

## FOREWORD

This annual report about the year 2004 contains information on publications, seminars and guests. A list of DCAMM reports number 1-612 including the final references and also a list of the DCAMM S-reports number SI-S84 is available on request.

The report serves mainly as reference and documentation for accomplished activities. Information on the actual activities are available on our homepage: [www.dcammm.dk](http://www.dcammm.dk) and on the homepages of the cooperating departments of the center.

An important event of the year was the change of secretary. After having served DCAMM as secretary for 12 years Pauli Pedersen has retired. The Scientific Council elected Professor Ole Sigmund from Department of Mechanical Engineering, Solid Mechanics as new secretary. To honour Pauli Pedersens great and important work for DCAMM through several decades, a special session in his name is planed for the 10<sup>th</sup> internal DCAMM Symposium to be held in March 2005.

Another important change in DCAMM is that the orange DCAMM reports that until now have been sent out to members by regular mail, will be substituted by electronic reports that can be downloaded by members of DCAMM from the new DCAMM web-site [www.dcammm.dk](http://www.dcammm.dk). The annual report as well as newsletters will still be sent in paper versions. Members who have not yet sent their email addresses to us ([dcamm@mek.dtu.dk](mailto:dcamm@mek.dtu.dk)) are encouraged to do so. More information about the new DCAMM report submission and download system will be given in an accompanying letter.

The DCAMM Research School is a Research School that lives up to the national standards set up by Forskeruddannelsesudvalget under the Ministry of Science, Technology and Innovation. More than 30 Ph.D. students are attached to the School and the School organized three special, intensive courses in 2004, in addition to the standard courses given in the normal semester system for teaching at DTU and AAU. The activities planned for 2005 include the DCAMM Symposium.

The departments cooperating within DCAMM are:

from **Technical University of Denmark:**

IMM: Dept. of Informatics and Mathematical Modelling  
MAT: Dept. of Mathematics  
MEK-ET: Dept. of Mechanical Engineering, Fluid Mechanics and Energy Engng.  
MEK-FAM: Dept. of Mechanical Engineering, Solid Mechanics  
MEK-SKK: Dept. of Mechanical Engineering, Maritime Engineering

from **Aalborg University:**

BT-AAU: Building Technology and Structural Engineering  
IME-AAU: Institute of Mechanical Engineering

I thank our international contacts for their support and inspirations.

Ole Sigmund

**CONTENTS**

	page
1. Members 2004	3
2. Foreign members	3
3. Guests for extended periods in 2004	5
4a. Scientific publications in proceedings in 2004	6
4b. Publications in scientific journals in 2004	19
5. List of DCAMM reports from no. 613	29
6. List of DCAMM S-reports (Theses etc.) from no. S85	36
7. Other reports	37
8. DCAMM seminars given in 2004	39
 Appendix: List of members	 40

## 1. MEMBERS 2004

36 professors  
 62 scientific members           at the five cooperating departments at the Center  
 38 Ph.D.-students

39 elected members  
 14 foreign members           (listed in section 2)

(A complete list of names is given in the Appendix).

## 2. FOREIGN MEMBERS

Professor Hassan Aref  
 Virginia Polytechnic Institute & State University  
 333 Norris Hall  
 Blacksburg, VA 24061-0217  
 USA

Professor G.I. Barenblatt  
 Department of Mathematics  
 UC Berkeley  
 USA

Professor John P. Breslin, Dr. Sc.  
 Calle Dinamarca 7  
 03193 San Miguel de Salinas, (Alicante)  
 Spain

Professor Germund Dahlquist  
 Kungliga Tekniska Högskolan  
 Stockholm  
 Sweden

Professor John W. Hutchinson  
 Division of Applied Sciences  
 Harvard University, 315 Pierce Hall  
 29 Oxford St.  
 Cambridge, MA 02138, USA

Professor Joseph B. Keller  
 Departments of Mathematics and Mechanical Engineering  
 Stanford University  
 Stanford, California  
 USA

Professor Michael S. Longuet-Higgins  
UCSD  
USA

Professor Ole Secher Madsen  
Ralph M. Parsons Lab., Dept. of civil Eng.  
Massachusetts Institute of Technology  
Cambridge, MA 02139  
USA

Professor Alan Needleman  
Division of Engineering, Box D  
Brown University  
Providence, RI 02912  
USA

Professor S. Nemat-Nasser  
University of California in San Diego  
La Jolla, CA 92093, 0416  
USA

Professor D.H. Peregrine  
School of Mathematics  
University Walk  
Bristol BS8 1TW  
UK

Professor Bertil Storåkers  
Kungliga Tekniska Högskolan  
S-100 44 Stockholm  
Sweden

Professor Ib A. Svendsen  
Department of Civil Engineering  
University of Delaware, Newark, DE 19716  
USA

recently died

Professor John E. Taylor  
Department of Aerospace Engineering  
Aerospace Engineering Building  
University of Michigan  
Ann Arbor, MI 48109  
USA

### 3. GUESTS FOR EXTENDED PERIODS IN 2004

Wenchang Sun, Nankai University, China (March 22- April 30)

John W. Hutchinson, Professor, Harvard University, U.S.A. (July 1 - December 31)

M Kuroda, Assoc. Prof., Yamagata University, Japan (August 22 - September 11)

W. E. Warren, Dr., University of New Mexico, Albuguerque, USA (June 1 - September 30)

Subhasish Dey, Professor, Indian Institute of Technology, Department of Civil Engineering, Kharagpur (January 1 - December 31)

Henrik Bredmose, Ph.D, DHI, Hørsholm, Denmark (January 1 - December 31), (part time)

Alaa Mansour, Ph.d., Dr. techn. H.c., UC Berkeley, U.S.A. (September 1 - September 30)

Armen der Kiureghian, Ph.d., UC Berkeley, U.S.A. (August 1 - October 31)

Valery Okulov, Professor, Institute of Thermophysics, Siberian branch of RAS, Russian Academy of Sciences, Russia (July1 – December 31)

Igor Naumov, Senior Researcher, Institute of Thermophysics, Siberian branch of RAS, Russian Academy of Sciences, Russia (May 1 – July 31)

#### 4A. SCIENTIFIC PUBLICATIONS IN PROCEEDINGS IN 2004

Andersen, P., Friesch, J. Kappel, J.J.: Development and Full-Scale Evaluation of a New Marine Propeller Type. In: Christel Reese (ed): Jahrbuch der Schiffbautechnische Gesellschaft (STG), Hamburg, Springer Verlag, Berlin, pp. 465-476, 2004.

Bendsøe, M.P.: See Sigmund, O.

Bjørnø, L.: Scattering of plane acoustic waves at elastic spheres with rough surfaces. Proceedings 27th Scandinavian Symposium on Physical Acoustics, Scientific/Technical Report ISBN 82-8123-000-2, Ulf Christiansen (Ed.), Norwegian University of Science and Technology, Trondheim, July, pp. 1-14, 2004.

Borg, U.: Compressive strength of fiber composite with porosity, in: Gutkowski, W., Kowalewski, T.A. (eds.), Proceedings of the 21st International Congress of Theoretical and Applied Mechanics, Warsaw, Poland, 15-21 August 2004, IPPT PAN, Warszawa, CD-ROM, 2004.

Bozhevolnaya, E.: See Thomsen, O.T.

Bræstrup, M. W.: Concrete Coating of Marine Pipelines, Czech Concrete Day, Hradec Kralove 1 - 2 December, Proc, 14 pp, 2004.

Bræstrup, M. W., Pedersen, C. & Elnegaard, J.: Load Capacity Assessment of 40 Years Old Balanced Cantilever Bridge, Segmental Construction in Concrete, fib Symposium, New Delhi 26 - 29 November, Proceedings, pp 172 - 174 + CD-ROM 9 pp, 2004.

Bræstrup, M. W., Knudsen, A. & Andersen, M. E.: Constructing Durable Strait Crossings: Recent Danish Experience Metropolitan Habitats and Infrastructure, IABSE Symposium, Shanghai 22 - 24 September, Proc, pp 24-29, 2004.

Byskov, E.: Mode Interaction in Structures - An Overview. In Proceedings CD-ROM of the Sixth World Congress on Computational Mechanics in conjunction with the Second Asian-Pacific Congress on Computational Mechanics, Sept. 5-10, Beijing, China. Copyright (c) 2004 Tsinghua University Press & Springer-Verlag. ISBN 7-89494-512-9 (11 pages). Published on cd-rom (11 pages), 2004.

Byskov, E., Dam, R., Frost, T. & Hulsbæk, L.: Stability of Shear-Flexible Frames. In Proceedings of the ICTAM04, 21st International Conference on Theoretical and Applied Mechanics, August, 15-21, Warsaw, Poland (2-page summary), 2004.

Christensen, O.: Fames and multiresolution analysis. Invited paper, in "Certain Mathematical topics in Real-World Problems", eds. K.M. Furati, Zuhair Nashed, A. H. Siddiqi. Marcel Dekker 2004.

Christensen, O.: Recent developments in frame theory. Proceedings of the ICIAM'04 conference, New Delhi, December 4-6, 2004.

Casazza, P., Christensen, O., Li, Shidong & Lindner, A.: Density results for frames of exponentials. In "Harmonic Analysis and Applications", eds C. Heil. Birkhauser 2004.

Christensen, S.T., Rasmussen, J., Paul, G. & Siebertz, K.: Musculoskeletal shoulder model strength depends strongly on segment configuration. Proceedings of the 14th European Society of Biomechanics conference, s'-Hertogenbosch, The Netherlands, July 4-7, 2004.

Dahlquist, J., Christensen, S.T., Rasmussen, J., Zee, M. de & Damsgaard, M.: The seated human - biomechanical modeling/ergonomic design. 2nd Nordic Seating Symposium, Oslo, Norway, 28-30 April. 2004.

Christensen, S.T.: See Rasmussen, J.

Clorius, C.O., Pedersen, M.U., Hoffmeyer, P. & Damkilde, L.: Fatigue in Tension Perpendicular to the Grain. In Proceedings of Third International Conference of the European Society for Wood Mechanics, Vila Real, Portugal, p.10, September 2004.

Astrup, T., Clorius, C.O., Damkilde, L. & Hoffmeyer, P.: Size Effect in Tension Perpendicular to Grain. In Proceedings of Third International Conference of the European Society for Wood Mechanics, Vila Real, Portugal, p. 8, September 2004.

Sørensen, J.D., Damkilde, L. & Munch-Andersen, J.: Load Bearing Capacity of Roof Trusses. In Proceedings of ASCE Speciality Conference on Probabilistic Mechanics and Structural Reliability, p. 6, Albuquerque, U.S.A., July 2004.

Clausen, J, Damkilde, L. & Andersen, L.: One-step direct return method for Mohr-Coulomb plasticity. In Proceedings of 17<sup>th</sup> Nordic Seminar on Computational mechanics, pp. 4, 2004.

Forster, E., Simon, U., Damsgaard, M., Rasmussen, J., Augat, P. & Claes, L.: Agreement of Muscular Activation and Hip Contact Forces Predicted with two Different Software Packages. 6th international symposium in biomechanics and biomedical engineering, February 25-28, Madrid. 2004.

Damsgaard, M.: See also Rasmussen, J., Christensen, S.T.

Ditlevsen, O.D. & Källsner, B.: Statistical series system effects on bending strength of timber beams. In Reliability and Optimization of Structural Systems (eds.: Marc A. Maes and Luc Huyse), A.A. Balkema Publishers, pp. 141-148, 2004.

Ditlevsen, O.D.: See Friis-Hansen, P.

Dietz, J. S., Friis-Hansen, P. & Jensen, J. J.: Most Likely Response Waves for Estimation of Extreme Value Ship Response Statistics. In: H. Keil and E. Lehmann

(eds), Proceedings of PRADS'04, Travemünde, Sep., Schiffbautechnische Gesellschaft, Seehafen Verlag, pp. 286-293, 2004.

