

Publications Ekkehard Ramm (since 2004)

2004

Manfred Bischoff, Wolfgang A. Wall, Kai-Uwe Bletzinger, Ekkehard Ramm

Models and Finite Elements for Thin-walled Structures

in Encyclopedia Of Computational Mechanics, Editors: Erwin Stein, René de Borst and Thomas J.R. Hughes. Volume 2: Solids and Structures. John Wiley & Sons, Ltd, Chichester, 59-137

Gian A. D'Addetta, Ekkehard Ramm, Stefan Diebels, Wolfgang Ehlers

A particle center based homogenization strategy for granular assemblies

Engineering Computations, (volume 21), 360-383

Ekkehard Ramm, Wolfgang A. Wall

Shell Structures - A Sensitive Interrelation between Physics and Numerics

Intern. Journal for Numerical Methods in Engineering, (volume 60), (Paper of plenary talk at WCCMV, Vienna 2002), 381-427

Volker Gravemeier, Wolfgang A. Wall, Ekkehard Ramm

A Three-level Finite Element Method for the Instationary Incompressible Navier-Stokes Equations.

Computer Methods in Applied Mechanics and Engineering, (volume 193), 1323-1366

Gian A. D'Addetta, Ekkehard Ramm

Discrete Models and Their Application in Damage Mechanics

Proc. of the 21st International Congress of Theoretical and Applied Mechanics, ICTAM 2004, Warsaw, Poland, paper 1, 15-21

Gian A. D'Addetta, Ekkehard Ramm

Discrete Models for Geomaterials

Proc. of the NATO-ARW Workshop on Multi-Physics and Multi-Scale Computer Models in Non-linear Analysis and Optimal Design of Engineering Structures under extreme Conditions, Bled, Slovenja, 1-22

Roman Kemmler, Ekkehard Ramm, Andreas Lipka

Stability and Large Deformations in Structural Optimization

Proc. Of the NATO-ARW Workshop on Multi-Physics and Multi-Scale Computer Models in Non-linear Analysis and Optimal Design of Engineering Structures under extreme Conditions, Bled, Slovenja, paper 2, 1-17

Ekkehard Ramm, Gian A. D'Addetta, Michael Leukart

From Microscopic to Macroscopic Modeling of Geomaterials

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Gian A. D'Addetta, Ekkehard Ramm

Discrete Models for Geomaterials

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Pieter A. Vermeer, Wolfgang Ehlers, H.J. Herrmann, Ekkehard Ramm (eds.)

Modelling of Cohesive-Frictional Materials.

Proc. of the 2nd International Symposium on Continuous and Discontinuous Modelling of Cohesive Frictional Materials, CDM 2004, Stuttgart, Germany, 27/28 September 2004, Balkema Publ.

Michael Gee, Ekkehard Ramm, Wolfgang A. Wall

Parallel Multilevel Solution of Nonlinear Shell Structures.

Proc. of World Conf. on Computational Mechanics (WCCM VI), Beijing, PR China

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Shape Finding of Concrete Shell Roofs

Journal of the International Association for Shell and Spatial Structures, (volume 45), 29-39

2005

Andreas Lipka, Ekkehard Ramm

Material Topology Optimization of Cellular and Solid Structures

Seminar on Shape and Topological Sensitivity Analysis LNCC, Juni 6-9, Petropolis, Brazil

Andreas Lipka, Ekkehard Ramm

A Concept for the Optimization of Metal Foam Structures

Proc. Of the 6th World Congress on Structural and Multidisciplinary Optimization WCSMO6, May 26 - June 3, Rio de Janeiro, Brazil

Andrea Hund, Ekkehard Ramm

Investigation of Constraints for Small Scale Solution within a Multiscale Model for Composites

Proc. of the International Conference on Computational Plasticity VIII, Barcelona, Spain

Andrea Hund, Ekkehard Ramm

Application of the Variational Multiscale Method to Damage of Composites

Proc. Of the 11th International Conference on Fracture, Turin, Italy

André Haufe, Horst Menrath, Ekkehard Ramm

A Nonlinear Layered Shell Formulation for RC-Structures

International Journal for Computational Civil and Structural Engineering, Issue 1, ISSN 1524-5845, 43-58

