Publications of Wolfgang A. Wall

Publications in this list are grouped according to

- Peer-reviewed Journal Papers
- Books, Book Chapters, etc.
- Published Lecture Notes
- (Reviewed) Proceedings Papers etc.

Peer-reviewed Journal Papers

Submitted papers:


**Accepted / published papers:**


modeling of cardiac valve tissue: Experiments, constitutive analysis and numerical investigation. *Journal of Biomechanics, 48* (2015), 4287-4296


- Popp A., Gitterle M., Gee M., Wall W.A.: A dual mortar approach for 3D finite deformation

- Gee M.W., Reeps C., Eckstein H.-H., Wall W.A.: Prestressing in finite deformation abdominal


**Books, Book Chapters, etc.**
Books (authored) and major book chapters


*... best selling technical textbook series in German language (all disciplines/publishers)

Books (edited), special journal issues and book chapters (incomplete):


• Wiechert L., Rabczuk T., Comerford A., Metzke R., Wall W.A.: Towards stresses and strains in the respiratory system. European Series in Applied and Industrial Mathematics (ESAIM) 23,


Proceedings (edited):


Wall W.A., (eds.): Energy Challenges – Germany 2050. 2nd Colloquium of the Munich School of Engineering, MSE / TUM, Garching 2012, Germany


Wall W.A., Gravemeier V., Hörmann M. (eds): 2nd GACM Colloquium on Computational
Mechanics for Young Scientists from Academia and Industry, Program/Book of Abstracts, Institute for Computational Mechanics / TUM, October 2007, Munich, Germany


Published Lecture Notes

- Technische Mechanik II. 7. Auflage, 2017
- Technische Mechanik III. 6. Auflage, 2015
- Numerische Methoden für Ingenieure, 13. Auflage, 2017
- Finite Elemente. 12. Auflage, 2017
- Nichtlineare Kontinuumsmechanik. 10. Auflage, 2016
- Biomechanik – Grundlagen und Modellbildung. 6. Auflage, 2017

(Reviewed) Proceedings Papers etc. (incomplete)


• Wall W.A., Cyron C.J., Klöppel T., Meier C., Müller K.: Coupled problems on the cellular and


- Popp A., Wall W.A.: Computational contact dynamics including multiphysics and multiscale effects. Papadrakakis M et al. (eds.), Proceedings ECCOMAS Thematic Conf. on Computational Methods in Structural Dynamics & Earthquake Engineering (COMPdyn 2011), Corfu, Greece, Mai 2011, CD-ROM: pdf 282


- Gee M.W., Wall W.A., Maier A., Reeps C., Essler M.: Correlation of biomechanics to tissue reaction in aortic aneurysms assessed by FEM and FDG-PET-CT. Nithiarasu P. et al. (eds.), Proceedings 2st Int. Conf. on Mathematical and Computational Biomedical Engineering (CMBE2011), Washington D.C., USA, March/April 2011, 129-131


- Bauer G., Gravemeier V., Wall W.A.: A 3D finite element method for the coupled numerical

• Popp A., Gitterle M., Gee M.W., Wall W.A.: An efficient dual mortar approach for finite deformation contact including frictional sliding. Proceedings 1st International Conference on Computational Contact Mechanic (ICCM09), Lecce, Italy, September 2009


• Rausch S., Wall W.A.: Parameter identification for modelling alveolar tissue on different scales. Proceedings 7th EUROMECH Solid Mechanics Conference, Lisbon, Portugal, September 2009,


• Comerford A., Wall W.A.: Nanoparticle mass transfer in a patient specific human lung. Nithiarasu A. et al. (eds.), Proceedings 1st Int. Conf. on Mathematical and Computational Biomedical Engineering (CMBE2009), Swansea, UK, June/July 2009, 94-97

• Klöppel Th., Wall W.A.: A finite element approach for static and dynamic simulations of human red blood cells. Nithiarasu P., Löhner R. (eds.), Proceedings 1st Int. Conf. on Mathematical and Computational Biomedical Engineering (CMBE2009), Swansea, UK, June/July 2009, 332-335


**Int. Conf. on Computational Methods for Coupled Problems in Science and Engineering III, COUPLED PROBLEMS 2009, Ischia, Italy, June 2009, CD-ROM: pdf p270**


• Küttler U., Wall W.A.: The dilemma of domain decomposition approaches for the interaction of structures and fully enclosed incompressible fluids. Proceedings 17th DD 17, Strobl, Austria, 2006


• Erhart T., Wall W.A., Ramm E.: Impact large deformation processes of geomaterials. Meschke G. et al. (eds.), Proceedings Intern. Conf. on Computational Modelling of Concrete Structures
(EURO-C 2006), Mayrhofen, Austria, March 2006, Taylor & Francis/Balkema Publ., 2006, 85-87


- Wall W.A., Ramm E.: Shell structures - consequences of the extreme slenderness for simulation or shells in advanced computational environment. Validation of FEM Analyses - Models and Results, NAFEMS Seminar, Wiesbaden, Germany, 2002


- Wall W.A., Mok D.P., Ramm E.: Simulation of nonlinear shells interacting with instationary


- Wall W.A., Gee M., Bischoff M., Ramm E.: Tuning of a 3D shell model in nonlinear statics and dynamics. Extended Abstract of the 20th Int. Congress of Theoretical and Applied Mechanics, Chicago, USA, 2000


