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Articles in International Journals

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- [3] **X. Cai** and N. Bouhmala. A Unified Framework of Multi-Objective Cost Functions for Partitioning Unstructured Finite Element Meshes. *Applied Mathematical Modelling*, vol. 31, pp. 1711–1728, 2007.
- [4] **X. Cai**, **B. F. Nielsen** and **A. Tveito**. A Note on the Efficiency of the Conjugate Gradient Method for a Class of Time-Dependent Problems. *Numerical Linear Algebra with Applications*, vol. 14, pp. 459–467, 2007.

- [5] **S. Glimsdal, G. K. Pedersen, H. P. Langtangen**, V. Shuvalov and H. Dypvik. Tsunami Generation and Propagation From the Mjølner Asteroid Impact. *Meteoritics & Planetary Science*, vol. 42, pp. 1473–1493, 2007.
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- [366] **O. M. Lysaker, B. F. Nielsen, P. Grottum,** A. Abildgaard, J. G. Fjeld and K. H. Haugaa. Computer Simulations for Identifying Ischemic Heart Disease; a Validation Study, BBG-MedViz seminar at the Department of Mathematics, University of Bergen, 2008.

- [367] **O. M. Lysaker, B. F. Nielsen, P. Grottum**, A. Abildgaard, J. G. Fjeld and K. H. Haugaa. Theoretical and Practical Aspects of the Inverse Problem of Electrocardiography, Fourth International Conference on Inverse Problems: Modeling and Simulation, Turkey, 2008.
- [368] **A. E. Lovgren, S. Linge, K.-A. Mardal, V. Haughton and H. P. Langtangen**. CFD Analysis of Cerebrospinal Fluid Flow in the Cranio-Cervical Region, 21st Nordic Seminar on Computational Mechanics, Trondheim, October 16-17, 2008.
- [369] **K.-A. Mardal, K. Valen-Sendstad, O. C. Myklebust and S. Hentschel**. Scientific Computing at Simula, Workshop on Cerebral Aneurysms and Subarachnoidal Hemorrhage, January 24-26, Tromsø, 2008.
- [370] **K.-A. Mardal, B. F. Nielsen and M. S. Alnaes**. Two Steps Towards Automating Efficient Solution of Inverse Problems, International FEniCS'08 Workshop, March 5-7, Baton Rouge, 2008.
- [371] **K.-A. Mardal, K. Valen-Sendstad, O. C. Myklebust and S. Hentschel**. Blood Flow Computations at Simula, Medical Physics, University of Wisconsin, March 11, 2008.
- [372] **K.-A. Mardal**. Hemodynamics in the Circle of Willis, Institute for Computational and Applied Mathematics, Muenster, November 18, Germany, 2008.
- [373] **A. D. McCulloch**. Seminar: Multi-Scale Modeling of the Heart, MURPA eSeminar, Monash University, Melbourne, Australia, 2008.
- [374] **A. D. McCulloch**. Towards Image-Based Patient-Specific Multi-Scale Modeling of the Failing Heart, 2008 SIAM Life Sciences Conference, Session MS35, Montreal, Canada, 2008.
- [375] **A. D. McCulloch**. Multi-Scale Modeling of Cardiac Electromechanics, Biomechanical Engineering Math Seminar, Worcester Polytechnic Institute, 2008.
- [376] **A. D. McCulloch**. Physiome Research in the USA, Invited talk at ICT-BIO, The European Commission, Brussels, 2008.

