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education

- TECHNICAL UNIVERSITY OF KAISERSLAUTERN · Germany 02/2004
  Habilitation · venia legendi in Mechanics
  Theory and numerics of open system continuum thermodynamics – Spatial and material settings
  advisers Prof. Paul Steinmann · Prof. Gerhard A. Holzapfel · Prof. Christian Miehe
- UNIVERSITY OF STUTTGART · Germany 02/2000
  Ph.D. in Engineering · summa cum laude
  Numerical models for cohesive frictional materials
  advisers Prof. Ekkehard Ramm · Prof. Rene de Borst · Prof. Paul Steinmann
- UNIVERSITY OF HANNOVER · Germany 12/1995
  Dipl.-Ing.
  Modeling of single crystals and discrete polycrystals at elasto-plastic deformations
  advisers Prof. Erwin Stein · Dr. Paul Steinmann

academic experience

- ASSISTANT PROFESSOR 01/2007 – present
  Stanford University · Department of Mechanical Engineering
  Biomechanics · Continuum Mechanics · Computational Mechanics
- ASSISTANT PROFESSOR 12/2002 – 12/2006
  TU Kaiserslautern · Germany · Department of Mechanical Engineering
  Biomechanics of growth and remodeling in hard and soft tissues
- HABILITATION RESEARCHER 04/2001 – 11/2002
  TU Kaiserslautern · Germany · Department of Mechanical Engineering
  Habilitation grant on Biomechanics by German national science foundation DFG
- POSTDOCTORAL SCHOLAR 04/2000 – 03/2001
  TU Delft · The Netherlands · Faculty of Aerospace Engineering
  Theory and numerics of fluid-structure-interaction phenomena
- GRADUATE RESEARCHER 10/1996 – 03/2000
  University of Stuttgart · Germany · Faculty of Civil Engineering
  PhD grant on Softening Materials by German national science foundation DFG
- GRADUATE RESEARCHER 01/1996 – 09/1996
  University of Hannover · Germany · Faculty of Civil Engineering
  Simulation of localization phenomena in polycrystals at large deformations
- UNDERGRADUATE RESEARCHER 10/1991 – 12/1995
  University of Hannover · Germany · Faculty of Civil Engineering
  Development and implementation of material models for crystal plasticity

international collaborations

- CALIFORNIA INSTITUTE OF TECHNOLOGY 08/2005–10/2005
  Prof. Michael Ortiz · Graduate Aeronautical Laboratories
- UNIVERSITY OF CALIFORNIA, DAVIS 07/2005
  Prof. Natarajan Sukumar · Department of Civil and Environmental Engineering
- CALIFORNIA INSTITUTE OF TECHNOLOGY 02/2005–04/2005
  Prof. Michael Ortiz · Graduate Aeronautical Laboratories
- UNIVERSITY OF MICHIGAN 09/2004–10/2004
  Prof. Krishna Garikipati · Department of Mechanical Engineering
- UNIVERSITY OF MICHIGAN 03/2004–04/2004
  Prof. Krishna Garikipati · Department of Mechanical Engineering
- TECHNICAL UNIVERSITY OF DELFT · The Netherlands 08/2002–09/2002
  Prof. Rene de Borst · Faculty of Aeronautical and Aerospace Engineering
- UNIVERSITY OF PADUA · Italy 09/2001–10/2001
  Prof. Bernado Schrefler · Dipartimento di Costruzioni e Trasporti
- TECHNICAL UNIVERSITY OF DELFT · The Netherlands 08/2001
  Prof. Rene de Borst · Faculty of Aeronautical and Aerospace Engineering
- TECHNICAL UNIVERSITY OF DELFT · The Netherlands 04/2000–03/2001
  Prof. Rene de Borst · Faculty of Aeronautical and Aerospace Engineering
- TECHNICAL UNIVERSITY OF DELFT · The Netherlands 08/1997–09/1997
  Prof. Rene de Borst · Faculty of Civil Engineering and Geotechnics

reviewed journal publications

[1] SAWISCHLEWSKI, E., P. STEINMANN & E. STEIN [1996]. 'Modelling and computations of instability phenomena in multisurface plasticity', *Comp. Mech.*, Vol. 18, pp. 245–258.