Du, J. & Olhoff, N.: Dynamic Design of Continuum Structures Using Topology Optimization. In: Proc. 17th Nordic Seminar on Computational Mechanics, eds. A. Eriksson, J. Månsson and G. Tibert, October 15-16, 2004, Stockholm, Sweden. KHT Mechanics, Royal Institute of Technology, Stockholm, Sweden, pp. 86-89, 2004.

Du, J.: See Olhoff, N.

Ebbesen, M. K., Hansen, M. R. & Pedersen, N. L.: A Modular Approach to Analysis of Large Scale Baggage Handling Systems. Publiceret i: Proc. of the 17th Nordic Seminar on Computational Mechanics (NSCM-17), Stockholm, Sweden. pp. 23-26, 2004.

Ebbesen, M.K.: See Hansen, M.R.

Friis-Hansen, P. & Ditlevsen, O.D.: Likelihood estimation of parameters using simultaneously monitored processes. In: ASCE (ed), Proceedings of 9th Joint Specialty Conference on Probabilistic Mechanics and Structural Reliability, Albuquerque, New Mexico, July 26-28, ASCE, Omnipress, CD-ROM, 2004.

Friis-Hansen, P.: See Dietz, J.S.

Gersborg-Hansen, A.: See Sigmund, O.

Halkjær, S. & Sigmund, O.: Optimization of Beam Properties with Respect to Maximum Band-Gap. In: W. Gutkowski & T.A. Kowalewski (eds), Proceedings of 21'st International Congress of Theoretical and Applied Mechanics, Warsaw, Poland, 15-21 August, IPPT, PAN, Warsaw, 353 + 2 CD-ROM pages, 2004.

Hansen, M.R. & Andersen, T.O.: Project-Oriented and Problem-Based Learning: A Mechatronic Curriculum. International Mechanical Engineering Congress and R&D Expo, Anaheim, USA, November. 2004.

Hansen, M.R. & Andersen, T.O.: Multi Criteria Design Optimization of an Electrically Driven Servo Robot. REM 5th International Conference on Research and Education in Mechatronics, Kielce, Poland, October. 2004.

Hansen, M.R. & Andersen, T.O.: Challenges in Mechanical Engineering Educations towards a Mechatronics System Design Approach System Design Approach. REM 5th International Conference on Research and Education in Mechatronics, Kielce, Poland, October. 2004.

Hansen, M.R. & Andersen, T.O.: Automated Sizing Procedure of Servo-Driven Robot for Pallettes Handling. International Mechanical Engineering Congress and R&D Expo, Anaheim, USA, November. 2004.



Hansen, M.R. & Andersen, T.O.: An Approach to Specifying the Dynamic Performance of a Hitch Valve on an Agricultural Tractor. International Mechanical Engineering Congress and R&D Expo, Anaheim, USA, November. 2004.

Hansen, M.R. & Andersen, T.O.: A Mechatronic Curriculum Based on Project Oriented and Problem Oriented Learning: Challenges and Solutions. Mechatronics & Robotics 2004 IEEE Industrial Electronics Society APS - European Centre for Mechatronics, Aachen, Germany, September. 2004.

Andersen, T.O. & Hansen, M.R.: Design of an Adaptive Control Scheme for an Electrohydraulically Driven Robot. REM 5th International Conference on Research and Education in Mechatronics, Kielce, Poland, October. 2004.

Andersen, T.O. & Hansen, M.R.: A Mechatronic Solution for Efficiency Optimization of Forklift Trucks. REM 5th International Conference on Research and Education in Mechatronics, Kielce, Poland, October. 2004.

Hansen, M.R., Andersen, T.O. & Pedersen, P.: Design of Over Centre Valve Based on Predictable Design Performance. I: International Mechanical Engineering Congress and R&D Expo, Anaheim, USA, November 2004.

Hansen, M. R., Andersen, T.O. & Mouritsen, O.Ø.: A Scheme for Handling Discrete and Continuous Design Variables in Multi Criteria Design Optimization of Servo Mechanism. Mechatronics & Robotics 2004 IEEE Industrial Electronics Society APS - European Centre for Mechatronics, Aachen, Germany, September. 2004.

Andersen, T. O., Hansen, M. R. & Ebbesen, M. K.: Multi Criteria Design Improvement of Commercial Loader Crane. Publiceret i: International Mechanical Engineering Congress and R&D Expo, Anaheim, USA, November. 2004.

Andersen, T.O. & Hansen, M.R.: Linear perturbation Adaptive Control of Hydraulically Driven Manipulators. International mechanical Engineering Congress and R&D Expo, Anaheim, USA, November. 2004.

Andersen, T.O. & Hansen, M.R.: Perturbation Adaptive Control of Hydraulically driven Manipulators. Mechatronics & Robotics 2004 IEEE Industrial Electronics Society APS - European Centre for Mechatronics, Aachen, Germany, September. 2004.

Andersen, T.O. & Hansen, M.R.: Motion Control of Hydraulically Driven Manipulator. I: Mechatronics & Robotics 2004 IEEE Industrial Electronics Society APS-European Centre for Mechatronics, Aachen, Germany, September. 2004.

Andersen, T.O., Hansen, M.R., Pedersen, P. & Bech, M.M.: A Mechatronic Concept for Combined Traction and Steering Control of Small Vehicles. REM 5th International Conference on Research and Education in Mechatronics, Kielce, Poland, October. 2004.

Pedersen, H.C., Andersen, T.O. & Hansen, M.R.: Load Sensing Systems - A Review of the Research Contributions Throughout the Last Decades. Proc. 4. IFK Workshop, Dresden, Germany, March, pp. 125-139, 2004.

Pedersen, H.C., Andersen, T.O. & Hansen, M.R.: An Optimisation Approach Applied to Design the Hydraulic Power Supply for a Forklift Truck. Proc. ASME International Mechanical Engineering Congress, Anaheim, California, USA, 2004.

Nielsen, B., Andersen, T.O. & Hansen, M.R.: Design Optimisation and Control of a Pilot Operated Seat Valve. 4th International Fluid Power Conference Proceedings Vol. 1, Dresden. pp. 47-59, 2004.

Bech, M.M., Pedersen, P., Andersen, T.O. & Hansen, M.R.: Vector Control of AC-drives for Usage in Fluid Power Mechatronic Applications. REM 5th International Conference on Research and Education in Mechatronics, Kielce, Poland, October. 2004.

Hansen, M.R.: See Ebbesen, M.K.

Høgsberg, J.R. & Krenk, S.: Newmark integration with filter properties. NSCM-17: Proceedings of the 17th Nordic Seminar on Computational Mechanics. Eds. A. Eriksson, J. Månson and G. Tibert. Pp. 145-147. Royal Institute of Technology Stockholm, Sweden. October 15-16 2004.

Høgsberg, J.R. & Krenk, S.: Linear control strategies for structural damping. Proceedings of MoVIC04: 7th International Conference on Motion and Vibration Control (CD-ROM). Eds. B. Spencer, L.A. Bergman, S. Dyke and J.M. Caicedo. Paper no. 60. Washington University in St. Louis, St. Louis, USA, August 8-11 2004.

Jensen, D.K.: Simulation of the Exothermic Cure Process for "Low-Bleed" Thermoset Prepreg Systems. Proceedings of 17th Nordic Seminar on Computational Mechanics (NSCM 17) Stockholm, pp 187, 2004.

Jensen J. S.: Optimal design of lossy bandgap structures. In W. Gutkowski and T. A. Kowalewski (eds.), Proceedings (CD-ROM) of 21st International Congress on Theoretical and Applied Mechanics ICTAM XXI, August 15–21, Warsaw, Poland, 2004.

Jensen, J. S. & Sigmund, O.: Topology optimization: a systematic method to improve the performance of photonic crystal structures. In: S. Noda (ed), International Symposium on Photonic and Electromagnetic Crystal Structures PECS-V, Kyoto, March 7-11, Kyoto University, Kyoto, p. 112, 2004.

Borel, P. I., Frandsen, L. H., Harpøth, A., Kristensen, M., Niemi, T., Xing, P., Jensen, J. S. & Sigmund, O.: Design and Fabrication of SOI-based photonic crystal components. In: Marian Marciniak (ed), Proceedings of 6th IEEE International Conference on Transparent Optical Networks ICTON 2004, Wroclaw July 4-8, 2004, National Institute of Telecommunications, Warsaw, Poland, 271-275 and on CD-ROM, 2004.

Harpøth, A., Frandsen, L. H., Kristensen, M., Borel, P. I., Jensen, J. S., Sigmund, O. & Shi, P.: Fabrication of topology optimized photonic crystal waveguide Z-bend displaying large bandwidth with very low bend loss. In: S. Noda (ed), Proceedings of International Symposium on Photonic and Electromagnetic Crystal Structures PECS-V, Kyoto, March 7-11, Kyoto University, Kyoto, p.83, 2004.

Jensen, J.S.: See Sigmund, O.

Jensen, J. J.: Conditional Short-crested second order waves in shallow water and with superimposed current. In: Subrata K. Chakrabarti (eds), Proceedings of 23rd International Conference on Offshore Mechanics and Arctic Engineering, Vancouver, Canada, 20-25 June, ASME, New York, NY USA, 2004.

Jensen, J. J.: Fast Evaluation of Ship Responses in Waves. In: Liang Cheng and Kervin Yeow (eds), Proceedings of Hydrodynamics VI, Perth, Australia, 24-26 November, A.A. Balkema Publishers, Leiden, The Netherlands, pp. 77-82, 2004.

Olsen, A. S., Schrøter, C. & Jensen, J. J.: Encountered Wave Height Distributions for Ships in the North Atlantic. In: H. Keil and E. Lehmann (eds), Proceedings of PRADS'04, Travemünde, Sep., Schiffbautechnische Gesellschaft, Seehafen Verlag, pp. 1043-1050, 2004.

Mansour, A. E., Jensen, J. J. & Olsen, A. S.: Fast Evaluation of the Reliability of Container Securing Arrangements. In: H. Keil and E. Lehmann (eds), Proceedings of PRADS'04, Travemünde, Sep., Schiffbautechnische Gesellschaft, Seehafen Verlag, pp. 577-585, 2004.

Jensen, Jørgen J.: See also Vidic-Perunovic, J., Dietz, J.S.

Jensen, L.R. & Pyrz, R.: Molecular dynamics modeling of carbon nanotubes and their composites. Materials Processing and Design: Modeling, Simulation and Applications, 8th International Conference on Numerical Methods in Industrial Forming Process proceedings, Columbus, American Institute of Physics. pp. 1559-1564, 2004.

Kepler, J.A.: Stockholm, M. . Bionic Design Methods - A practical approach. Proceedings of the 4th International Conference on Advanced Engineering Design, Glasgow, 2004.

Krenk, S.: See Høgsberg, J.R.

Kühlmeier, L., Halling, K. M., Lund, E. & Thomsen, O.T.: Buckling Analysis of Generally Laminated Cylindrical Shells - An Analytical Approach. Proceedings of 17th Nordic Seminar on Computational Mechanics (NSCM 17), Stockholm. 2004.

Legarth, B. N.: A study of particle debonding with anisotropy. In: Gutkowski, W., Kowalewski, T. A., XXI International Congress of Theoretical and Applied

Mechanics (ICTAM04), Warsaw University of Technology, 15-21 August, IPPT PAN, Warsaw, Poland, CD-ROM, 2004.

Lund, E. & Stegmann, J.: On Structural Optimization of Composite Shell Structures Using a Discrete Constitutive Parameterization. *The Science of Making Torque from Wind*. (ed. G.A.M. van Kuik). pp. 556-567, 2004.

Lund, E. & Stegmann, J.: On Structural Optimization of Composite Shell Structures Using a Discrete Constitutive Parameterization. *ICTAM 2004, 21st International Congress on Theoretical and Applied Mechanics, Warsaw, Poland, August 15-21, Abstract Book*, pp 354, 2004.

Lund, E., Jakobsen, L.A. & Møller, H.: Analysis and Design Sensitivity Analysis of Transient Fluid-Structure Interaction Problems. *Proc. FIV2004 Fluid-Induced Vibration*, eds. E. de Langre, F. Axisa, Paris, France, 6-9 July, vol. 2, pp. 33-38, 2004.