- [377] **A. D. McCulloch.** *Mechanobiology of Normal and Failing Myocardium*, The Physiology Department, Oxford University, 2008.
- [378] **A. D. McCulloch.** *Emerging Role for Multi-Scale Modeling in the Biomechanical Device Industry*, 3rd ASME Frontiers in Biomechanical Devices Conference, Irvine, California, USA, 2008.
- [379] **A. D. McCulloch.** *Systems Biology and Multi-Scale Modeling of the Heart*, University of Washington, Department of Bioengineering, 2008.
- [380] **A. D. McCulloch.** *Systems Biology and Multi-Scale Modeling of the Heart*, Pacific Biocomputing Symposium, Kona, Hawaii, 2008.
- [381] **A. D. McCulloch.** *Systems Biology and Multi-Scale Modeling of the Heart*, University of Illinois, Chicago, Department of Physiology and Biophysics, 2008.
- [382] **A. D. McCulloch.** *Multi-Scale Modeling of Cardiac Mechanoenergetics*, Welcome Trust Physiome Workshop on Multi-scale Modeling of the heart, Auckland, New Zealand, 2008.
- [383] **A. D. McCulloch.** *Multi-Scale Modeling of Cardiac Electromechanics*, Symposium on Computational Physiology, Experimental Biology 2008, San Diego, 2008.
- [384] **A. D. McCulloch.** *Multi-Scale Modeling and Systems Biology of Cardiac Regulatory Mechanisms*, MEI International Symposium "Physiome and Systems Biology for Integrated Life Sciences and Predictive Medicine", San Francisco, 2008.
- [385] **A. D. McCulloch.** *Multi-Scale Modeling of the Heart*, NCRP P41 Directors, National Library of Medicine, NIH, Bethesda, Maryland, USA, 2008.
- [386] **A. D. McCulloch.** *Multi-Scale Modeling of Ventricular Electromechanics*, Cardiovascular System Dynamics Society HVIII Conference, St. Louis, USA, 2008.
- [387] **A. D. McCulloch.** *Mechanosensing and Mechanotransduction in the Myocardium*, Seminar at the Cardiology Department, Academic Hospital Maastricht, The Netherlands, 2008.

- [388] **O. C. Myklebust, S. Hentschel and K.-A. Mardal.** Patient-Specific Computational Fluid Dynamic Simulations in the Circle of Willis, 21st Nordic Seminar on Computational Mechanics, Trondheim, October 16-17, 2008.
- [389] **H. Narayanan.** Toward a Goal-Oriented Error-Controlled Solver for the Incompressible Navier-Stokes Equations, CBC workshop on Current Issues and Activities in the Robust Flow Solvers Project, Simula, December 16, 2008.
- [390] **B. F. Nielsen, O. M. Lysaker, P. Grottum, A. Tveito, A. Abildgaard, J. G. Fjeld and K. H. Haugaa.** On the Use of Computer Simulations for Identifying Ischemic Heart Disease; Theoretical and Practical Aspects, Workshop on Mathematics in Medicine/Biology, Centre of Mathematics for Applications, University of Oslo, 2008.
- [391] **B. F. Nielsen, O. M. Lysaker, P. Grottum, A. Tveito, A. Abildgaard, J. G. Fjeld and K. H. Haugaa.** Theoretical and Practical Aspects of the Inverse Problem of Electrocardiography, Institut für Mathematik und Wissenschaftliches Rechnen, Karl Franzes Universität in Graz, Austria., 2008.
- [392] **B. F. Nielsen, O. M. Lysaker, P. Grottum, A. Tveito, A. Abildgaard, J. G. Fjeld and K. H. Haugaa.** The Inverse Problem of Identifying Ischemic Heart Disease, Annual meeting of European Cardiac Simulation Group, Bologna, Italy, 2008.
- [393] **V. E. Prot.** Mitral Valve Finite Element Analysis Using Human Uniaxial Tensile Data, 8th World Congress on Computational Mechanics, Venice, 2008.
- [394] **V. E. Prot and B. H. Skallerud.** Solid Versus Membrane Finite Elements in Analysis of the Mitral Valve: a Case Study, 6th International Conference on Computation of Shell & Spatial Structures, 2008.
- [395] **B. A. P. Reif.** Turbulens - Det Siste Uløste Problemet I Klassisk Fysikk, Popular Mathematics (POPMAT), University of Oslo, 2008.
- [396] **A. Schroll.** On Computational Mathematical Modeling, The University of Southern Denmark, 2008.