[2] STEINMANN, P., E. KUHL & E. STEIN [1998]. 'Aspects of non-associated single crystal plasticity: Influence of Non-Schmid effects and localization analysis', *Int. J. Solids & Structures*, Vol. 35, pp. 4437–4456.

[3] KUHL, E. & E. RAMM [1998]. 'On the linearization of the microplane model', *Mech. Coh. Frict. Mat.*, Vol. 3, pp. 343–364.

[4] MAHNKEN, R. & E. KUHL [1999]. 'Parameter identification of gradient enhanced damage models with the finite element method', *Eur. J. Mech. / A: Solids*, Vol. 18, pp. 819–835.

[5] KUHL, E. & E. RAMM [1999]. 'Simulation of strain localization with gradient enhanced damage models', *Comp. Mat. Science*, Vol. 16, pp. 176–185.

[6] KUHL, E., E. RAMM & R. DE BORST [2000]. 'An anisotropic gradient damage model for quasi-brittle materials', *Comp. Meth. Appl. Mech. Eng.*, Vol. 183, pp. 87–103.

[7] KUHL, E., G. A. D'ADDETTA, H. J. HERRMANN & E. RAMM [2000]. 'A comparison of discrete granular material models with continuous microplane formulations', *Granular Matter*, Vol. 2, pp. 123–135.

[8] KUHL, E., E. RAMM & K. J. WILLAM [2000]. 'Failure analysis of elasto–plastic material models on different levels of observation', *Int. J. Solids & Structures*, Vol. 37, pp. 7259–7280.

[9] KUHL, E. & E. RAMM [2000]. 'Microplane modelling of cohesive frictional materials', *Eur. J. Mech. / A: Solids*, Vol. 19, pp. 121–149.

[10] KUHL, E., I. CAROL & P. STEINMANN [2001]. 'New thermodynamic approach to microplane model. Part II: Dissipation and inelastic constitutive modelling', *Int. J. Solids & Structures*, Vol. 38, pp. 2933–2952.

[11] KUHL, E., S. HULSHOFF & R. DE BORST [2003]. 'An arbitrary Lagrangian Eulerian finite–element approach for fluid–structure interaction phenomena', *Int. J. Num. Meth. Eng.*, Vol. 57, pp. 117–142.

[12] KUHL, E. & P. STEINMANN [2003]. 'On spatial and material settings of thermo–hyperelastodynamics for open systems', *Acta Mechanica*, Vol. 160, pp. 179–217.

[13] KUHL, E. & P. STEINMANN [2003]. 'Mass– and volume specific views on thermodynamics of open systems', *Proc. Roy. Soc. London*, Vol. 459, pp. 2547–2568.

[14] KUHL, E. & P. STEINMANN [2003]. 'Theory and numerics of geometrically non–linear open system mechanics', *Int. J. Num. Meth. Eng.*, Vol. 58, pp. 1593–1615.

[15] KUHL, E., A. MENZEL & P. STEINMANN [2003]. 'Computational modeling of growth: A critical review, a classification of concepts and two new consistent approaches', *Comp. Mech.*, Vol. 32, pp. 71–88.

[16] KUHL, E. & P. STEINMANN [2004]. 'Material forces in open system mechanics', *Comp. Meth. Appl. Mech. Eng.*, Vol. 193, pp. 2357–2381.

[17] KUHL, E., R. DENZER, F. J. BARTH & P. STEINMANN [2004]. 'Application of the material force method to thermo–hyperelasticity', *Comp. Meth. Appl. Mech. Eng.*, Vol. 193, pp. 3303–3326.

[18] KUHL, E. & P. STEINMANN [2004]. 'Computational modeling of healing: An application of the material force method', *Biomechanics and Modeling in Mechanobiology*, Vol. 2, pp. 187–203.

