1. Editorial Board

Pages CO2

Editorial

2. Publication ethics: redundancy in publication

Page 421
Richard A. Black

Papers

3. Finite element analysis on the biomechanical stability of open porous titanium scaffolds for large segmental bone defects under physiological load conditions  Original Research Article

Pages 422-432
Jan Wieding, Robert Souffrant, Wolfram Mittelmeier, Rainer Bader

4. The use of near-infrared light for safe and effective visualization of subsurface blood vessels to facilitate blood withdrawal in children  Original Research Article

Pages 433-440

5. Analysis of heel pad tissues mechanics at the heel strike in bare and shod conditions  Original Research Article

Pages 441-447
C.G. Fontanella, A. Forestiero, E.L. Carniel, A.N. Natali

6. Characterization of crackles from patients with fibrosis, heart failure and pneumonia  Original Research Article

Pages 448-456
Daniel F. Ponte, Raimes Moraes, Deborah C. Hizume, Adriano M. Alencar

7. Lung function measurement with multiple-breath-helium washout system  Original Research Article

Pages 457-469
J.-Y. Wang, M.E. Suddards, C.J. Mellor, J.R. Owens-Bradley

8. Mechanical model of the breast for the prediction of deformation during imaging  Original Research Article

Pages 470-478
9. **Snoring sounds variability as a signature of obstructive sleep apnea**  
   Original Research Article  
   *Pages 479-485*  
   Ali Azarbarzin, Zahra Moussavi

10. **A novel MRI compatible soft tissue indenter and fibre Bragg grating force sensor**  
    Original Research Article  
    *Pages 486-499*  
    Kevin M. Moerman, Andre M.J. Sprengers, Aart J. Nederveen, Ciaran K. Simms

11. **Validity of the Optogait photoelectric system for the assessment of spatiotemporal gait parameters**  
    Original Research Article  
    *Pages 500-504*  
    Karin Lienhard, David Schneider, Nicola A. Maffiuletti

12. **An automatic medication self-management and monitoring system for independently living patients**  
    Original Research Article  
    *Pages 505-514*  
    Corey McCall, Branden Maynes, Cliff C. Zou, Ning J. Zhang

13. **Finite element analysis of the deformation of deep veins in the lower limb under external compression**  
    Original Research Article  
    *Pages 515-523*  
    Ying Wang, Steve Downie, Nigel Wood, David Firmin, Xiao Yun Xu

14. **A model for educational simulation of the effect of oxytocin on uterine contractions**  
    Original Research Article  
    *Pages 524-531*  
    Mariana Fernandes Lobo, Luísa Ferreira Bastos, Willem L. van Meurs, Diogo Ayres-de-Campos

15. **Concept and evaluation of an endaurally insertable middle-ear implant**  
    Original Research Article  
    *Pages 532-536*  
    Erich Goll, Ernst Dalhoff, Anthony W. Gummer, Andreas Heyd, Daniela Wildenstein, Heinz Arnold, Sebastian P. Schraven, Dominik Kaltenbacher, Jonathan Schächtele, Armin Schäfer, Claus Burkhardt, Kia Tavakoli, Uwe Brenk, Andreas Pojtinger, Uwe Remer, Theo We

**Technical Notes**

16. **Filtering of surface EMG using ensemble empirical mode decomposition**  
    *Pages 537-542*  
    Xu Zhang, Ping Zhou
17. **Toward a method to simulate the process of bone ingrowth in cementless THA using finite element method**

   *Pages 543-548*
   Maria Tarala, Dennis Janssen, Nico Verdonschot

18. **Combining ultrasound-based elasticity estimation and FE models to predict 3D target displacement**

   *Pages 549-554*
   Wissam Assaad, Sarthak Misra

---

**Editorial**

19. **Validation of an accelerometer-based method to measure the use of manual wheelchairs—Editor's comment**

   *Page 555*
   Rory A. Cooper

---

**Letters to the Editor**


   *Pages 555-556*
   Sharon Eve Sonenblum, Stephen H. Sprigle


   *Pages 556-557*
   Elaine Coulter, Philippa Dall, Lynn Rochester, Jon Hasler, Malcolm Granat