Lund, E.: See also Møller, H., Kühlmeier, L.

Lyckegaard, A.: See Thomsen, O.T.

Møller, H. & Lund, E.: Computational Tricks for Efficient Design Sensitivity Analysis. *ICTAM 2004, 21st International Congress on Theoretical and Applied Mechanics, Warsaw, Poland, August 15-21, abstract book*. s. pp 361, 2004.

Møller, H.: See also Sorokin, S., Lund, E.

Niordson, C. F.: Size-Effects in Void Growth. In: W. Gutkowski, T. A. Kowalewski (eds), *XXI International Congress of Theoretical and Applied Mechanics (ICTAM04)*, Warsaw, Poland, August 15-21, IPPT PAN, Warsaw, Poland, CD-ROM, 2004.

Olhoff, N. & Seyranian, A.P.: On the Bifurcation and Initial Post-buckling Behaviour of Structures with Bimodal Optimum Buckling Loads. In: *Computational Mechanics, Proc. Sixth World Congress of Computational Mechanics (WCCM VI)*, Sept. 5-10, 2004, Beijing, China. Tsinghua University Press & Springer-Verlag, 10 pp., 2004.

Olhoff, N.: Recent Developments in Engineering Design Optimization. In: *Proc. New Trends in Fatigue and Fracture IV (NT2F4)*, May 10-12, 2004, Aleppo, Syria. Faculty of Mechanical Engineering, University of Aleppo, Syria, 9 pp., 2004.

Olhoff, N. & Du, J.: Topology Optimization of Vibrating Structures with Hydrodynamic Surface Pressure Loading. In: *CD-Rom Proc. 21st International Congress of Theoretical and Applied Mechanics, August 15-21, 2004, Warsaw, Poland*. Institute of Fundamental Technological Research, Warsaw, Poland, 2 pp., 2004.

Kharmanda, G. & Olhoff, N.: Recent Developments in Reliability-Based Design Optimization. In: *Computational Mechanics, Proc. Sixth World Congress of Computational Mechanics (WCCM VI)*, Sept. 5-10, 2004, Beijing, China. Tsinghua University Press & Springer-Verlag, 10 pp., 2004.

Olhoff, N.: See Du, J.

Pedersen, N. L.: On separation of eigenfrequencies in two-material structures. In Proceedings of 21th International Congress of Theoretical and Applied Mechanics, Warsaw, Poland, 2004.

Pedersen, N. L.: Maximizing gaps between eigenfrequencies in two-material structures. In Proceedings of The Seventh International Conference on Computational Structures Technology, Lisbon, Portugal, 2004.

Pedersen, N. L.: Formulation of conditions for minimum internal resonance. Proc. of the 17th Nordic Seminar on Computational Mechanics, (NSCM - 17), Stockholm, Sweden. s. 102-105, 2004.

Pedersen, N.L.: See also Ebbesen, M.K., Pedersen, P.

Pedersen, P.: Structural and material optimal shape design based on energy distributions. In proceedings of ASMO-UK 04. O. M. Querin (ed), University of Leeds, UK, 2004.

Pedersen, P.: Analytical axisymmetric finite elements with Green-Lagrange strains. In proceedings of 7th Int. Conf. on Computational Structures Technology. B. H. V. Topping and C. A. M. Soares (eds). Civil-Comp Press, Stirling, Scotland. 573-574 and 10 pages on CD, 2004

Pedersen, P. & Pedersen, N.L.: On shape optimization for eigenvalue problems. In proceedings of 21st Int. Congress of Theoretical and Applied Mechanics. W. Gutkowski and T. A. Kowalewski (eds). IPPT PAN, Warsaw, Poland. 351 and 2 pages on CD, 2004.

Araujo, A.L., Soares, C.M.M., Herskovits, J. & Pedersen, P.: Parameter estimation in active plate structures. In proceedings of 7th Int. Conf. on Computational Structures Technology. B. H. V. Topping and C. A. M. Soares (eds). Civil-Comp Press, Stirling, Scotland. 35-36 and 13 pages on CD, 2004.

Pedersen, P. T. & Li, Y.: On the Global Ship Hull Bending Energy in Ship Collisions. Society of Naval Architects of Japan (eds), Proceedings of 3rd International Conference on Collision and Grounding of Ships, ICCGS 2004, Izu, Japan, October 25-27, Society of Naval Architects of Japan, pp. 1-6, 2004.

Pyrz, R.: Interfacial properties of silicon nanocomposite materials. Prod. 17th Nordic Seminar on Computational Mechanics. A. Eriksson et al. Stockholm, pp. 118-121, 2004.

Pyrz, R. & Bochenek, B.: Identification of plane and spatial clustered distributions of particulate inclusions. Proc. 8th Int. conf. NUMIFORM. S. Ghosh et al. pp. 1765-1770, 2004.

Pyrz, R. & Bochenek, B.: Application of stochastic optimization to reconstruction of random microstructures. Proc. Int. Conference on Composites technologies for 2020, Sydney. L. Ye et. al. Woodhead Publishing Ltd., pp. 257-263, 2004.

Pyrz, R.: See also Schjødt-Thomsen, J., Rauhe, J.C., Jensen, L.R

Rasmussen, J., Damsgaard, M., Christensen, S.T., Zee, M. de, Dahlquist, J. & Dhang, N.: Musculoskeletal Modeling by Inverse Dynamics. The 14th European Society of Biomechanics Conference, Hertogenbosch, The Netherlands, July 4-7. 2004.

Rasmussen, J., Christensen, S.T., Damsgaard, M. & Zee, Mark de.: The role of mechanics and optimization in ergonomics. 5th ASMO-UK/ISSMO conference of Engineering Design Optimization, Stratford upon Avon, July 12-13. 2004.

Rasmussen, J., Christensen, S.T., Dahlquist, J., Damsgaard, M. & Zee, Mark de.: AnyBody - A quantitative ergonomic design method. Nordic Ergonomics Society, 36th Annual Conference "NES2004" Proceedings, Kolding, Denmark 16-18. August. Olsen, K.B. and Teller, O.J.. 2004.

Dhang, N., Rasmussen, J., Damsgaard, M., Christensen, S.T. & Zee, Mark de.: Development of a Universal Lower Extremity Gait Model for the Computation of Muscle Forces. The 14th European Society of Biomechanics Conference, Hertogenbosch, The Netherlands, July 4-7. 2004.

Gielo-Perczak, K., Rasmussen, J. & Christensen, S.T.: An analysis of load transmission within the human body during pushing and pulling. Proceedings of the XVIII Annual International Occupational Ergonomics and Safety Conference: Building Bridges to Healthy Workplaces, Houston, TX. Schulze L.J.H.. 2004.

Rasmussen, J.: See also Damsgaard, M., Christensen, S.T.

Rauhe, J.C., Pyrz, R. & Lund, E.: Large Scale FEM of the effective elastic properties of particle reinforced composites. Materials Processing and Design: Modeling, Simulation and Applications NUMIFORM 2004, Proceedings of the 8th International Conference on Numerical Methods in Industrial Forming Processes. S.Ghosh, J.C. Castro & J.K. Lee (eds). American Institute of Physics, Melville, N.Y., pp. 332-337. (AIP Conference Proceedings ; Nr. 712), 2004..

Madsen, H., Rosbjerg, D., Damgård, J. & Hansen, F. S.: Data assimilation in the MIKE 11 Flood Forecasting system using Kalman filtering. Hydrological Risk, Recent advances in peak river flow modelling, prediction and real-time forecasting - Assessment of the impacts of land-use change and climate changes (eds. A. Brath, A. Montanari and E. Toth), CNR-GNDCI Publ. no. 2858, Editoriale Bios, 263-270 (Reprint of IAHS Publ. no. 281, 75-81), 2004.

Røgen, P: The Geometry of Protein Structures by Numbers. (Poster P-14 and Oral presentation, page 68 in Europhysics Conference Abstracts Vol. 28A) Workshop on Structure and Function of Biomolecules Bedlewo, Poland, May 13-15, 2004. (Paper in press J. Phys. Cond. Matter. 2005).

Nielsen, B.G., Røgen, P.: Fold-class prediction using a Gauss-integral based representation of protein structure. (Poster B05-214, page 103) in Abstracts, 5'th Inter. Conf. on Biological Physics, ICBP August 23-27, Gothenburg Sweden, 2004.

Christensen, R. H. & Santos, I. F.: A Study of Active Rotor-Blade Vibration Control using Electro-Magnetic Actuation - Part I: Theory. In: Wittig, S., Simmons H., Strazisar, A., Abhari, R., Morgan T. and Jericha, H. (eds), Proceedings of 2004 ASME Turbo Expo, Vienna, Austria, 14-17 June, ASME, ISBN 0-7918-3739-1, Vienna, Austria, pp. 1-10, 2004.

Christensen, R. H. & Santos, I. F.: A Study of Active Rotor-Blade Vibration Control using Electro-Magnetic Actuation - Part II: Experiment. In: Wittig, S., Simmons H., Strazisar, A., Abhari, R., Morgan T. and Jericha, H., 2004 ASME Turbo Expo, Vienna, Austria, 14-17 June, ASME, ISBN 0-7918-3739-1, Vienna, Austria, pp. 1-10, 2004.

Nicoletti, R. & Santos, I. F.: Frequency Response Analysis of an Actively Lubricated Rotor/Tilting-Pad Bearing System. In: Wittig, S., Simmons H., Strazisar, A., Abhari, R., Morgan T. and Jericha, H. (eds), Proceedings of 2004 ASME Turbo Expo, Vienna, Austria, 14-17 June, ASME, ISBN 0-7918-3739-1, Vienna, Austria, pp. 1-10, 2004.

Christensen, R. H. & Santos, I. F.: Methodology for Analysing Controllability and Observability of Bladed Disc Coupled Vibrations. In: Nickolay I. Ivanov and Malcolm J. Crocker (eds), Proceedings of 11th International Congress on Sound and Vibration, St. Petersburg, Russia, International Institute of Acoustics and Vibration, St. Petersburg, Russia, ISBN: 5-7325-0816-3, pp. 323-330, 2004.

Schjødt-Thomsen, J. & Pyrz, R.: Influence of statistical cell dispersion on the local strain and overall properties of cellular materials. Proc. 8th Int. Conf. NUMIFORM, S. Ghosh et al., pp. 1630-1635, 2004.

Schjødt-Thomsen, J. & Pyrz, R.: Inclusion dispersion: effects on stress and effective properties. Proc. 21st International Congress of Theoretical and Applied mechanics. W. Gutkowski. Warsaw, pp. SM13-12489, 2004.

Sigmund, O. & Bendsøe, M. P.: Topology Optimization - from Airplanes to Nanooptics. In: Stubbkjær, K. and Kortenbach, T., Bridging from Technology to Society, pp. 40-51, Technical University of Denmark, Lyngby, Denmark, 2004.

Sigmund, O., Jensen, J. S., Gersborg-Hansen, A. & Haber, R.: Topology Optimization in wave-propagation and flow problems. In: T. Lewiński, O. Sigmund, J. Sokołowski and A. Żochowski (eds), Warsaw International Seminar on Design and Optimal Modelling WISDOM 2004, Warsaw, August 15, EXIT, Warszawa, pp 45-54, 2004.

Sigmund, O.: See also Jensen, J.S., Halkjær, S.

Simonsen, B.C. & Törnquist, R.: A Formula for Predicting Grounding Damage with Application to Damage Stability Safety. In: Society of Naval Architects of Japan (ed), Proceedings of 3rd International Conference on Collision and Grounding of Ships, ICCGS2004, Izu, Japan, Society of Naval Architects of Japan, Japan, pp. 34-42, 2004.

Simonsen, B.C.: See Törnquist, R.

Sorokin, S.V., Møller, H. & Terentiev, A.V.: On Flow-Induced Vibrations of an Elastic Cylindrical Shell Conveying a Compressible Fluid with a Flow Obstacle Proc. Int. Conference on Flow-Induced Vibrations FIV2004, Paris, France, 6-9 July, Ed. E. de Langre and F. Axisa, pp 179-185, 2004.