- [397] **A. Schroll**. Well-Based Calibration of Geological Models, Mathematisches Forschungsinstitut Oberwolfach, 2008.
- [398] **A. Schroll**. Automatic Calibration of Depositional Models: an Inverse Problems Approach, 33rd International Geological Congress, Oslo, 2008.
- [399] R. Stresing, **M. Tutkun**, S. Lück and J. Peinke. Stochastic Analysis of Turbulence: N-Scale and N-Point Correlations in Homogeneous and Inhomogeneous Turbulent Flows, Presented at the iTi Conference on Turbulence III, Bertinoro, Italy, 2008.
- [400] **J. Sundnes**. Computational Challenges in Mathematical Models of the Heart, Norwegian University of Life Sciences, January 30, 2008.
- [401] **K. ten Tusscher**. The Role of Genome and Regulatory Network Architecture Canalization in the Evolution of Multi-Trait Polymorphism and Sympatric Speciation, Centre for Ecological and Evolutionary Synthesis at the University of Oslo, Department of Biology, 2008.
- [402] **K. ten Tusscher**. Evolutionary Biology for Non-Biologists, CBC Annual Meeting, November 5-6, 2008.
- [403] **K. ten Tusscher**. Genome and Gene Regulatory Network Canalization in the Evolution of Polymorphism and Sympatric Speciation, Symposium "Celebrating 30 years of Bioinformatics" at Utrecht University, 2008.
- [404] **M. Tutkun**. Large Scale Structures of High Reynolds Number Turbulent Boundary Layers, Workshop on Wall Bounded Shear Flows: Transition and Turbulence, Cambridge University, Isaac Newton Institute for Mathematical Science, 2008.
- [405] **K. Valen-Sendstad**, **A. Logg** and **K.-A. Mardal**. Developing Flow Solver Methodology for Patient-specific Simulation of Hemodynamics, Workshop on Finite Element Methods for Fluids and Fluid-Structure Interaction, June 5, 2008.
- [406] **M. S. Alnaes**. The Unified Form Language, International FEniCS'09 workshop, Simula, June 11-12, 2009.

- [407] M. Burger and **B. F. Nielsen**. Preconditioning in Inverse Problems, Applied Inverse Problems conference, Vienna, Austria, 2009.
- [408] **S. K. Dahl**. Fluid-Structure Interaction Simulation of Mitral Valve Dynamics in a Subject-Specific Geometry During Diastolic Filling, MI-Lab seminar; Cardiac imaging and LV mechanics, Trondheim, Norway, November 10, 2009.
- [409] **S. K. Dahl**. Fluid Structure Interaction With an User Defined Subroutine, Fluent Users Group at SINTEF / NTNU, June 3, 2009.
- [410] **S. K. Dahl**, J. Vierendeels, J. Degroote, S. Annerel, **B. H. Skallerud** and **L. R. Hellevik**. Implicit Interaction of Two Rigid Mitral Leaflets in a Partitioned Fluid-Structure Approach, MekIT'09: Fifth National Conference on Computational Mechanics, Trondheim, May 26-27, 2009.
- [411] **H. E. Fossum** and **B. A. P. Reif**. Predicting Particle Deposition in the Human Airways With RANS, MekIT'07: Fourth National Conference on Computational Mechanics, Trondheim, 2009.
- [412] **J. B. Haga**, **H. P. Langtangen**, **B. F. Nielsen** and **H. Osnes**. On the Performance of an Algebraic Multigrid Preconditioner for the Pressure Equation with Highly Discontinuous Media, MekIT'09: Fifth National Conference on Computational Mechanics, Trondheim, May 26-27, 2009.
- [413] **V. Haughton**. MRI Research and Techniques for CSF Flow, ASAP's Chiari & Syringomyelia Conference: Quest for Understanding, 2009.
- [414] **V. Haughton**. CSF Flow in the Chiari I Malformation Evaluated With PC MR and Computation Flow Design, Nordic Society of Neuroradiology Meeting, 2009.
- [415] **V. Haughton**. Imaging Evaluation of the Chiari I Malformation, Meeting and symposium of the American Syringomyelia Alliance Project, 2009.
- [416] **H. P. Langtangen**. Experience With Merging Mathematics, Numerical Methods, Physics and Programming From Day 1, Telemark College, Engineering Faculty, Porsgrunn, Norway, 2009.