Ekkehard Ramm, Tobias Erhart, Wolfgang A. Wall

Numerical modeling of transient impact processes with large deformations and nonlinear material behavior

In: 'Computational Plasticity' Selected Papers of COMPLAS 8, (eds. E. Onate, D.J.R. Owen) Springer

Andreas Lipka, Ekkehard Ramm

Optimization of Foam Filled Structures Using Gradient Based Algorithms

Proc. of the IUTAM SYMPOSIUM: toptoptSymp2005, Topological design optimization of structures, machines and materials status and perspectives, October 26- 29 , Rungstedgaard, Copenhagen, Denmark

Ekkehard Ramm, Tobias Erhart, Wolfgang A. Wall

Numerical Modelling of Transient Impact Processes with Large Deformations and Nonlinear Material Behavior.

Proc. 8th Intern. Conf. On Computational Plasticity (COMPLAS VIII), (eds. E. Onate, D.R.J. Owen), CIMNE, Barcelona

Andrea Hund, Thomas Hettich, Ekkehard Ramm

Aspects of Microformulation and Locality Constraints within a Multiscale Model for Nonlinear Behaviour of Composites

Proc. of the 5th International Conference on Computation of Shell and Spatial Structures, Salzburg, Austria

Gian Antonio D'Addetta, Ekkehard Ramm

A Particle Model for Cohesive Frictional Materials.

Proc. 5th GRACM Int. Congress on Computational Mechanics, Limassol, Cyprus

Roman Kemmler, A. R. Lipka, Ekkehard Ramm

Large Deformation and Stability in Topology Optimization

J. Struct. and Multidisciplinary Optimization, (volume 30), 459-476

Albrecht Burmeister, H. Rahm, Ekkehard Ramm

Dynamisches Verhalten von Bauteilen unter kurzzeitigen Einwirkungen

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Large eddy simulation of turbulent incompressible flows by a three-level finite element method

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Parallel Multilevel Solution of Nonlinear Shell Structures

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A Robust Computational approach for Dry Powders under Quasi-static and Transient Impact Loadings

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M. Neumann, S.R. Tiyyagura, Wolfgang A. Wall, Ekkehard Ramm

Efficiency Aspects for Advanced Fluid Finite Element Formulations

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Stefan Hartmann, Manfred Bischoff, Ekkehard Ramm

On the Performance of 3D Elements for Shell Analysis with Non-Linear Softening Plasticity Models

Proc. of VIII Conference on Computational Plasticity (Complas 2005), September 5-7, Barcelona, Spain

2006

Thomas Hettich, Ekkehard Ramm

Interface Material Failure Modeled by the Extended Finite Element Method and Level Sets

Comp. Methods Appl. Mech. Engng., (volume 195), 4753-4767

Wolfgang A. Wall, A. Gerstenberger, P. Gamnitzer, Christiane Förster, Ekkehard Ramm

Large Deformation Fluid-Structure Interaction - Advances in ALE Methods and New Fixed Grid Approaches

In: 'Fluid-Structure-Interaction: Modelling - Simulation - Optimization', LNSCE 53, Springer

Christiane Förster, Steffen Genkinger, M. Neumann, Wolfgang A. Wall, Ekkehard Ramm

Fluid-Structure Interaction of Incompressible Flows and Slender Structures

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Dresden, Germany*

Gian Antonio D'Addetta, Benjamin Schneider, Ekkehard Ramm

Particle Models for Cohesive Frictional Materials

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Ekkehard Ramm, Christiane Förster, M. Neumann, Wolfgang A. Wall

Interaction of Shells and Membranes with Incompressible Flows

Proc. of 3rd Europ. Conf. on Comp. Mech., Lisbon 2006, 'Solids, Structures and Coupled Problems in Engineering' (eds. C.A. Mota-Soares et al.), Springer, 459-476