[19] KUHL, E., H. ASKES & P. STEINMANN [2004]. 'An ALE formulation based on spatial and material settings of continuum mechanics. Part 1: Generic hyperelastic formulation', *Comp. Meth. Appl. Mech. Eng.*, Vol. 193, pp. 4207–4222.

[20] ASKES, H., E. KUHL & P. STEINMANN [2004]. 'An ALE formulation based on spatial and material settings of continuum mechanics. Part 2: Classification and applications', *Comp. Meth. Appl. Mech. Eng.*, Vol. 193, pp. 4223–4245.

[21] MERGHEIM, J., E. KUHL & P. STEINMANN [2004]. 'A hybrid discontinuous Galerkin / interface method for the computational modelling of failure', *Comm.Ṅumer. Meth. Eng.*, Vol. 20, pp. 511-519.

[22] MERGHEIM, J., E. KUHL & P. STEINMANN [2004]. 'A finite element method for the computational modelling of cohesive cracks', *Int. J. Num. Meth. Eng.*, Vol. 63, pp. 276–289.

[23] ASKES, H., S. BARGMANN, E. KUHL & P. STEINMANN [2005]. 'Structural optimisation by simultaneous equilibration of spatial and material forces', *Comm. Numer. Meth. Eng.*, Vol. 21, pp. 433–442.

[24] KUHL, E., A. MENZEL & K. GARIKIPATI [2005]. 'On the convexity of transversely isotropic chain network models', *Phil. Mag.*, in press.

[25] KUHL, E. & F. BALLE [2005]. 'Computational modeling of hip replacement surgery: Total hip replacement vs. hip resurfacing', *Technische Mechanik*, Vol. 25, pp. 107–114.

[26] KUHL, E. & P. STEINMANN [2005]. 'A hyperelastodynamic ALE formulation based on referential, spatial and material settings of continuum mechanics', *Acta Mechanica*, Vol. 174, pp. 201–222.

[27] KUHL, E., K. GARIKIPATI, E. M. ARRUDA & K. GROSH [2005]. 'Remodeling of biological tissue: Mechanically induced reorientation of a transversely isotropic chain network', *J. Mech. Phys. Solids*, Vol. 53, pp. 1552–1573.

[28] HIMPEL, G., E. KUHL, A. MENZEL & P. STEINMANN [2005]. 'Computational modelling of isotropic multiplicative growth', *Comp. Mod. Eng. Sci.*, Vol. 8, pp. 119–134.

[29] KUHL, E., H. ASKES & P. STEINMANN [2005]. 'An illustration of the equivalence of the loss of ellipticity conditions in spatial and material settings of hyperelasticity', *Eur. J. Mech. / A: Solids*, in press.

[30] WELLS, G. N., E. KUHL & K. GARIKIPATI [2005]. 'A discontinuous Galerkin method for the Cahn–Hilliard equation', *J. Comp. Phys.*, submitted for publication.

[31] KUHL, E., R. MAAS, G. HIMPEL & A. MENZEL [2005]. 'Computational modeling of atherosclerosis: A first attempt towards a patient specific simulation based on computer tomography', *Biomechanics and Modeling in Mechanobiology*, accepted for publication.

[32] MERGHEIM, J., E. KUHL & P. STEINMANN [2005]. 'Towards the algorithmic treatment of 3D strong discontinuities', *Comm. Numer. Meth. Eng.*, accepted for publication.

[33] KUHL E. & D. SCHMID [2005]. 'Computational modeling of mineral growth – An application of the Cahn–Hilliard equation', *Computational Mechanics*, .

publications in conference proceedings

[1] KUHL, E., E. RAMM & R. DE BORST [1998]. 'Anisotropic gradient damage with the microplane model', *Computational Modelling of Concrete Structures*, Badgastein, Österreich, edited by R. de Borst, N. Bićanić, H. Mang & G. Meschke, Balkema, Rotterdam.