- [417] **H. P. Langtangen**. Techniques for Achieving High Performance in Numerical Python Codes, Telemark College, Engineering Faculty, Porsgrunn, Norway, 2009.
- [418] **H. P. Langtangen**. Experience With Python in a Major Educational Reform, Minisymposium talk at the SIAM Conference on Computational Science and Engineering, Miami, USA, 2009.
- [419] **H. P. Langtangen**. Modeling and Simulation, Invited talk at a Tekna Labor Union seminar, 2009.
- [420] **H. P. Langtangen**. Python As an Important Tool in a Major Science Education Reform, Telemark College, Engineering Faculty, Porsgrunn, Norway, 2009.
- [421] H. Lindekleiv and **K. Valen-Sendstad**. Sex Differences in Intracranial Bifurcation Geometry and Blood Flow Velocity Result in Stronger Hemodynamic Forces Upon the Female Vessel Wall, Nordic Society of Neuroradiology Meeting, 2009.
- [422] **G. T. Lines**, **A. Tveito** and **P. Li**. Antiarrhythmic Drug Identification, Bidomain Workshop, Graz, Austria, 2009.
- [423] **S. Linge**, **A. E. Lovgren**, **K.-A. Mardal**, **V. Haughton** and **H. P. Langtangen**. Cerebrospinal Fluid Flow Investigations With Modelling and Simulation, The Chiari Institute, New York, January 14, 2009.
- [424] **S. Linge**, **A. E. Lovgren**, **K.-A. Mardal**, **V. Haughton** and **H. P. Langtangen**. Simulating Normal and Abnormal CSF Flow With Idealized Geometries, Seminar on cerebrospinal fluid flow, University of Wisconsin, Madison, January 16, 2009.
- [425] **S. Linge**, **A. E. Lovgren**, **K.-A. Mardal**, **V. Haughton** and **H. P. Langtangen**. Tonsilar Herniation - How Is the CSF Flow Influenced?, Rikshospitalet University Hospital, Oslo, Norway, June 5, 2009.
- [426] F. V. Lionetti, **A. D. McCulloch** and **S. Baden**. GPU Accelerated Electrophysiology Simulations., GPU Technology conference, San Jose, California, 2009.

- [427] F. V. Lionetti, **A. D. McCulloch** and **S. Baden**. GPU Accelerated Electrophysiology Simulations, ACM/IEEE Conference on Supercomputing (SC 2009), 2009.
- [428] **A. Logg**. FEniCS: Automated Computing, Workshop on Computational Fluid Dynamics, Simula Research Laboratory, Oslo, 2009.
- [429] **A. Logg**. Introduction to FEniCS'09, International FEniCS'09 workshop, Simula, June 11-12, 2009.
- [430] **A. Logg**. Automatic Code Generation and the FEniCS Project, Opportunities and Challenges in Computational Geodynamics, Caltech, March 30, 2009.
- [431] **A. Logg**. Automated Finite Element Discretization, Workshop on Compatible and Innovative Discretizations for Partial Differential Equations, Oslo, June 18, 2009.
- [432] **A. Logg**. Parallel Data Structures and Algorithms in DOLFIN, CBC Workshop on High-Performance Computing, Simula, June 16, 2009.
- [433] **A. Logg**. DOLFIN: Automated Finite Element Computing, ENUMATH'09, Uppsala, July 03, 2009.
- [434] **A. Logg**. Automation of Error Control With Application to FSI, AC/DC seminar series, 2009.
- [435] **O. M. Lysaker**, **B. F. Nielsen**, **P. Grottum**, K. H. Haugaa, J. G. Fjeld and A. Abildgaard. Mathematical Based Imaging of Regional Ischemia, World Congress 2009, Medical physics and biomedical engineering, 2009.
- [436] **A. E. Lovgren**, Y. Maday, E. M. Ronquist and S. Deparis. Real-Time Flow Simulation, The Chiari Institute, New York, January 14, 2009.
- [437] **A. E. Lovgren**, Y. Maday, E. M. Ronquist and S. Deparis. Real-Time Computation of CSF Flow, Seminar on cerebrospinal fluid flow, University of Wisconsin, Madison, January 16, 2009.
- [438] **A. E. Lovgren**, Y. Maday and E. M. Ronquist. The Reduced Basis Element Method: Offline-Online Decomposition in the Nonconforming,

Nonaffine Case, International Conference on Spectral and High Order Methods (ICOSAHOM), Trondheim, June 22-26, 2009.

