C.M. Weaver 2734 **Force platform for rats measures fore and hind forces concurrently**

Continued on inside back cover



ELSEVIER

Available online at

 ScienceDirect

www.sciencedirect.com



0021-9290(20091211)42:16;1-D

Journal of Biomechanics

Affiliated with the American Society of Biomechanics, the International Society of Biomechanics, the European Society of Biomechanics, the Japanese Society for Clinical Biomechanics and the Australian and New Zealand Society of Biomechanics.

Volume 42 Number 16

11 December 2009

Continued from outside back cover

- | | | |
|---|------|--|
| M. Günther, S. Grimmer, T. Siebert and R. Blickhan | 2739 | All leg joints contribute to quiet human stance: A mechanical analysis |
| K. Liu, T. Liu, K. Shibata, Y. Inoue and R. Zheng | 2747 | Novel approach to ambulatory assessment of human segmental orientation on a wearable sensor system |
| S.V. Peelukhana, L.H. Back and R.K. Banerjee | 2753 | Influence of coronary collateral flow on coronary diagnostic parameters: An <i>in vitro</i> study |
| E. Maher, A. Creane, S. Sultan, N. Hynes, C. Lally and D.J. Kelly | 2760 | Tensile and compressive properties of fresh human carotid atherosclerotic plaques |
| R. Zhao, K. Wyss and C.A. Simmons | 2768 | Comparison of analytical and inverse finite element approaches to estimate cell viscoelastic properties by micropipette aspiration |
| X. Wang, X. Chen, Z. Tang, W. Yao, X. Liu, R. Wei, X. Wang, W. Ka, D. Sun, D. He, Z. Wen and S. Chien | 2774 | Ryanodine receptor 1 mediates Ca²⁺ transport and influences the biomechanical properties in RBCs |
| A. Malandrino, J.A. Planell and D. Lacroix | 2780 | Statistical factorial analysis on the poroelastic material properties sensitivity of the lumbar intervertebral disc under compression, flexion and axial rotation |
| P. Mc Donnell, N. Harrison, M.A.K. Liebschner and P.E. Mc Hugh | 2789 | Simulation of vertebral trabecular bone loss using voxel finite element analysis |
| H.-C. Han | 2797 | Blood vessel buckling within soft surrounding tissue generates tortuosity |
| K.D. Connolly, J.L. Ronsky, L.M. Westover, J.C. Küpper and R. Frayne | 2802 | Differences in patellofemoral contact mechanics associated with patellofemoral pain syndrome |
| Short Communications | | |
| I. Pavlov, R. Novinger and D.E. Rassier | 2808 | Sarcomere dynamics in skeletal muscle myofibrils during isometric contractions |
| D. Hawkins, C. Lum, D. Gaydos and R. Dunning | 2813 | Dynamic creep and pre-conditioning of the Achilles tendon <i>in-vivo</i> |
| K. Kobayashi, M. Sakamoto, Y. Tanabe, A. Ariumi, T. Sato, G. Omori and Y. Koga | 2818 | Automated image registration for assessing three-dimensional alignment of entire lower extremity and implant position using bi-plane radiography |
| S. Schmitt, M. Melnyk, W. Alt and A. Gollhofer | 2823 | Novel approach for a precise determination of short-time intervals in ankle sprain experiments |
| N. Sugita and M. Mitsuishi | 2826 | Specifications for machining the bovine cortical bone in relation to its microstructure |
| | 2830 | Volume 42, 2009. Author/Subject Index |

Abstracted/indexed in: *Appl. Mech. Rev.*, *Res. Alert*, *Biosis Data.*, *Bioeng. Abstr.*, *Cam. Sci. Abstr.*, *Curr. Cont./Life Sci.*, *EMBASE/Excerpta Medica*; Elsevier *BIOBASE Current Awareness in Biological Sciences*, *COMPENDEX*, *Engin. Indx Ann.*, *Ei Engin. Mtg. Eng. Ind.*, *Ergon. Abstr.*, *Excerpt. Med.*, *INSPEC Data.*, *Curr. Cont. ISI/BIOMED Database*, *MEDLINE*, *Mechanics. Oper. Res. Manage. Sci.*, *PASCAL-CNRS Data.*, *Curr. Cont. Sci. Cit. Ind.*, *Curr. Cont. SCISEARCH Data.*, *Ind. Med.*, *Review*. Also covered in the abstract and citation database SCOPUS®. Full text available on ScienceDirect®.



ISSN 0021-9290