Sorokin, S.V.: Stationary Dynamics of Sandwich Plates under Heavy Fluid Loading XXXII Summer School – Conference 'Advanced Problems in Mechanics', June 24 / July 1, 2004, St. Petersburg (Repino), Russia, Book of Abstracts, p 94, 2004.

Sorokin, S.V. & Krylova, O.V.: The Boundary Equations Method for Analysis of Stationary Vibrations and Energy Flows in Spatial Finite and Semi-Infinite Structures Composed of Tubular Elements - XXXII Summer School – Conference 'Advanced Problems in Mechanics', June 24 / July 1, St. Petersburg (Repino), Russia, Book of Abstracts, p 64, 2004.

Sorokin, S.V.: Wave Propagation in and Sound Emission from a Sandwich Plate under Heavy Fluid Loading - 21st International Congress of Theoretical and Applied Mechanics August 15-21, Warsaw, Poland, Abstract Book p. 384, 2004.

Sorokin, S.V.: Boundary Equations – a Tool to Study Stationary Dynamics of Cylindrical Shells under Heavy Fluid Loading - NSCM-17. Proc. Of the 17th Nordic Seminar on Computational Mechanics Ed. A. Eriksson, J. Mansson, G. Tibert, pp 7-11, 2004.

Stegmann, J.: See Lund, E.

Skourup, J., Sterndorff, M.J., Smith, S.F., Cheng, X., Guedes Soares, C. & Pascoal, R.: Experimental Study of Loads on an FPSO in Design Environmental Conditions. International OMAE FPSO Integrity Conf., Paper No. OMAE-FPSO'04-0069, 2004.

Skourup, J., Sterndorff, M.J., Smith, S.F., Cheng, X., Guedes Soares, C. & Pascoal, R.: Model Tests with an FPSO in Design Environmental Conditions. OMAE'2004, Paper No. OMAE2004-51618, 2004.

Sumer, B.M.: Physical and mathematical modelling of scour. Proceedings of Second International Conference on Scour and Erosion. Singapore, 14-17.November, vol. 1, pp. 29-46, 2004.

Sumer, B.M.: Liquefaction around marine structures, LIMAS, an EU research program. Proceedings of the 6th International Conference on Hydrodynamics, 24-26.November, Perth, Australia. Hydrodynamics VI, Theory and Applications, pp.15-19, 2004.

Sumer, B.M. & Fredsøe, J.: Influence of turbulence on bedload sediment transport. Proceedings of Ninth International Symposium of River Sedimentation, 18-21.October, Yichang, China, vol. 3, pp.1371-1378, 2004.



- Sumer, B.M., Hatipoglu, F. & Fredsøe, J.: The cycle of soil behaviour during wave liquefaction. 29th International Conference on Coastal Engineering, ICCE 2004, Lisbon, 19-24.September, Abstracts, 171, 2004.
- Sumer, B.M., Hatipoglu, F. & Fredsøe, J.: Wave scour around a vertical circular pile in silt. Proceedings of Second International Conference on Scour and Erosion. Singapore, 14-17.November, vol. 2, pp. 498-505, 2004.
- Sumer, B.M., Hatipoglu, F., Fredsøe, J. & Hansen, N.-E. O.: Pipeline floatation in liquefied soils under waves. Proceedings of the 6<sup>th</sup> International Conference on Hydrodynamics, 24-26.November, Perth, Australia. Hydrodynamics VI, Theory and Applications, pp. 279-285, 2004.
- Cheng, L., Sumer, B.M., Fredsøe, J. & Hu, Y.: Wave induced liquefaction around a buried pipeline. Australian-New Zealand Geomechanics Conference, 2004.
- Hatipoglu, F., Sumer, B.M. & Fredsøe, J.: Wave boundary layers over a bed with large roughness. 29th International Conference on Coastal Engineering, ICCE 2004, Lisbon, 19-24.September, Abstracts, 202, 2004.
- Truelsen, C., Sumer, B.M. & Fredsøe, J.: Scour around spherical bodies and self-burial. 29th International Conference on Coastal Engineering, ICCE 2004, Lisbon, 19-24.September, Abstracts, 413, 2004.
- Søborg, A.V.: Reliability analysis of dynamic stability in waves. Proceedings of OMAE'04: 23rd International Conference on Offshore Mechanics and Arctic Engineering Vancouver, Canada, June 20-25, Artikel no: OMAE2004-51591, 2004.
- Thomsen, J. J. & Fidlin, A.: Discontinuous transformations and averaging for vibro-impact analysis. In: W. Gutkowski and T. A. Kowalewski (eds.): Proceedings of the XXI Int. Congress of Theoretical and Applied Mechanics, Warsaw, August 15-21, IPPT PAN, Warsaw, 2 pp, 2004.
- Fidlin, A., & Thomsen, J. J.: Non trivial effect of strong high-frequency excitation on a nonlinear controlled system. In: W. Gutkowski and T. A. Kowalewski (eds.): Proceedings of the XXI Int. Congress of Theoretical and Applied Mechanics, Warsaw, August 15-21, IPPT PAN, Warsaw, 2 pp, 2004.
- Thomsen, O.T.: Analysis and Design Against Local Effects in Sandwich Structures. Proceedings, Office of Naval Research (ONR) Solid Mechanics Program. Marine Composites and Sandwich Structures (Ed. Y. Rajapakse), University of Maryland, pp. 111-123, 2004.
- Thomsen, O.T.: Localized Effects in Lightweight Sandwich Structures Induced by Geometrical and Material Discontinuities. J.R. Vinson Symposium, Center for Composite Materials, University of Delaware, 6 July 2004.
- Thomsen, O.T., Bozhevolnaya, E. & Lyckegaard, A.: Localized Effects in Structural Sandwich Panels: Practical Occurrence, Analysis and Design. Proceedings of the 11th European Conference on Composite Materials, Rhodes, Greece, May 31-June 3. 2004.

Thomsen, O.T.: See Kühlmeier, L.

Törnquist, R. & Simonsen, B.C.: Safety and Structural Crashworthiness of Ship Structures; modelling tools and application in Design. In: Society of Naval Architects of Japan, Proceedings of 3rd International Conference on Collision and Grounding of Ships, ICCGS2004, Izu, Japan, October, Society of Naval Architects of Japan, Japan, pp. 285-294, 2004.

Törnquist, R.: See Simonsen, B.C.

Vidic-Perunovic, J, & Jensen, J.J.: Springing Response Due to Directional Wave Field Excitation. Ed. Keil, H, Lehman, E. Proc. 9th International Symposium on Practical Design of Ships and other Floating Structures - PRADS2004. Luebeck-Travemuende, Germany, pp. 869-875, 2004.

Zee, M. de: See also Rasmussen, J., Christensen, S.T.

#### 4B. PUBLICATIONS IN SCIENTIFIC JOURNALS IN 2004

Zalounina , A. & Andreasen, J.H. : A cracked coated solid subjected to contact loading. I: Wear : 257. pp. 671-686, 2004.

Rasmussen, P.O., Andreasen, J.H. & Pijanowski, J.M.: Structural Stator Spaces - A solution for noise reduction of switched reluctance motors. I: IEEE Transactions on Industry Applications. 40, Nr. 92. pp. 574-581, 2004.

Kawamoto, A., Bendsøe, M. P. & Sigmund, O.: Articulated mechanism design with a degree of freedom constraint. International Journal of Numerical Methods in Engineering, 61(9), pp. 1520-1545, 2004.

Kawamoto, A., Bendsøe, M. P. & Sigmund, O.: Planar articulated mechanism design by graph theoretical enumeration. Structural and Multidisciplinary Optimization, 27(4), pp. 295-299, 2004.

Yoon, G. H., Kim, Y. Y., Bendsøe, M. P. & Sigmund, O.: Hinge-free topology optimization with embedded translation-invariant differentiable wavelet shrinkage. Structural and Multidisciplinary Optimization, 27(3), pp.139-150, 2004.

Chellappa, S., Diaz, A.R. & Bendsøe, M.P.: Layout Optimization of Structures with Finite-size Features using Multiresolution Analysis. Structural and Multidisciplinary Optimization, Vol. 26, pp. 77 - 91, 2004.

Norato, J., Haber, R., Tortorelli, D. & Bendsøe, M.P.: A geometry projection method for shape optimization. International Journal for Numerical Methods in Engineering, Vol. 60 (14), pp. 2289-2312, 2004.

Bendsøe, M.P.: See Sigmund, O.

Bozhevolnaya, E. & Thomsen, O.T.: Structurally Graded Core Junctions in Sandwich Panels: Quasi Static Loading Conditions. Composite Structures, 2004.

Bozhevolnaya, E. & Thomsen, O.T.: Structurally Graded Core Junctions in Sandwich Panels: Fatigue Loading Conditions. Composite Structures, 2004.

Bozhevolnaya, E. & Sun, J. Q.: Free Vibration Analysis of Curved Sandwich Beams. Journal of Sandwich Structures and Materials 6 (1), pp. 47-73, 2004.

Bozhevolnaya, E., Lyckegaard, A., Thomsen, O.T. & Skvortsov, V.: Local effects in the vicinity of inserts in sandwich panels . Composites, part B 35. pp. 619-627, 2004.

Bozhevolnaya, E., Lyckegaard, A. & Thomsen, O.T.: Localized Effects Across Core Junctions in Sandwich Beams Subjected to In-Plane and Out-of-Plane Loading, 2004.

Bozhevolnaya, E.: See also Lyckegaard, A., Thomsen, O.T.

Bræstrup, M. W.: Discussion of S B Desai: Influence of Constituents of Concrete on its Tensile Strength and Shear Strength, *ACI Structural Journal*, Vol 101, No 6, Nov-Dec, pp 879 - 881, 2004.

Bræstrup, M.W., Knudsen, A. & Christensen, K.V.: Preserving the Infrastructure Assets: Experience from the Danish Strait Crossings, *Engenharia Estudo e Pesquisa*, Vol 6, No 1, Jan/Jun 2003, pp 82 - 96.

Christensen, O. & Eldar, Y.: Oblique dual frames and shift-invariant spaces. *Appl. Comp. Harm. Anal.* 2004 {\bf 17} no. 1, pp 48-68, 2004.

Christensen, S.T.: See Rasmussen, J.

Krabbenhøft, K., Hoffmeyer, P., Bechgaard, C. & Damkilde, L.: Finite Element Analysis of Boron Diffusion in Wooden Poles. *Wood and Fiber Science*, Vol. 36(4), pp. 573-584, 2004.

Krabbenhøft, K. & Damkilde, L.: A model for non-Fickian moisture transfer in wood", *Materials and Structures*, Vol. 37, No 273, pp. 615-622, 2004.

Damsgaard, M.: See Rasmussen, J.

Ditlevsen, O.D.: Distributions of extremes of random fields over arbitrary domains with application to concrete rupture stresses. *Probabilistic Engineering Mechanics*, Vol. 19, pp. 373-384, 2004.

Ditlevsen, O.D.: Invalidity of the spectral Fokker-Planck equation for Cauchy noise driven Langevin equation. *Probabilistic Engineering Mechanics*, Vol. 19, pp. 385-392, 2004.

Ditlevsen, O.D.: Life Quality Index revisited. *Structural Safety*, Vol. 26, pp. 443-451, 2004.

Lazarov, B. & Ditlevsen, O.D.: Simulation by Slepian method of plastic displacements of Gaussian process excited multistory shear frame. *Probabilistic Engineering Mechanics*, Vol. 19, pp. 113-126, 2004.

Du, J. & Olhoff, N.: Topological Optimization of Continuum Structures with Design-dependent surface Loading - Part I: New Computational Approach for 2D Problems. *Struct. Multidisc. Optim.* Vol. 27, pp. 151-165, 2004.

Du, J. & Olhoff, N.: Topological Optimization of Continuum Structures with Design-dependent surface Loading - Part II: Algorithm and Examples for 3D problems. *Struct. Multidisc. Optim.* Vol. 27, pp. 166-177, 2004.