- [439] **A. E. Lovgren**, Y. Maday and E. M. Ronquist. The Spectral Element Method Used to Assess the Quality of a Deformed Mesh, International Conference on Spectral and High Order Methods (ICOSAHOM), Trondheim, June 22-26, 2009.
- [440] **A. E. Lovgren** and S. Deparis. Stabilized Reduced Basis Approximation of the Navier-Stokes Equations in Deformed Domains, Workshop on Model Reduction of Parametrized Systems, Münster, Germany, September 16-18, 2009.
- [441] **M. M. Maleckar**. Electrotonic Coupling Between Human Atrial Myocytes and Fibroblasts Alters Excitability and Repolarization, GRC Conference - Cardiac Arrhythmia Mechanisms, 2009.
- [442] **K.-A. Mardal, A. Helgeland, S. Hentschel, H. P. Langtangen, A. Logg, S. Linge, A. E. Lovgren** and **K. Valen-Sendstad**. Computing and Medical Applications at Simula, CBC Workshop on Computational Biology with Norwegian University of Life Sciences, 2009.
- [443] **K.-A. Mardal, S. Hentschel, A. Logg** and **K. Valen-Sendstad**. Cerebral Blood Flow, Telemark College, Engineering Faculty, Porsgrunn, Norway, 2009.
- [444] **K.-A. Mardal, S. Hentschel, A. Logg** and **K. Valen-Sendstad**. Patient-Specific Hemodynamics in FEniCS, Invited talk at the minisymposium on Computational Vascular and Cardiovascular Mechanics at USNCCM, 2009.
- [445] **K.-A. Mardal, S. Hentschel, A. Helgeland, H. P. Langtangen, S. Linge, A. E. Lovgren, A. Logg** and **K. Valen-Sendstad**. Patient-Specific Simulations of Stroke and Syringomyelia, Advisory committee meeting FFI project P1112 Aerosols: Dispersion, Transport and Consequences, Nov 03, 2009.
- [446] **K.-A. Mardal, V. Haughton, S. Hentschel, H. P. Langtangen, S. Linge, A. E. Lovgren** and **K. Valen-Sendstad**. CSF Flow Modelling, CSR Flow Research Conference at University of Wisconsin, Nov 9, 2009.

- [447] **K.-A. Mardal, A. Logg, S. Hentschel, O. C. Myklebust and K. Valen-Sendstad.** Patient-Specific Hemodynamics in FEniCS, International FEniCS'09 workshop, Simula, June 11-12, 2009.
- [448] **A. Massing.** Tiny Introduction to Jabref, AC/DC seminar series, 2009.
- [449] **H. Narayanan.** An Informal Guide to Continuum Mechanics, AC/DC seminar series, 2009.
- [450] **H. Narayanan.** An Informal Guide to Continuum Mechanics, Part II, AC/DC seminar series, 2009.
- [451] **B. F. Nielsen, O. M. Lysaker, P. Grottum, K. H. Haugaa, J. G. Fjeld and A. Abildgaard.** The Inverse Ischemia Problem; Mathematical Models and Validation, Applied Inverse Problems conference, Vienna, Austria, 2009.
- [452] **B. F. Nielsen and K.-A. Mardal.** An Operator Theoretical Approach to Preconditioning Optimality Systems, Applied Inverse Problems conference, Vienna, Austria, 2009.
- [453] **B. F. Nielsen.** Recent Contributions to the Inverse Problem of Electrocardiography, Applied Inverse Problems conference, Vienna, Austria, 2009.
- [454] **B. F. Nielsen, O. M. Lysaker, P. Grottum, A. Tveito, K. H. Haugaa, A. Abildgaard, J. G. Fjeld and M. Burger.** Modelling, Mathematical Properties and Validation of the Inverse Ischemia Problem, Bidomain Workshop, Graz, Austria, 2009.
- [455] **S. H. Pettersen, A. Aamodt, O. A. Foss and B. H. Skallerud.** Subject Specific Finite Element Analysis of a Callus Distraction - a Preliminary Study, MekIT'09: Fifth National Conference on Computational Mechanics, Trondheim, May 26-27, 2009.
- [456] **H. E. Plessner, K. Austvoll and E. Nordlie.** Simulation and Visualization of the Early Early Visual System Using PyNEST and ConnPlotter, Kongsberg Vision Meeting, The Norwegian Association of Optometrists, 2009.