[2] DE BORST, R., M. G. D. GEERS, E. KUHL & R. H. J. PEERLINGS [1998]. 'Enhanced damage models for concrete fracture', *Computational Modelling of Concrete Structures*, Badgastein, Österreich, edited by R. de Borst, N. Bićanić, H. Mang & G. Meschke, Balkema, Rotterdam.

[3] KUHL, E., R. DE BORST & E. RAMM [1998]. 'A gradient enhancement with application to anisotropic continuum damage', *Proceedings of the 4th World Congress on Computational Mechanics*, Buenos Aires, Argentina, edited by E. Oñate & S. Idelsohn. CIMNE, Barcelona, Spain.

[4] KUHL, E., E. RAMM & K. J. WILLAM [1999]. 'Discontinuous vs. continuous modelling of failure phenomena', *Euromech Colloquium 390: Instability, Bifurcation and Localization in Fracture of Materials*, Paris, France.

[5] KUHL, E., G. A. D'ADDETTA & E. RAMM [1999]. 'Continuous vs. discontinuous modelling of concrete failure', *Proceedings of the 5th National Conference on Computational Mechanics*, Boulder, USA.

[6] KUHL E., E. RAMM & K. J. WILLAM [1999]. 'Failure analysis of elasto–plastic material models on different levels of observation', *Proceedings of the 5th US National Conference on Computational Mechanics*, Boulder, USA.

[7] D'ADDETTA, G. A., E. KUHL, E. RAMM & F. KUN [1999]. 'Micromechanical modelling of concrete cracking', *Proceedings of the European Conference on Computational Mechanics*, Munich, Germany.

[8] KUHL, E., G. A. D'ADDETTA & E. RAMM [1999]. 'Discontinuous vs. continuous modelling of failure phenomena', *Euromech Colloquium 402: Micromechanics of Fracture Processes*, Seeheim, Germany.

[9] RAMM, E., G. A. D'ADDETTA & E. KUHL [2000]. 'Geomaterials: Continuum or discontinuum, that is the question', *Proceedings of the ECCOMAS 2000*, Barcelona, Spain.

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[12] KUHL, E., S. HULSHOFF & R. DE BORST [2001] 'A comparison of coupled and partitioned solution strategies for fluid–structure interaction phenomena', *Trends in Computational Structural Mechanics*, edited by W. A. Wall, K.-U. Bletzinger & K. Schweizerhof, CIMNE, Barcelona, Spain.

[13] KUHL, E., S. HULSHOFF & R. DE BORST [2001] 'A comparison of partitioned and monolithic solution procedures for fluid–structure interaction problems', *Proceedings or the 2nd European Conference on Computational Mechanics*, Cracow, Poland.

[14] KUHL, E. & P. STEINMANN [2002] 'Geometrically nonlinear functional adaption of biological microstructures', *Proceedings of the 5th World Congress on Computational Mechanics*, edited by H. Mang, F. G. Rammerstorfer & J. Eberhardsteiner, http://wccm.tuwien.ac.at, Paper-ID: 80370, Vienna, Austria.

[15] KUHL, E. & P. STEINMANN [2002] 'Theoretical and computational aspects of bone remodeling', *The Finite Element Method in Biomedical Engineering, Biomechanics and Related Fields*, Ulm.

[16] KUHL, E. & P. STEINMANN [2003] 'Thermodynamics of open systems with application to chemomechanical problems', *Computational Modelling of Concrete Structures*, edited by N. Bićanić, R. de Borst, H. Mang & G. Meschke, Balkema, Rotterdam.

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[18] ASKES, H., E. KUHL & P. STEINMANN [2003] 'Arbitrary Lagrangian–Eulerian (ALE) mesh optimization by equilibration of discrete material forces', *Proceedings of the COMPLAS VII*, edited by E. Oñate & D. R. J. Owen, CIMNE, Barcelona, Spain.