Hansen, M.O.L. & Johansen, J.: Tip Studies using CFD and Comparison with Tip Loss Models. *Wind Energy*, 7:343-356, 2004.

Hjorth, P.G.: See Røgen, P.

Jensen, J. S. & Sigmund, O.: Systematic design of photonic crystal structures using topology optimization: low-loss waveguide bends. *Applied Physics Letters*, vol.84 (12), pp. 2022-2024, 2004.

Borel, P. I., Harpøth, A., Frandsen, L. H., Kristensen, M., Shi, P., Jensen, J. S. & Sigmund, O.: Topology optimization and fabrication of photonic crystal structures. *Optics Express*, 12 (9), pp. 1996-2001, 2004

Frandsen, L. H., Harpøth, A., Borel, P. I., Kristensen, M., Jensen, J. S. & Sigmund, O.: Broadband photonic crystal waveguide 60° bend obtained using topology optimization. *Optics Express*, 12 (24), pp. 5916-5921, 2004.

Jensen, J. J., Mansour, A. E. & Olsen, A. S.: Estimation of Ship Motions Using Closed-Form Expressions. *Ocean Engineering*, Vol. 31, pp. 61-85, 2004.

Baarholm, G. S. & Jensen, J. J.: Influence of Whipping on Long term Vertical Bending Moment. *Journal of Ship Research*, 48, no. 4, pp. 261-272, 2004.

Kepler, J.A.. Impact Penetration of Sandwich Panels at Different Velocities - an Experimental Parameter Study. : Part II: Interpretation of Results and Modeling. I. *Journal of Sandwich Structures and Materials* 6. pp. 379-397, 2004.

Kepler, J.A.: Impact Penetration of Sandwich Panels at Different Velocities - an Experimental Parameter Study: Part I - Parameters and Results. I. *Journal of Sandwich Structures and Materials* 6, Nr. 4. pp. 357-374, 2004.

Kildegaard, A.: See Thomsen, O.T.

Kliem, W. & Seyranian, A. P.: Metelitsyn's inequality and stability criteria for mechanical systems. *PMM, J. Appl. Maths Mechs*, 68 (2), pp. 199-205, 2004.

Kliem, W. & Pommer, C.: Stability and response bounds of non-conservative systems. *Archive of Applied Mechanics*, 73, pp. 627-637, 2004.

Kliem, W.: See Pommer, C.

Krenk, S.: See Rüdinger, F.

Ullum, T. & Larsen, P.S.: Swirling flow structures in electrostatic precipitator. *Flow, Turbulence and Combustion*, vol. 73, pp. 259-275, 2004.

Ullum, T., Larsen, P.S. & Özcan, O.: Three-dimensional flow and turbulence structure in electrostatic precipitator by stereo PIV. *Exp. Fluids* 36: pp. 91-99, 2004.

Riisgaard, H.U., Seerup, D.F., Jensen, M.H., Glob, E. & Larsen, P.S.: Grazing impact of filter-feeding zoobenthos in a Danish fjord. *JEMBE (Journal of Experimental Marine Biology and Ecology)*, vol. 307, pp. 261-271, 2004.

Larsen, R.M.: On Phosphorus as additive in iron based soft PM magnets. I: Powder Metallurgy, Maney Publishing. 47, Nr. 4, 2004.

Legarth, B. N.: Unit cell debonding analyses for arbitrary orientation of plastic anisotropy. International Journal of Solids and Structures, 41, pp. 7267-7285, 2004.

Legarth, B. N. & Kuroda, M.: Particle debonding using different yield criteria. European Journal of Mechanics A/Solids, 23, pp. 737-753, 2004.

Legarth, B.N.: See Tvergaard, V.

Lyckegaard, A. & Thomsen, O.T.: High Order Analysis of Junction between Straight and Curved Sandwich Panels. I. Journal of Sandwich Structures and Materials 6. pp. 497-525, 2004.

Lyckegaard, A., Bozhevolnaya, E. & Thomsen, O.T.: Experimental Investigation of Local bending Effects in the Vicinity of a Junction Between a Straight and a Curved Sandwich Beam. I. Composites part B Engineering 35, Nr. 6-8. pp. 629-637. 2004.

Lyckegaard, A.: See Bozhevolnaya, E.

Sørensen, N.N. & Michelsen, J.A.: Drag prediction for blades at high angle of attack using CFD. Journal of Solar Energy Engineering – Transactions of the ASME, vol. 126(4), pp. 10011-1016, 2004.

Michelsen, J.A.: See Shen, W.Z.

Niordson, C. F. & Redanz, P.: Size-effects in plane strain sheet-necking. Journal of the Mechanics and Physics of Solids, 52, pp. 2431-2454, 2004.

Niordson, C.F.: See Tvergaard, V.

Langthjem, M. & Olhoff, N.: A Numerical Study of Flow-induced Noise in a Two-dimensional Centrifugal Pump - Part I: Hydrodynamics. J. Fluids and Structures, Vol. 19, pp. 349-368, 2004.

Langthjem, M. & Olhoff, N.: A Numerical Study of Flow-induced Noise in a Two-dimensional Centrifugal Pump - Part II: Hydroacoustics. J. Fluids and Structures, Vol. 19, pp. 369-386, 2004.

Kharmanda, G., Olhoff, N., Mohamed, A. & Lemaire, M.: Reliability-based Topology Optimization. Struct. Multidisc. Optim. Vol. 26, pp. 295-307, 2004.

Kharmanda, G., Olhoff, N. & El-Hami, A.: Optimum Values of Structural Safety Factors for a Predefined Reliability Level with Extension to Multiple Limit States. Struct. Multidisc. Optim. Vol. 27, pp. 421-434, 2004.

Olhoff, N.: See also Du, J., Sorokin, S.

- Olsen, A.S.: Energy coefficients for a propeller series. *Ocean Engineering*, Vol. 31, No. 3-4, pp. 401-416, 2004.
- Pedersen, N. L.: On optimization of bioprobes. *Int. J. Numer. Met. Engng.* 61(4), pp. 791-806, 2004.
- Pedersen, N. L.: Optimization of holes in plates for control of eigenfrequencies. *Struct Multidisc Optim* 28(1), pp. 1-10, 2004.
- Pedersen, N.L.: See Pedersen, P.
- Pedersen, P.: A note on Design of Fiber-nets for Maximum Stiffness. *J. of Elasticity*, Vol. 73, pp 127-145, 2003.
- Pedersen, P.: Examples of of density, orientation and shape optimal design for stiffness and/or strength with orthotropic materials. *Struct. Multidisc. Optim.*, Vol. 26, pp 37-49, 2004.
- Pedersen, P.: Axisymmetric analytical stiffness matrices with Green-Lagrange strains. *Computational Mechanics*, online September 2004.
- Pedersen, P.: Analytical stiffness matrices with Green-Lagrange strain measure. *Int. J. Numer. Meth. Engng.*, Vol. 62, pp 334-352, 2005.
- Pedersen, P. & Pedersen, N.L.: An optimality criterion for shape optimization in eigenfrequency problems. *Struct. Multidisc. Optim.* (online).
- Zhang, S., Ocakli, H. & Pedersen, P. T.: Crushing of ship bows in head-on collision. *International Journal of Maritime Engineering*, Vol.146 Part A2, pp. 39-46, 2004.
- Hu, Y., Cui, W. & Pedersen, P. T.: Maintained ship hull girder ultimate strength reliability considering corrosion and fatigue. *Marine Structures*, Vol. 17, No. 2, pp. 91-123, 2004.
- Pommer, C. & Kliem, W.: Solution of the Lyapunov matrix equation for a system with a time-dependent stiffness matrix. *ZAMM, Z. Angew. Math. Mech.* 84, 1, pp. 48-52, 2004.
- Pommer, C.: See Kliem, W.
- Bochenek, B. & Pyrz, R.: Reconstruction of random microstructures - a stochastic optimization problem. *Journal of computational materials science* vol. 34. pp. 93-112, 2004.
- Wang, J. & Pyrz, R.: Micromechanics of layered silicate-reinforced nanocomposites, Part 1: Basic theory and formulas. *I. Comp. Sci. Techn.* 64. pp. 925-934, 2004.
- Wang, J. & Pyrz, R.: Micromechanics of layered silicate-reinforced nanocomposites, Part 2 - Analyses. *I. Comp. Sci. Techn.* 64. pp. 935-944, 2004.

Rasmussen, J.: Software til menneskekroppens mekanik. I: Teknisk Nyt Special ; Nr. 37, 2004.

Rasmussen, J., Christensen, S.T., Gföhler, M., Damsgaard, M. & Angeli, T.: Design Optimization of a pedaling mechanism for paraplegics. I: Structural and Multidisciplinary Optimization, Nr. 26. pp. 132-138, 2004.

Ansola, R., Canales, J., Tarrago, J.A. & Rasmussen, J.: Combined shape and reinforcement layout optimization of shell structures. Structural and Multidisciplinary Optimization, 27. pp. 219-227, 2004.

Redanz, P.: See Niordson, C.F.

Richelsen, A.B. & Tvergaard, V.: 3D analysis of cold rolling using a constitutive model for interface friction. Int. J. Mech. Sci. 46, pp. 653-671, 2004.

Barlebo H. C., Hill, M.C. & Rosbjerg, D.: Investigating the macrodispersion experiment (MADE) site in Columbus, Mississippi, using a three-dimensional inverse flow and transport model, Water Resour. Res. 40(4), W04211, doi:10.1029/2002WR001935, 2004.

Kjeldsen, T.R. & Rosbjerg, D.: Choice of reliability, resilience and vulnerability estimators for risk assessments of water resources systems, Hydrol. Sci. J. 49(5), pp. 755-767, 2004.

Schrøder, T. M. & Rosbjerg, D.: Groundwater recharge and capillary rise in a clayey catchment: modulation by topography and the Arctic Oscillation. Hydrol. Earth Sci. Syst. 8(6), pp. 1090-1102, 2004.

Rüdinger, F. & Krenk, S.: Identification of nonlinear oscillator with parametric white noise excitation, Nonlinear Dynamics, Vol. 36, 379-403, 2004.

Bywater, R.P., Poulsen, T.A., Røgen, P. & Hjorth, P.G.: De Novo generation of molecular structures using optimization to select graphs on a given lattice, J. Chem. Inf. Comput. Sci. Vol. 44, no. 3, pp. 856-861, 2004.

Santos, I. F. & Watanabe, F. Y.: Compensation of Cross-Coupling Stiffness and Increase of Direct Damping in Multirecess Journal Bearings using Active Hybrid Lubrication - Part I: Theory. Journal of Tribology, ASME Trans., 126, pp.146-155, 2004.

Santos, I. F., Saracho, C. M., Smith, J. T. & Eiland, J.: Contribution to Experimental Validation of Linear and Non-Linear Dynamic Models for Representing Rotor-Blade Parametric Coupled Vibrations. Journal of Sound and Vibration, 271, pp. 883-904, 2004.



Santos, I. F., Nicoletti, R. & Scalabrin, A.: Feasibility of Applying Active Lubrication to Reduce Vibration in Industrial Compressors. *Journal of Engineering for Gas Turbine and Power*, ASME Trans., 126, pp. 888-894, 2004.

Nicoletti, R. & Santos, I. F. : Active Lubrication: Feasibility and Limitations on Reducing Vibration in Rotating Machinery. *ABCM Series in Mechatronics*, 1, pp. 434-443, 2004.

Christensen, R. H. & Santos, I. F.: Modal Vibration Control in Periodic Time-Varying Structures with Focus on Rotor Blade Systems. *ABCM Series in Mechatronics*, 1, pp. 321-330, 2004.

Shen, W.Z., Michelsen, J.A. & Sørensen, J.N.: A collocated Grid Finite Volume Method for Aero-acoustic Computations of Low-speed Flows. *Journal of Computational Physics*, vol. 196, pp. 348-366, 2004.