- [457] **M. E. Rognes**. Mixed Finite Element Methods for Linear Viscoelasticity, Compatible and innovative discretizations for PDEs. Algorithms, analysis and implementation. Norwegian Academy of Science and Letters, 2009.
- [458] **M. E. Rognes**. Efficient Assembly of $H(\text{div})$ and $H(\text{curl})$ Conforming Variational Forms, Chalmers University of Technology, 2009.
- [459] **M. E. Rognes**. Automated Error Control. Current Status and Future Ambitions, Simula seminar, 2009.
- [460] **K. Selim** and **A. Logg**. Simulating the Heart Valve Dynamics in FEniCS, MekIT'09: Fifth National Conference on Computational Mechanics, Trondheim, May 26-27, 2009.
- [461] **B. H. Skallerud** and **V. E. Prot**. Alternative Elasticity Modeling Approaches for Mitral Valve Analysis: Consequences for Stress and Deformation Prediction, 22nd Nordic Seminar on Computational Mechanics, Aalborg, Denmark, October 22-23, 2009.
- [462] **B. H. Skallerud**. Tissue Fiber Families in the Mitral Valve - Constitutive Modelling Numerical Analysis and Potential Clinical Application, 22nd Nordic Seminar on Computational Mechanics, Aalborg, Denmark, October 22-23, 2009.
- [463] **J. Sundnes**, **S. Wall** and **H. Osnes**. Computer Modeling of Cardiac Electro-Mechanics - Models and Numerical Methods, Cardiac Modeling seminar, Simula Research Laboratory, 2009.
- [464] **J. Sundnes**. Multiscale Models of Physiological Systems, Course "Bioinformatics for molecular biology", University of Oslo, 2009.
- [465] **J. Sundnes**, **S. Wall** and **H. Osnes**. Simulation of Strongly Coupled Electro-Mechanics in an Infarcted Left Ventricle, Bidomain Workshop, Graz, Austria, 2009.
- [466] **M. Tutkun**, **B. A. P. Reif**, P. B. V. Johansson and J. Werne. Proper Orthogonal Decomposition of Velocity and Scalar Fields in Shear Generated Turbulence, MekIT'09: Fifth National Conference on Computational Mechanics, Trondheim, May 26-27, 2009.