Tobias Erhart, Wolfgang A. Wall, Ekkehard Ramm

Robust Adaptive Remeshing Strategy for Large Deformation, Transient Impact Simulations

Int. J. Num. Meth. Engng., (volume 65), 2139-2166

Ekkehard Ramm, Andrea Hund, Thomas Hettich

A Variational Multiscale Model for Composites with Special Emphasis on the X-FEM and Level Sets

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Impact Large Deformation Processes of Geomaterials

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A Microstructure-based Simulation Environment on the Basis of an Interface Enhanced Particle Model

Granular Matter 8, 159-174

Stefan Hartmann, S. Brunssen, Barbara Wohlmuth, Ekkehard Ramm

An Energy Conserving Primal-Dual Active Set Strategy for Unilateral Non-Linear Dynamic Contact Problems

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Identification and Interpretation of Microplane Material Laws

J. Engng. Mech. (ASCE) 132/3, 295-305

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On the Geometric Conservation Law in Transient Flow Calculations on Deforming Domains

Int. J. Num. Meth. Fluids, (volume 50), 1369-1379

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Robustness and Efficiency Aspects for Computational Fluid Structure Interaction

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The Artificial Added Mass Effect in Sequential Staggered Fluid-Structure Interaction Algorithms

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Stefan Hartmann, S. Brunssen, Barbara Wohlmuth, Ekkehard Ramm

Unilateral Dynamic Contact of Thin-Walled Structures

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A Primal-Dual Active Set Strategy for Unilateral Non-Linear Dynamic Contact Problems of Thin-Walled Structures

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Preliminary Investigation for Optimization of Fiber-Reinforced Cementitious Composite Structures

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An Energy Conserving Primal-Dual Active Set Strategy for Unilateral Non-Linear Dynamic Contact Problems

Proc. of 7th World Congress on Computational Mechanics, July 16-22, Los Angeles, California, USA

2007

Stefan Hartmann, S. Brunssen, Barbara Wohlmuth, Ekkehard Ramm

Unilateral non-linear dynamic contact of thin-walled structures using a primal-dual active set strategy

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Malte von Scheven, S.R. Tiyyagura, Ekkehard Ramm, Manfred Bischoff

Efficiency Issues of Partitioned Solution in Fluid-Structure Interaction

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Locality Constraints within Multiscale Model for Nonlinear Material Behavior

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A Strong Coupling Partitioned Approach for Fluid-Structure Interaction with Free Surfaces

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Alex C. Scordelis' Great Achievements in Bridge Engineering - From Computer Programs to the Golden-Gate-Bridge Retrofit

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Thin-walled Structures Interacting with Incompressible Flows

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Thomas Cichosz, Manfred Bischoff, Stefan Hartmann, Ekkehard Ramm

Non-linear dynamic contact of thin-walled structures

Proceedings in Applied Mathematics and Mechanics, (volume 8), 10267-10268

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Forward

K.-E. Kurrer "The History of the Theory of Structures - From Arch Analysis to Computational Mechanics", Ernst & Sohn (Wiley), 5-7

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Zur Strukturdynamik - Modellbildungen und Anwendungen

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Modeling of Failure in Composites by X-FEM and Level-Sets within a Multiscale Framework

Comp. Meth. Appl. Mech. Eng. 197, 414-424

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Die Statik wird dynamisch - Modellbildungen und Anwendungen

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Stefan Hartmann, Ekkehard Ramm

A mortar based contact formulation for non-linear dynamics using dual Lagrange multipliers

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E. Ramm, A. Burmeister, L. Eitel, R. Reitingner

Widespanned Retractable Roofs of Thermal Baths in Wörishofen und Erding

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Multi-scale analysis of evolving interfaces

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Multiphase material optimization for fiber reinforced composites with strain softening

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Optimization of fiber geometry for fiber reinforced composites considering damage

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On residual based stabilisation methods for transient flow problems at small time increments

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Multiscale Methods in Computational Mechanics

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Topology optimization of cellular structures with graded porosity

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