[19] KUHL, E., H. ASKES & P. STEINMANN [2003] 'Computational spatial and material settings of continuum mechanics – An Arbitrary Lagrangian Eulerian formulation', *Proceedings of the Euromech Colloquium 445: Mechanics of Material Forces*, Kaiserslautern, edited by G. A. Maugin & P. Steinmann, Kluwer Academic Publishers.

[20] MERGHEIM, J., E. KUHL & P. STEINMANN [2003] 'Computational modelling of failure with the discontinuous Galerkin method', *Proceedings of the LUXFEM 2003*, edited by R. W. Lewis & H. Grober, Luxembourg.

[21] KUHL, E. & P. STEINMANN [2003] 'On the impact of configurational mechanics on computational mechanics', *Proceedings of the 5th ESMC*, Thessaloniki, Greece, Minisymposium organized by G. A. Maugin.

[22] KUHL, E., H. ASKES & P. STEINMANN [2003] 'An energy minimizing mesh optimization strategy based on the equilibrium of discrete spatial and material forces', *Proceedings of the ADMOS 2003*, Göteborg, Sweden, edited by N. E. Wiberg & P. Diez, CIMNE, Barcelona, Spain.

[23] MERGHEIM, J., E. KUHL & P. STEINMANN [2003] 'Computational modelling of failure with the discontinuous Galerkin method', *Proceedings of the GAMM annual meeting*, Padua.

[24] KUHL, E., A. MENZEL & P. STEINMANN [2004] 'An open system approch towards the simulation of chemomechanically induced concrete failure', *Proceedings of the FRAMCOS 5*, edited by V. C. Li & K. Willam, Vail, Colorado, USA.

[25] MERGHEIM, J., E. KUHL, A. MENZEL & P. STEINMANN [2004] 'A finite element method for the modelling of cohesive cracks', *Proceedings of the GAMM annual meeting*, Dresden.

[26] HIMPEL, G., E. KUHL, A. MENZEL & P. STEINMANN [2004] 'Theory and implementation of orthotropic materials in growing continua', *Proceedings of the GAMM annual meeting*, Dresden.

[27] ASKES, H., E. KUHL, E., S. BARGMANN & P. STEINMANN [2004] 'Dual equilibrium problem with applications to mesh optimization and structural optimization', *Proceedings of 'Advanced Problems in Mechanics 2004*, St. Petersburg, Russia.

[28] KUHL, E., A. MENZEL, K. GARIKIPATI, E. M. ARRUDA & K. GROSH [2004] 'Modeling and simulation of remodeling in soft biological tissues', *Proceedings of IUTAM Symposium on Mechanics of Biological Tissues*, edited by G. A. Holzapfel & R. W. Ogden, Graz, Austria.

[29] KUHL, E., H. ASKES & P. STEINMANN [2004] 'Spatial and material convexity analysis in nonlinear hyperelasticity', *Proceedings of 'Instabilities Across the Scales 2004'*, edited by H. B. Mühlhaus & L. J. Sluys, Cairns, Australia.

[30] HIMPEL, G., E. KUHL, A. MENZEL & P. STEINMANN [2005] 'Anisotropic growth based on a multiplicative decomposition of the deformation gradient', *Proceedings of the 1st GAMM Seminar on Continuum Biomechanics*, edited by W. Ehlers, Freudenstadt.

[31] MENZEL, A. & E. KUHL [2005] 'Fiber reorientation for transversely isotropic and orthotropic tissue adaptation', *Oberwolfach Reports*, Mini-Workshop organized by G. Saccomandi & R. W. Ogden, Oberwolfach.