- [467] **D. Unat** and **S. Baden**. Optimizations of Common Scientific Kernels on GPU, Early Adopters PhD Workshop: Building the Next Generation of Application Scientists, Supercomputing Conference 2009, Portland, 2009.
- [468] **K. Valen-Sendstad**, **M. Mortensen**, **H. P. Langtangen**, **B. A. P. Reif** and **K.-A. Mardal**. Implementing a $k - \epsilon$ Turbulence Model in the FEniCS Finite Element Programming Environment, MekIT'09: Fifth National Conference on Computational Mechanics, Trondheim, May 26-27, 2009.
- [469] **K. Valen-Sendstad**, **K.-A. Mardal** and **A. Logg**. Simulation Methodology for Bioflows, Advisory committee meeting FFI project P1112 Aerosols: Dispersion, Transport and Consequences, May 05, 2009.
- [470] M. Vartdal and **B. A. P. Reif**. Numerical Modeling of Aerosol Dispersion Inside a Rotating Aerosol Chamber, MekIT'09: Fifth National Conference on Computational Mechanics, Trondheim, May 26-27, 2009.
- [471] **T. Vik** and **B. A. P. Reif**. Large Eddy Simulations of the Evaporation From a Liquid Pool Beneath a Turbulent Air Flow, MekIT'09: Fifth National Conference on Computational Mechanics, Trondheim, May 26-27, 2009.
- [472] **W. Wei**, **S. R. Clark**, **X. Cai** and **A. M. Bruaset**. Parallel Simulation of Dual Lithology Sedimentation, NOTUR 2009 conference, Trondheim, May 18-20, 2009.
- [473] **I. Wilbers**, **H. P. Langtangen** and **AA. Odegaard**. Using Cython to Speed Up Numerical Python Programs, MekIT'09: Fifth National Conference on Computational Mechanics, Trondheim, May 26-27, 2009.
- [474] **E. M. M. Wingstedt** and **B. A. P. Reif**. Unsteady RANS Modelling of Pollutant Dispersion in an Idealized Urban Area, MekIT'09: Fifth National Conference on Computational Mechanics, Trondheim, May 26-27, 2009.
- [475] **O. Al-Khayat**. A Lumped Particle Modeling Framework for the Transport of Particles, CBC Workshop on Tsunami Modeling, June 3-4, 2010.

- [476] **O. Al-Khayat**. A Multiscale Lumped Particle Modeling Framework for the Simulation of Turbidity Currents, Poster at the 7th EGU General Assembly, vol 12, Vienna, 2010.
- [477] **S. Baden**. Technological Disruption: Opportunities for Change, International FEniCS'10 workshop, KTH, Stockholm, 2010.
- [478] **S. Baden**. GPUs: Supercomputers for All, Opportunities and Folklore, Section for Scientific Computing, Technical University of Denmark, 2010.
- [479] **S. Baden**. GPUs: Supercomputers for All, Opportunities and Folklore, PDC/CSC, KTH, Stockholm, 2010.
- [480] H. C. Bender, A. K. Thurmond, J. Skogseid and **S. R. Clark**. Microplate Modeling of the Afar Depression Using 4D Lithospheric Model (4DLM) and Splates: Implications for Development of Plate Boundaries, Geological Society of America, 2010.
- [481] A. Blechingberg. Computational Simulations of the Shaken Baby Syndrome - History and Challenges, AC/DC seminar series, 2010.
- [482] **X. Cai**, **D. Unat** and **S. Baden**. Detailed Numerical Analyses of the Aliev-Panfilov Model on GPGPU, Para 2010: State of the Art in Scientific and Parallel Computing in Reykjavik on June 6-9, 2010.
- [483] **X. Cai**. Parallel Programming Using Python, CBC Seminar on advanced use of Python programming language, 2010.
- [484] **S. K. Dahl** and **B. H. Skallerud**. Effect of Mitral Valve Shape on Flow Dynamics During Left Ventricular Contraction, World Congress in Biomechanics, Singapore, 2010.
- [485] **S. K. Dahl**. Mittralklaffens Form I Systolen, Rikshospitalet University Hospital, Oslo, Norway, March, 2010.
- [486] **S. Glimsdal**, C. B. Harbitz, **G. K. Pedersen**, **R. E. Bredesen**, A. Jensen and F. Lovholt. Propagation and Run-Up of Rockslide Generated Tsunamies in Complex Fjord Systems, EGU General Assembly, Geophysical Research Abstracts (European Geoscience Union), Copernicus, GmbH, 2010.