Donoso, A. & Sigmund, O.: Topology optimization of multiple physics problems modelled by Poisson's equation. *Latin American Journal of Solids and Structures*, 1(2), pp. 169-189, 2004.

Bruns, T. E. & Sigmund, O.: Toward the topology design of mechanisms that exhibit snap-through behavior. *Computer Methods in Applied Mechanics and Engineering*, 193, pp 3973-4000, 2004.

Yoon, G.H., Kim, Y.Y., Sigmund, O. & Bendsøe, M.P.: Hinge-free topology optimization with embedded translation-invariant differentiable wavelet shrinkage. *Structural and Multidisciplinary Optimization*, Vol. 27, pp. 139 - 150, 2004.

Sigmund, O.: See also Bendsøe, M.P., Jensen, J.S.

Simonsen, B.C. & Li, S.: Mesh-Free Simulation of Ductile Fracture. *International Journal for Numerical Methods in Engineering*, 60, pp. 1425-1450, 2004.

Simonsen, B.C. & Törnquist, R.: Experimental and numerical modelling of ductile crack propagation in large-scale shell structures. *Marine Structures*, Vol. 17, No. 1, pp. 1-27, 2004.

Sorokin, S.V.: Analysis of Wave Propagation in Sandwich Plates with and without Heavy Fluid Loading. *Journal of Sound and Vibration* 271, pp. 1039-1062, 2004.

Sorokin, S.V.: A Note on the Effect of Compressibility on the Propagation of Free Waves in Sandwich Plates with Heavy Fluid Loading. *Journal of Sound and Vibration* 270, pp. 433-440, 2004.

Sorokin, S.V. & Grishina, S.V.: Analysis of Wave Propagation in Sandwich Beams with Parametric Stiffness Modulations. *Journal of Sound and Vibration* 271, pp. 1063-1082, 2004.

Sorokin, S.V., Nielsen, J.B. & Olhoff, N.: Green's Matrix and the Boundary Integral Equation Method for the Analysis of Vibration and Energy Flow in Cylindrical Shells with and without Internal Fluid Loading. *Journal of Sound and Vibration* 271, pp. 815-847, 2004.

Sorokin, S.V. & Ershova, O.A.: Plane Wave Propagation and Frequency Band Gaps in Periodic Plates and Cylindrical Shells with and without Heavy Fluid Loading. *Journal of Sound and Vibration* 278, pp. 501-526, 2004.

Stolpe, M.: Global optimization of minimum weight truss topology problems with stress, displacement, and local buckling constraints using branch-and-bound. *International Journal for Numerical Methods in Engineering*, Vol. 61, No. 8, pp. 1270-1309, 2004.

Stolpe, M. & Svanberg K.: Stress-constrained truss topology optimization problems that can be solved by linear programming. *Structural and Multidisciplinary Optimization*, Vol. 27, No. 1-2, pp. 126-129, 2004.

Okulov, V.L., Sørensen, J.N., Varlamova, E.A. & Naumov, I.V.: Emergence of Asymmetry and Unsteadiness in Laboratory Simulation of the Hydrodynamic Structure of a Tornado. *Izvestiya, Atmospheric and Oceanic Physics*, vol. 40, no. 2, pp. 195-209, 2004.

Okulov, V.L. & Sørensen, J.N.: Instability of Vortex Wakes behind Wind Turbines. *Doklady Physics*, vol. 49, no. 12 pp., pp. 1-5, 2004.

Sørensen, J.N.: See Shen, W.Z.

Thomsen, J. J.: Book review: Theory of Vibro-Impact Systems and Applications by V.I. Babitsky. *Journal of Vibration and Acoustics*, Vol. 24(2), 2004, pp. 317-318.

Thomsen, O.T. & Bozhevolnaya, E.: Structurally Graded Core Junctions in Sandwich Elements. I: Composites Part A. *Applied Science and Manufacturing*, 2004.

Thomsen, O. T., Bozhevolnaya, E., Kildegaard, A. & Skvortsov, V.: Local Effects across core Junctions in Sandwich Plates. I: SME Technical paper TP04PUB164 : 2004 ; 10 pp., 2004.

Thomsen, O.T. & Banks, W.M.: An improved Model for the Prediction of Intracell Buckling in CFRP Sandwich Panels under In-plane Compressive Loading . *Composite structures* 65, Nr. 3-4. pp. 259-268, 2004.

Frostig, Y. & Thomsen, O.T.: Localized Effects in the Non-Linear Behavior of Sandwich panels with a Transversely Flexible Core. *Journal of Sandwich Structures and Materials*, 2004.

Frostig, Y., Thomsen, O.T. & Vinson, J.R.: Delamination and Slipping Layer Effects in High-Order Bending of Unidirectional Curved Sandwich Panels with a Transversely Flexible Core. *Journal of Sandwich Structures and Materials*, 2004.

Frostig, Y., Thomsen, O.T. & Vinson, J. R.: High-Order Bending Analysis of Unidirectional Curved "Soft" Sandwich Panels with Disbonds and Slipping Layers. *Journal of Sandwich Structures and Materials* 6, Nr. 2. pp. 167-194, 2004.

Skvortsov, V. & Thomsen, O.T.: Local Instability of Shallow Sandwich Shells for the General Case of Orthotropy, Curvature and Loading. *Composite Structures*, 2004.

Frostig, Y. & Thomsen, O.T.: Localized Effects in Non-vertical Core Junctions of Sandwich Panels - A High-Order Approach, 2004.

Frostig, Y. & Thomsen, O.T.: High-Order Free Vibration of Sandwich Panels with a Flexible Core. *International Journal of Solids and Structures* 41, Nr. 5-6. pp. 1697-1724, 2004.

Thomsen, O.T.: See also Bozhevolnaya, E., Lyckegaard, A.

Klöcker, H. & Tvergaard, V.: Growth and coalescence of non spherical voids in metals deformed at elevated temperature. *Int. J. Mech. Sci.* 45, pp. 1283-1308, 2003.

Tvergaard, V. & Niordson, C.F.: Nonlocal plasticity effects on interaction of different size voids. *Int. J. Plasticity* 20, pp. 107-120, 2004.

Tvergaard, V. & Needleman, A.: 3D analyses of the effect of weld orientation in Charpy specimens. *Engng. Fracture Mechanics* 71, pp. 2179-2195, 2004.

Tvergaard, V.: Predictions of mixed mode interface crack growth using a cohesive zone model for ductile fracture. *J. Mech. Phys. Solids* 52, pp. 925-940, 2004.

Tvergaard, V.: Effect of residual stress on cavitation instabilities in constrained metal wires. *J. Appl. Mech.* 71, pp. 560-566, 2004.

Tvergaard, V.: Breakage and debonding of short brittle fibres among particulates in a metal matrix. *Mater. Sci. and Engng.* A369, pp. 192-200, 2004.

Tvergaard, V.: On fatigue crack growth in ductile materials by crack-tip blunting. *J. Mech. Phys. Solids* 52, pp. 2149-2166, 2004.

Tvergaard, V. & Legarh, B. N.: Effect of plastic anisotropy on crack growth resistance under mode I loading. *International Journal of Fracture*, 130, pp. 411-425, 2004.

Kuroda, M. & Tvergaard, V.: Shear band development in anisotropic bent specimens. *Eur. J. Mech. A/Solids* 23, pp. 811-821, 2004.

Desandre, D.A., Benzerga, A.A., Tvergaard, V. & Needleman, A.: Material inertia and size effects in the Charpy V-notch test. *Eur. J. Mech. A/Solids* 23, pp. 373-386, 2004.

Tvergaard, V.: See Richelsen, A.B.

Törnquist, R.: See Simonsen, B.C.

1 - 612: Ask for separate book.

613. THOMSEN, JON JUEL: Using Fast Vibrations to Quench Friction-Induced Oscillations (April 1999). *Journal of Sound and Vibration*, vol. 228, no. 5, pp. 1079-1102, 1999.
614. BUHL, T., PEDERSEN, C.B.W. & SIGMUND, O.: Stiffness design of geometrically non-linear structures using topology optimization (April 1999). *Structural and Multidisciplinary Optimization*, vol. 19, no. 2, pp. 93-104, 2000.
615. BENDSØE, MARTIN P. & SIGMUND, OLE: Material Interpolation Schemes in Topology Optimization (May 1999). *Arch. Applied Mech.*, vol. 69, no. 9-10, pp. 635-654, 1999.
616. BLEKHMANN, ILIYA I.: Forming the Properties of Nonlinear Mechanical Systems by Means of Vibration (May 1999). In E. Lavendelis, M. Zakrzhevsky (eds.), *Klüwer series: Solid Mechanics and its Applications*, vol. 37, IUTAM/IFTToMM Symposium on Synthesis of nonlinear Dynamical Systems, Riga august 1998, Dordrecht: Klüwer, pp. 1-12, 2000.
617. HANSEN, MORTEN H.: Effect of High-Frequency Excitation on Natural Frequencies of Spinning Disks (May 1999). *Journal of Sound and Vibration*, vol. 234, no. 4, pp. 577-589, 2000.
618. CHEN, SHANSHIN, TORTORELLI, DANIEL A. & HANSEN, JOHN M.: Unconditionally Energy Stable Implicit Time Integration: Application to Multibody System Analysis and Design (May 1999). *Int. J. Numer. Meth. Engng.*, vol. 48, pp. 791-822, 2000.
619. AHADI, AYLIN & KRENK, STEEN: Characteristic State Plasticity for Granular Materials. Part 2: Model Calibration and Results (May 1999). *Int. J. Solids Structures*, vol. 37, pp. 6361-6380, 2000.
620. PEDERSEN, NIELS L.: Maximization of Eigenvalues Using Topology Optimization (June 1999). *Structural and Multidisciplinary Optimization*, vol. 20, no. 1, pp. 2-12, 2000.
621. PEDERSEN, PAULI: On Influence of Boundary Conditions, Poisson's Ratio and Material Non-Linearity on the Optimal Shape (August 1999). *Int. J. Solids Structures*, vol. 38, pp. 465-477, 2001.
622. KRENK, STEEN: Vibrations of a Taut Cable with an External Damper (September 1999). *Journal of Applied Mechanics*, vol. 67, pp. 772-776, 2000.
623. SEYRANIAN, ALEXANDER P. & KLIEM, WOLFHARD: Bifurcations of Eigenvalues of Gyroscopic Systems with Parameters near Stability Boundaries

- (September 1999). *J. of Applied Mechanics*, vol. 68, pp. 199-205, March, 2001.
624. GRAVESEN, JENS & HENRIKSEN, CHRISTIAN: The Geometry of the Scroll Compressor (September 1999). *SIAM Rev.*, vol. 43, pp. 113-126, 2001.
625. KLÖCKER, H. & TVERGAARD, V.: Void growth and coalescence in metals deformed at elevated temperature (October 1999). *Int. J. Fracture*, vol. 106, pp. 259-276, 2000.
626. NIORDSON, CHRISTIAN F.: Analysis of Steady-State Ductile Crack Growth along a Laser Weld (November 1999). *International Journal of Fracture*, vol. 111, no. 1, pp. 53-69, 2001.
627. BOURDIN, BLAISE: Filters in Topology Optimization (December 1999). *International Journal for Numerical Methods in Engineering*, vol. 50, no. 9, pp. 2143-2158, 2001.
628. HARTNACK, JOHAN NICOLAI, BRØNS, MORTEN & SPOHN, ANDREAS: The Role of Asymmetric Perturbations in Steady Vortex Breakdown Bubbles (January 2000)
629. PEDERSEN, NIELS L.: On Topology Optimization of Plates with Prestress (January 2000). *Int. J. Numer. Met. Engng.*, vol. 5, no. 2, pp. 229-239, 2000.
630. SIMONSEN, BO CERUP & LAURIDSEN, LARS PEDER: Energy Absorption and Ductile Failure in Metal Sheets under Lateral Indentation by a Sphere (January 2000). *International Journal of Impact Engineering*, vol. 24, pp. 1017-1039, 2000.
631. PEDERSEN, CLAUS B.W., BUHL, THOMAS & SIGMUND, OLE: Topology Synthesis of Large-displacement Compliant Mechanisms (January 2000). *International Journal of Numerical Methods in Engineering*, vol. 50, no. 12, pp. 2683-2705, 2001.
632. SIGMUND, OLE & BUHL, THOMAS: Design of Multiphysics Actuators using Topology Optimization - Part I: One Material Structures (Part II: Two Material Structures (Ole Sigmund), Part III: Large Displacements (Ole Sigmund and Thomas Buhl) (February 2000). *Computer Methods in Applied Mechanics and Engineering*, vol. 190, no. 49-50, pp. 6577-6604, pp. 6605-6627 2001.
633. BRUNS, TYLER E. & TORTORELLI, DANIEL: Topology Optimization of Nonlinear Elastic Structures and Compliant Mechanism (March 2000). *Computer Methods in Applied Mechanics and Engineering*, vol. 190, no. 26-27, pp. 3443-3459, 2001.
634. KRENK, STEEN: Unified Formulation of Radiation Conditions for the Wave Equation (April 2000). *International Journal for Numerical Methods in Engineering*, vol. 53, pp. 275-295, 2002.