[32] KUHL, E., G. HIMPEL, A. MENZEL & P. STEINMANN [2005] 'Modeling and simulation of biological growth phenomena', *Oberwolfach Reports*, Mini-Workshop organized by G. Saccomandi & R. W. Ogden, Oberwolfach.

invited lectures (selected)

- 'Mechanik lebender, biologischer Gewebe' 26/01/2006
  Invited Lecture · University of Braunschweig · Germany
- 'Form follows function - Natural design in structural mechanics' 19/01/2005
  Invited lecture · EPFL Lausanne · Switzerland
- 'Simulation von Diffusionsprozessen - Numerik der Cahn Hilliard Gleichung' 12/01/2006
  Seminar of Mechanics · University of Braunschweig · Germany
- 'Worin unterscheiden sich biologische Gewebe von technischen Strukturen?' 21/12/2005
  Invited lecture · University of Kassel · Germany
- 'Pantha psiloni – Everything grows' 23/11/2005
  Invited lecture · Max-Planck-Institute for Mathematics in the Sciences · Germany
- 'Kontinuumsmechanik offener Systeme – Smart Structures in der Natur' 18/11/2005
  Invited lecture · University of Karlsruhe · Germany
- 'On the fundamental difference between engineering materials and living tissues' 28/10/2005
  Department of Civil and Environmental Engineering · UC Davis
- 'Form follows function – Natürlich optimierte Strukturen in der Biomechanik' 29/04/2005
  Invited Lecture · University of Stuttgart · Germany
- 'Continuum biomechanics – Pantha psiloni' 07/04/2005
  Invited Lecture · ETH Zürich · Switzerland
- 'Continuum biomechanics – Pantha psiloni' 29/03/2005
  Mechanical Engineering Seminar · *Invited Lecture* · California Institute of Technology
- 'Continuum biomechanics – Everything grows' 11/03/2005
  Computational Solid Mechanics Group Seminar · California Institute of Technology

- 'Modelling and simulation of biological growth phenomena' 24/02/2005
  Mathematics of continuum biomechanics · Invited Lecture · Oberwolfach · Germany
- 'Modelling and simulation of isotropic and anisotropic biological growth' 08/01/2005
  Plasticity'05 · Keynote Lecture · Kauai
- 'Erweiterung klassischer kontinuumsmechanischer Konzepte auf die Biomechanik' 25/10/2004
  Invited Lecture · University of Hannover · Germany
- 'Spatial and material convexity analysis in nonlinear hyperelasticity' 17/09/2004
  Instabilities Across the Scales 2004 · Invited Lecture · Cairns · Australia
- 'Modeling and simulation of isotropic and anisotropic growth in biological tissues' 01/07/2004
  IUTAM Symposium on Mechanics of Biological Tissue · Invited Lecture · Graz · Austria
- 'Optimales Design - Die Natur als Vorbild' 18/06/2004
  Invited Lecture · University of Siegen · Germany
- 'Biomechanik - Modellierung und Simulation von biologischen Werktstoffen' 25/05/2004
  Invited Lecture · TU Berlin · Germany
- 'Computational modeling of isotropic growth' 02/10/2003
  Continuum Modelling of Tissue and Implants · Keynote Lecture · Göteborg · Sweden
- 'Arbitrary Lagrangian Eulerian formulation based on the coupled spatial and material setting of continuum mechanics' 30/07/2003
  7th US National Conference on Computational Mechanics · Invited Lecture · Albuquerque
- 'Theory and numerics of mechanically induced healing phenomena' 28/07/2003
  7th US National Conference on Computational Mechanics · Invited Lecture · Albuquerque
- 'Computational spatial and material settings of continuum mechanics: An Arbitrary Lagrangian Eulerian formulation' 21/05/2003
  Euromech Colloquium 445: Mechanics of Material Forces · Invited Lecture · Kaiserslautern
- 'Geometrically nonlinear functional adaption of biological microstructures' 10/07/2002
  5th World Congress on Computational Mechanics · Keynote Lecture · Wien · Austria
- 'Failure analysis for elasto–plastic material models on different levels of observation' 04/08/1999
  5th US National Conference on Computational Mechanics · Invited Lecture · Boulder
- 'Stability and bifurcation of elasto–plastic micro- vs macroscopic formulations' 11/05/1999
  Euromech Colloquium 390: Instability and Bifurcation · Invited Lecture · Paris · France

teaching expertise

- MECHANICS II SS 2006
  Undergraduate course · Engineering · TU Kaiserslautern · Germany
- LINEAR FINITE ELEMENT METHODS SS 2006
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- MECHANICS I WS 2005/2006
  Undergraduate course · Engineering · TU Kaiserslautern · Germany
- NONLINEAR FINITE ELEMENT METHODS WS 2005/2006
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- LINEAR FINITE ELEMENT METHODS SS 2005
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany

- NONLINEAR FINITE ELEMENT METHODS — WS 2004/2005
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- NONLINEAR CONTINUUM MECHANICS — SS 2004
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- LINEAR FINITE ELEMENT METHODS — SS 2004
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- LINEAR CONTINUUM MECHANICS — 2003/2004
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- NONLINEAR FINITE ELEMENT METHODS — WS 2003/2004
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- OPEN SYSTEMS AND MATERIAL GROWTH — SS 2003
  Commas · Summer School 2003 · University of Stuttgart · Germany
- LINEAR FINITE ELEMENT METHODS — SS 2003
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- LINEAR AND NONLINEAR FINITE ELEMENT METHODS — WS 2002/2003
  Lecture Series · DFG Graduate Programme 814 · TU Kaiserslautern · Germany
- NONLINEAR FINITE ELEMENT METHODS — WS 2002/2003
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- LINEAR FINITE ELEMENT METHODS — SS 2002
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- NONLINEAR FINITE ELEMENT METHODS — WS 2001/2002
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- BIOMECHANICS — SS 2001
  Graduate course · Mechanical Engineering · TU Kaiserslautern · Germany
- FINITE ELEMENTS IN STRUCTURAL MECHANICS I · teaching assistant — WS 1999/2000
  Graduate course · Civl Engineering · University of Stuttgart · Germany
- FINITE ELEMENTS IN STRUCTURAL MECHANICS II · teaching assistant — SS 1999
  Graduate course · Civl Engineering · University of Stuttgart · Germany
- FINITE ELEMENTS IN STRUCTURAL MECHANICS I · teaching assistant — WS 1998/1999
  Graduate course · Civl Engineering · University of Stuttgart · Germany
- FINITE ELEMENT METHODS · teaching assistant — SS 1996
  Graduate course · Civl Engineering · University of Hannover · Germany
- ENGINEERING MECHANICS II · tutor — SS 1993-1995
  Undergraduate course · Civl Engineering · University of Hannover · Germany
- ENGINEERING MECHANICS I · tutor — WS 1992-1995
  Undergraduate course · Civl Engineering · University of Hannover · Germany

current research group

- DIPL.-ING. JULIA MERGHEIM / DIPL.-ING. PHILIPPE JÄGER · PhD students
  Computational modelling of strong and weak discontinuities based on the Discontinuous Galerkin Method
  DFG graduate programme 814 'Engineering materials on different scales'
- DIPL.-ING. GRIETA HIMPEL · PhD student
  Theory and numerics of growth phenomena in biological tissues

- DIPL.-ING. HOLGER MEIER · PhD student
  Multiscale visualization of geomechanical localization phenomena
  DFG interational graduate school 1131 'Visualization of large data sets with applications in geospatial planning, modelling and engineering'
- DIPL.-ING. BRITTA HIRSCHBERGER · PhD student
  Simulation of failure phenomena on different scales
  DFG interational graduate school 1131 'Visualization of large data sets with applications in geospatial planning, modelling and engineering'
- DIPL. MATH. PAUL FISCHER · PhD student
  Theory and numerics of polymeric chain network models
  RLP Graduate School 'Engineering Materials and Processes'
- M.SC. THOMAS THIELEN · PhD student
  Optimization of plexiglas hip implant spacers
  joint project with the Université de Luxembourg
- CAND.-ING. KATHRIN WIPPEL · Master student
  Experimental and numerical investigations of hip implant spacers
  joint project with the Université de Luxembourg
- CAND.-ING. MARKUS KLASSEN / CAND.-ING. KRISTINA SCHNEIDER · Master students
  Simulation of dental implants
  joint project with the Dental Research Center Homburg

references

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