- [487] **V. Haughton**. On Cerebrospinal Fluid Flow, CBC Workshop on Cerebrospinal Fluid Flow in the Brain and Spinal Canal - Clinical, Experimental and Mathematical Models and Problems, Simula, May 28, 2010.
- [488] **B. Kehlet**. Analysis and Implementation of High-Precision Finite Element Methods for Ordinary Differential Equations With Application to the Lorenz System, AC/DC seminar series, 2010.
- [489] **B. Kehlet**. Meshbuilder Brainstorming, AC/DC seminar series, 2010.
- [490] **B. Kehlet** and **A. Logg**. A Reference Solution for the Lorenz System on $[0, 1000]$, 8th International Conference of Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, September 19-25, 2010.
- [491] **H. P. Langtangen**. Computational Modeling of Huge Tsunamis From Asteroid Impacts, Computational Geoscience Seminar, 2010.
- [492] **A. Logg**. Nya Verktyg, Nyy Möjligheter, Sveriges matematiklärarförening (SMaL), 2010.
- [493] **A. Logg**. FEniCS 1.0 (?), International FEniCS'10 workshop, KTH, Stockholm, 2010.
- [494] **A. Logg**. Automated Scientific Computing, Chalmers University of Technology, 2010.
- [495] **A. Logg**. Implementation of FEM Assembling in DOLFIN, AC/DC seminar series, 2010.
- [496] **A. Logg** and **M. E. Rognes**. Automated Goal-Oriented Error Control, China–Norway–Sweden Workshop on Computational Mathematics, 2010.
- [497] **A. Logg**. Automated Scientific Computing, 23rd Chemnitz FEM Symposium, 2010.
- [498] **A. Logg**. FEniCS: Automated Scientific Computing, 8th International Conference of Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, September 19-25, 2010.

- [499] F. Lovholt, S. Bazin, **R. E. Bredeesen**, C. B. Harbitz, D. Kohn and H. Bungum. Stochastic Variation of Tsunami Run-Ups Due to Heterogeneous Slip on Reverse Faults, 7th EGU General Assembly, Geophysical Research Abstracts (European Geoscience Union), Copernicus, 2010.
- [500] **M. M. Maleckar**. Right Through the Heart: Perspectives and Problems, CBC Workshop, Right Through the Heart: Snapshots of Current and Future Research in Cardiac Modeling, 2010.
- [501] **K.-A. Mardal**. CSF Strmning I Forbindelse Med Chiari Malformasjon Og Syringomyelia - Kent-Andre Mardal, CBC Workshop on Clinical Issues Related to the Cerebrospinal Fluid, 2010.
- [502] **A. Massing**. Convergence Theory for Adaptive Finite Elements, AC/DC seminar series, 2010.
- [503] **A. Massing**. Nitsche's Method on Overlapping Meshes in 3D, AC/DC seminar series, 2010.
- [504] **M. Mortensen**. Introduction to Turbulence Modeling With FEniCS (CBC.RANS), CBC Workshop on Aerosols: Dispersion, Transport and Effects, Simula, November 10, 2010.
- [505] **M. Mortensen**. The G2 Navier Stokes Solver – on Why It Failed the Benchmark Test, CBC Workshop on Aerosols: Dispersion, Transport and Effects, Simula, November 10, 2010.
- [506] **H. Narayanan**. What Is Cbc.twist, By Harish Narayanan, AC/DC seminar series, 2010.
- [507] **B. F. Nielsen**, **O. M. Lysaker** and **P. Grottum**. Theoretical and Practical Aspects of the Inverse Ischemia Problem, Karlsruhe Institute of Technology, Germany, 2010.
- [508] **M. E. Rognes** and **A. Logg**. Automated Goal-Oriented Error Control for Stationary Variational Problems, International FEniCS'10 workshop, KTH, Stockholm, 2010.
- [509] **M. E. Rognes** and **A. Logg**. Automated Goal-Oriented Error Control for Stationary Variational Problems, European Finite Element Fair, University of Warwick, 2010.

- [510] **M. E. Rognes** and **A. Logg**. Automated Goal-Oriented Error Control With Applications to Fluid Flow, CBC Workshop on Cerebral Blood Flow and Stroke - Clinical, Experimental and Mathematical Models and Problems, 2010.
- [511] **M. E. Rognes** and **A. Logg**. A Framework for Automated Goal-Oriented Error Control, BIT 50 – Trends in Numerical Computing, 2010.
- [512] **M. E. Rognes** and **A. Logg**. Automated Goal-Oriented Error Control With Applications to Nonlinear Elasticity, DSPDEs 2010 - Emerging Topics in Dynamical Systems and Partial Differential Equations, Barcelona, 2010.
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