635. ANDERSEN, STEEN BRAHE & THOMSEN, JON JUEL: Post-critical Behavior of Beck's Column with a Tip Mass (April 2000). *International Journal of Non-linear Mechanics*, vol. 37, no. 1, pp. 135-151, 2002.
636. BRØNS, MORTEN, VOIGT, LARS KØLLGAARD & SØRENSEN, JENS NØRKÆR: Topology of Vortex Breakdown Bubbles in a Cylinder with Rotating Bottom and Free Surface (May 2000). *Journal of Fluid Mechanics*, vol. 428, pp. 133-148, 2001.
637. RÜDINGER, FINN & KRENK, STEEN: Non-parametric System Identification from Non-linear Stochastic Response (June 2000). *Probabilistic Engineering Mechanics*, vol. 16, pp. 233-243, 2001.
638. NIORDSON, FRITHIOF I.: An Asymptotic Theory for Spherical Shells (June 2000). *International Journal of Solids and Structures*, vol. 38, pp. 8375-8388, 2001.
639. POULSEN, THOMAS A.: Topology Optimization in Wavelet Space (June 2000). *International Journal for Numerical Methods in Engineering*, vol. 53, no. 3, pp. 567-582, 2002.
640. TVERGAARD, VIGGO: Crack Growth Predictions by Cohesive Zone Model for Ductile Fracture (July 2000). *J. Mech. Phys. Solids*, Vol. 49, pp. 2191-2207, 2001.
641. JENSEN, HENRIK MYHRE & SHEINMAN, IZHAK: Straight-sided, Buckling-driven Delamination at High Stress Level (August 2000). *International Journal of Fracture*, vol. 110, pp. 371-385, 2001.
642. NIORDSON, CHRISTIAN F. & TVERGAARD, VIGGO: Nonlocal Plasticity Effects on the Tensile Properties of a Metal Matrix Composite (August 2000). *European Journal of Mechanics A/Solids*, vol. 20, no. 4, pp. 601-613, 2001.
643. FIDLIN, ALEXANDER & THOMSEN, JON JUEL: Predicting Vibration-induced Displacement for a Resonant Friction Slider (August 2000). *European Journal of Mechanics A/Solids*, vol. 20, no. 1, pp. 155-166, 2001.
644. HANSEN, PETER FRIIS & DITLEVSEN, OLE: A Stochastic Still Water Response Model (August 2000). *Journal of Ship Research*, vol. 46, no. 1, pp. 16-30, 2002.
645. TCHERNIAK, DMITRI: Topology Optimization of Resonating structures using SIMP method (August 2000). *International Journal for Numerical Methods in Engineering*, vol. 54, pp. 1605-1622, 2002.
646. FIDLIN, ALEXANDER: On the Asymptotic Analysis of Discontinuous Systems (September 2000). *ZAMM*, vol. 82, no. 2, pp. 75-88, 2002.

647. BAASER, HERBERT & TVERGAARD, VIGGO: A New Algorithmic Approach Treating Nonlocal Effects at Finite Rate-independent Deformation using the Rousselier Damage Model (September 2000). *Comput. Meth. Appl. Mech. Engng.*, Vol. 192, pp. 107-124, 2003.
648. JENSEN, HENRIK MYHRE: Three Dimensional Numerical Investigation of Brittle Bond Fracture (November 2000). *International Journal of Fracture*, vol. 114, pp. 153-165, 2002.
649. THOMSEN, JON JUEL & TCHERNIAK, DMITRI M.: Chelomei's Pendulum Explained (November 2000). *Proceedings of the Royal Society of London A*, vol. 457, no. 2012, pp. 1889-1913, 2001.
650. BUHL, THOMAS: Simultaneous Topology Optimization of Structure and Supports (January 2001). *Structural and Multidisciplinary Optimization*, vol. 23, no. 5, pp. 336-346, 2002.
651. PEDERSEN, CLAUS B.W.: Topology Optimization of 2D-Frame Structures with Path Dependent Response (January 2001). *International Journal for Numerical Methods in Engineering*, vol. 57, pp. 1471-1501, 2003.
652. THOMSEN, JON JUEL & FIDLIN, ALEXANDER: Analytical Approximations for Stick-Slip Vibration Amplitudes (February 2001). *Int. J. of Non-linear Mechanics*, vol. 38, no. 3, pp. 389-403, 2003.
653. PEDERSEN, NIELS L.: Optimization of Laminated Plates with Prestress Using Topology Optimization (February 2001). *Computers & Structures*, vol. 80, pp. 559-570, 2002.
654. BRUNS, T.E., SIGMUND, O. & TORTORELLI, D.A.: Numerical Methods for the Topology Optimization of Nonlinear Elastic Structures that Exhibit Snap-Through (February 2001). *International Journal for Numerical Methods in Engineering*, vol. 55, no. 10, pp. 1215-1237, 2002.
655. KRENK, S., LIN, Y.K. & RÜDINGER, F.: Effective System Properties and Spectral Density in Random Vibration with Parametric Excitation (March 2001). *Journal of Applied Mechanics*, vol. 69, pp. 161-170, 2002.
656. NEVES, M.M., SIGMUND, O. & BENDSØE, M.P.: Topology Optimization of Periodic Microstructures with a Penalization of Highly Localized Buckling Modes (March 2001). *International Journal of Numerical Methods on Engineering*, vol. 54, no. 6, pp. 809-834, 2002.
657. DERIABINE, MIKHAIL: On Stability of Uniformly-Accelerated Motions of an Axially-Symmetric Heavy Rigid Body in an Ideal Fluid (April 2001). *Z. Angew. Math. Mech.*, vol. 83, no. 3, pp. 197-203, 2003.
658. KRISHNASWAMY, P.: Flow Modeling for Partially Cavitating Two-Dimensional Hydrofoils (May 2001). In *Proc. Pro CAV2001, Fourth International Symposium on Cavitation*, Pasadena, California, 2001.



659. KRENK, S. & NIELSEN, S.R.K.: Vibrations of Shallow Cable with Viscous Damper (June 2001). *Proceedings of the Royal Society*, vol. A458, pp. 339-357, 2002.
660. THOMSEN, J.J.: Some General Effects of Strong High-Frequency Excitation: Stiffening, Biasing, and Smoothing (June 2001). *J. of Sound and Vibration*, vol. 253, no. 4, pp. 807-831, 2002.
661. NIORDSON, CHRISTIAN F. & TVERGAARD, VIGGO: Nonlocal Plasticity Effects on Fibre Debonding in a Whisker-Reinforced Metal (June 2001). *European Journal of Mechanics A/Solids*, vol. 21, no. 2, pp. 239-248, 2002.
662. JENSEN, H.M. & SHEINMAN, I.: Numerical Analysis of Buckling-Driven Delamination (August 2001). *International Journal of Solids and Structures*, vol. 39, pp. 3373-3386, 2002.
663. POULSEN, THOMAS A.: A New Scheme for Imposing a Minimum Length Scale in Topology Optimization (September 2001). *International Journal for Numerical Methods in Engineering*, vol. 57, no. 6, pp. 741-760, 2003.
664. PEDERSEN, NIELS L. & NIELSEN, ANDERS K.: Optimization of Practical Trusses with Constraints on Eigenfrequencies, Displacements, Stresses and Buckling (October 2001). *Struct. Multidisc. Optim.*, vol. 25, no. 5-6, pp. 436-445, 2003.
665. THOMSEN, JON JUEL: Theories and Experiments on the Stiffening Effect of High-Frequency Excitation for Continuous Elastic Systems (October 2001). *Journal of Sound and Vibration*, vol. 260, no. 1, pp. 117-139, 2003.
666. PEDERSEN, CLAUS B.W.: Topology Optimization Design of Crushed 2D-Frames for Desired Energy Absorption History (November 2001). *Structural and Multidisciplinary Optimization*, vol. 5-6, pp. 368-382, 2003.
667. JENSEN, J. JUNCHER & MANSOUR, ALAA E.: Estimation of Ship Long-Term Wave-Induced Bending Moment using Closed-Form Expressions (December 2001). *Trans. Royal Society of Naval Architects*, vol. 144, pp. 41-55, 2002.
668. LEGARTH, BRIAN NYVANG, TVERGAARD, VIGGO & KURODA, MITSUTOSHI: Effects of Plastic Anisotropy on Crack-Tip Behavior (January 2002). *International Journal of Fracture*, vol. 117, pp. 297-312, 2002.
669. PEDERSEN, PAULI: Design Study of Hole Positions and Hole Shapes for Crack Tip Stress Releasing (January 2002). *Struct. Multidisc. Optim.*, vol. 28 (4), pp. 243-251, 2004.
670. HANSEN, JORN S. & LUND, ERIK: Structural Natural Frequency Shape Sensitivity Analysis: A Fixed Basis Function Finite Element Approach

- (January 2002). *Structural and Multidisciplinary Optimization*, vol. 25, no. 5/6, pp. 346-367, 2003.
671. KIRILLOV, O.N. & SEYRANIAN, A.P.: Collapse of the Keldysh Chains and Stability of Continuous Non-Conservative Systems (April 2002). *SIAM Journal on Applied Mathematics*, vol. 64, no. P, 2004 accepted for publication. *Doklady Mathematics*, vol. 66, no. 1, pp. 127-131, 2002.
672. PEDERSEN, NIELS L.: On Optimization of Bioprobes (June 2002). *International Journal for Numerical Methods in Engineering*, vol. 61 (6), pp. 791-806, 2004.
673. NIORDSON, CHRISTIAN F.: Strain Gradient Plasticity Effects in Whisker-Reinforced Metals (July 2002). *Journal of the Mechanics and Physics of Solids*, vol. 51, pp. 1863-1883, 2003.
674. RASHID, M.M. & TVERGAARD, V.: On the Path of a Crack near a Graded Interface under Large Scale Yielding (September 2002). *Int. J. Solids & Structures*, Vol. 40, pp. 2819-2831, 2003.
675. PEDERSEN, PAULI: On Combined Design of Density, Orientation and Shape for Stiffness and/or Strength with Orthotropic Materials (November 2002). *Struct. Multidisc. Optim.*, vol. 26, no. 1-2, pp. 37-49, 2004.
676. PEDERSEN, PAULI: A Note on Design of Fiber-Nets for Maximum Stiffness (December 2002). *J. of Elasticity*, vol. 73, pp. 127-145, 2003.
677. GUEDES, J. M., RODRIGUES, H. & BENDSØE, M. P.: A Material Optimization Model to Approximate Energy Bounds for Cellular Materials under Multiload Conditions. (December 2002). *Structural and Multidisciplinary Optimization*, vol. 25, pp. 446-452, 2003.
678. REDANZ, P. & MCMEEKING, R. M.: Sintering of spherical particles of equal and different size arranged in a body centered cubic structure. (December 2002). *Philosophical Magazine*, vol. 83, no. 23, pp. 2693-2714, 2003.
679. VIDIC-PERUNOVIC, JELENA & JENSEN, JØRGEN JUNCHER: Wave Loads on Ships Sailing in Restricted Water Depth. (January 2003). *Marine Structures*, vol. 16, pp. 469-485, 2003.
680. KLIEM, WOLFHARD & POMMER, CHRISTIAN: Stability and Response Bounds of Non-Conservative Linear Systems. (February 2003). *Archive of Applied Mechanics*, to appear.
681. KIRILLOV, OLEG N.: How do Small Velocity-Dependent Forces (De)Stabilize a Non-Conservative System? (April 2003). *Proceedings of the International Conference "Physics and Control", St.-Petersburg, Russia August 20-22*, vol. 4, pp. 1090-1095, 2003.

682. de la COUR, DORTHE D.: A New Algorithmic Approach for Solving Frictional Contact Problems using an Optimization Procedure. (May 2003)
683. PEDERSEN, NIELS LEERGAARD: Optimization of Holes in Plates for Control of Eigenfrequencies. (June 2003). *Struct. Multidisc. Optim.*, vol. 28 (1), pp. 1-10, 2004.
684. de la COUR, DORTHE D.: Identification of Material and Friction Parameters from Deep Drawing Inverse Analysis. (August 2003)
685. NIELSEN, KRISTIAN BENDIX & MAYER, STEFAN: Numerical Prediction of Green Water Incidents. (August 2003)
686. PEDERSEN, PAULI: Analytical Stiffness Matrices with Green-Lagrange Strain Measure. (October 2003). *Int. J. Numer. Meth. Engng.* vol. 62, pp. 334-352, 2005.
687. LEGARTH, BRIAN NYVANG & KURODA, MITSUTOSHI: Particle Debonding using Different Yield Criteria. (October 2003)
688. JENSEN, JAKOB S. & PEDERSEN, NIELS L.: On Separation of Eigenfrequencies in Two-Material Structures using Topology Optimization: the 1D and 2D Scalar Cases. (November 2003). *J. Sound and Vibration* (to appear).
689. KRENK, S. & HØGSBERG, J.R.: Damping of Cables by a Transverse Force (April 2004)
690. PEDERSEN, PAULI & PEDERSEN, NIELS L.: An Optimality Criterion for Shape Optimization in Eigenfrequency Problems (April 2004). *Struct. Multidisc. Optim.* (on line).
691. PEDERSEN, PAULI: Axisymmetric Analytical Stiffness Matrices with Green-Lagrange Strains (June 2004). *Computational Mechanics*, vol. 35, pp. 227-235, 2005.
692. STOLPE, M. & KAWAMOTO, A.: Design of Planar Articulated Mechanisms using Branch and Bound (June 2004)
693. HANSEN, LARS VOXEN: Topology Optimization of Free Vibrations of Fiber Laser Packages (June 2004)
694. PEDERSEN, SINE L.: Model of Contact between Rollers and Sprockets in Chain Drive Systems (June 2004). *Archive of Applied Mechanics*, vol. 74, pp. 489-508, 2005.
695. GERSBORG-HANSEN, ALLAN, SIGMUND, OLE & HABER, ROBERT B.: Topology Optimization of Channel Flow Problems (July 2004)

- 696. NIORDSON, CHRISTIAN F. & TVERGAARD, VIGGO: Instabilities in Power Law Gradient Hardening Materials (August 2004)
- 697. PEDERSEN, NIELS L.: Designing Plates for Minimum Internal Resonance (September 2004). Struct. Multidisc. Optim. (to appear).
- 698. MAIN, JOSEPH A. & KRENK, STEEN: Efficiency and Tuning of Viscous Dampers on Discrete Systems (October 2004)
- 699. PEDERSEN, PAULI: On Shrink Fit Analysis and Design (October 2004). Computational Mechanics (to appear).
- 700. BRØNS, MORTEN: Relaxation Oscillations and Canards in a Nonlinear Model for Discontinuous Plastic Deformation in Metals at very Low Temperatures (October 2004)

## **6. LIST OF DCAMM S-REPORTS (THESES ETC.)**

S1 - S84: Ask for separate book.

- S85. HANSEN, MORTEN H.: Aeroelasticity and Dynamics of Spinning Disks (September 1999)
- S86. POULSEN, THOMAS A.: Controlling Geometry in Topology Optimization (April 2002)
- S87. PEDERSEN, CLAUS B.W.: On Topology Design of Frame Structures for Crashworthiness (July 2002)
- S88. NIORDSON, CHRISTIAN F.: Non-local Modeling of Materials (September 2002)
- S89. BUHL, THOMAS: Design of Non-linear Mechanisms - Topology and Shape Optimization - (November 2002)
- S90. de la COUR, DORTHE D.: Identification of Material and Friction Parameters from Deep Drawing (August 2003)
- S91. LEGARTH, BRIAN NYVANG: Fracture and Damage with Plastic Anisotropy (April 2004)
- S92. PEDERSEN, SINE L.: Simulation and Analysis of Roller Chain Drive Systems (September 2004)
- S93. KAWAMOTO, ATSUSHI: Generation of Articulated Mechanisms by Optimization Techniques (December 2004)

## 7. OTHER REPORTS

Borg, U.: Numerical prediction of the compressive strength of fiber composites with porosity. Dept. Mech. Engng., Solid Mech., Techn. Univ. Denmark, Report, 2004.

Legarth, B. N.: Effects of geometrical anisotropy on failure in a plastically anisotropic metal", Report, Dept. Mech. Engng., Solid Mechanics, DTU, 2004.

Legarth, B. N.: Failure in imperfect anisotropic materials. Report, Dept. Mech. Engng., Solid Mechanics, DTU, 2004.

Legarth, B.N.: See Tvergaard, V.

Lyckegaard, A.: Analysis, design and optimisation of sandwich panels with discontinuities. Aalborg : Aalborg Universitet, 2004, 123 s.. (Special report / Institute of Mechanical Engineering, Aalborg University; Nr. 53) PhD.

Lützen, M. & Simonsen, B.C.: Representative Vessels, Structures, Materials and Grounding Scenarios. The Maritime and Coastguard Agency, UK, MCA Research Project 501, Technical Report No. 2, April 2004.

Lützen, M. & Simonsen, B.C.: Raking Experiments and Development of a Simplified Prediction Method. The Maritime and Coastguard Agency, UK, MCA, Research Project 501, Technical Report No. 3, April 2004.

Lützen, M.: See Simonsen, B.C.

Niordson, C.F. & Tvergaard, V.: Instabilities in power law gradient hardening materials. Report, Dept. Mech. Engng., Solid Mechanics, DTU, 2004.

Nygaard, J.V.: Fastfaseopskumning af termoplastisk polyurethan, STVF frame programme. Structurally Graded Polymeric Materials and Filled Polymers, Task C: Micromechanics and microstructure property correlations, 2004.

Pyrz, R.: Microstructural Description of Composites- Statistical Methods. I: CISM Courses and Lectures no. 464 / H. Böhm . Springer 2004, Udine, 2004.s. 173-233.

Gutkowski, W. & Pyrz, R.: 21st International Congress of Theoretical and Applied Mechanics. Warsaw, IVTAM, 2004.

Pyrz, R.: See Schjødt-Thomsen, J.

Rosbjerg, D. & Madsen, H.: Concepts of Hydrological Modelling, E&R, Technical University of Denmark, pp. 1-13, 2004.

Schjødt-Thomsen, J. & Pyrz, R.: Cubic inclusion arrangement: effect on stress and effective properties. Institute of Mechanical Engineering, AAU,, 2004.s. p. 22.

Simonsen, B.C.: Proposal of Rule Formula for the Raking Damage. Maritime Coastguard Agency, UK, MCA Research Project 501, Technical Report No. 5, April 2004.

Simonsen, B.C., Törnquist, R. & Lützen, M.: Finite Element Modeling and Development of a Simplified Method for Prediction of Grounding Damage. The Maritime and Coastguard Agency, UK, MCA Research Project 501, Technical Report No. 4, April 2004.

Simonsen, B. C., Törnquist, R. & Lützen, M.: Introductory and Summary Report. The Maritime and Coastguard Agency, UK, MCA Research Project 501, Technical Report No. 1, April 2004.

Simonsen, B.C.: See Lützen, M.

Stegmann, J.: Analysis and optimization of laminated composite shell structures. 2004. PhD.

Stolpe, M.: On the reformulation of topology optimization problems as linear or convex quadratic mixed 0-1 programs. MAT-Report No. 2004-13, 2004.

Thomsen, O.T.: Introduction to the Mechanics of Sandwich Structures. Introduction to the Mechanics of Sandwich Structures . 2004. (Space Engineering insert Design Handbook, European Cooperation for space standardization ; Nr. ECSS-E-30-06).

Thomsen, O.T.: Estimation of the Static Load Carrying Capability of an Insert in a Large Sandwich Panel. Space Engineering Insert Design Handbook, European Cooperation for Space Standardization, ECSS-E-30-06 . 2004.

Tvergaard, V.: Interface crack growth by void expansion mechanisms between ductile solid and elastic substrate. Report, Dept. Mech. Engng., Solid Mechanics, DTU, 2004.

Tvergaard, V.: Cohesive zone model predictions of crack growth in isotropic or anisotropic elastic-plastic solids. Report, Dept. Mech. Engng., Solid Mechanics, DTU, 2004.

Tvergaard, V.: Overload effects in fatigue crack growth by crack-tip blunting. Report, Dept. Mech. Engng., Solid Mechanics, DTU, 2004.

Tvergaard, V. & Legarh, B.N.: Effect of plastic anisotropy on crack growth resistance under mode I loading. Report, Dept. Mech. Engng., Solid Mechanics, DTU, 2004.

Tvergaard, V. & Legarh, B. N.: Crack growth resistance for anisotropic plasticity with non-normality effects. Report, Dept. Mech. Engng., Solid Mechanics, DTU, 2004.

Nakayama, Y. & Tvergaard, V.: Interaction of two closely spaced voids during growth to coalescence. Report, Dept. Mech. Engng., Solid Mechanics, DTU, 2004.

Tvergaard, V.: Niordson, C.F.

Törnquist, R.: See Simonsen, B.C.

## 8. DCAMM SEMINARS GIVEN IN 2004

Fleck, Norman A.: The Mechanics of Skin Injection. 2 March 2004.  
(Professor at Cambridge University Engineering Department, UK)

Seyranian, Alexander P.: Singularities of Stability Boundaries with Mechanical Applications. 2 April 2004. (Professor at Moscow State Lomonosov University, Russia)

Peerlings, R.H.J.: Higher-Order Plasticity Theories - A Comparison of Predicted Size Effects and Localisation Behaviour. 1 July 2004. (Eindhoven University of Technology, The Netherlands)

Kirillov, O.N.: Destabilization Paradox in Non-Conservative Systems: New Results. 16 July 2004. (Institute of Mechanics, Moscow State Lomonosov University, Russia)

Onck, Patrick R.: Mechanics of Cytoskeletal Actin Networks. 10 December 2004.  
(University of Groningen, Department of Applied Physics, Micromechanics of Materials, Groningen, The Netherlands)

## APPENDIX

### Abbreviations:

from Technical University of Denmark

IMM:	Dept. of Informatics and Mathematical Modelling
MAT:	Department of Mathematics
MEK-ET:	Dept. of Mechanical Engineering, Fluid Mechanics and Energy Engng.
MEK-FAM:	Dept. of Mechanical Engineering, Solid Mechanics
MEK-K&P:	Dept. of Mechanical Engineering, Engineering Design
MEK-SKK:	Dept. of Mechanical Engineering, Maritime Engineering

from Aalborg University

BT-AAU:	Building Technology and Structural Engineering
IME-AAU:	Institute of Mechanical Engineering

Albertsen, Niels Chr.	(IMM)	Associate Professor, Ph.D.
Ammitzbøll, Jeppe	(MAT)	Ph.D. student
Andersen, Poul	(MEK-SKK)	Associate Professor, Ph.D.
Andreasen, Jens H.	(IME-AAU)	Associate Professor, Ph.D.
Back-Pedersen, Andreas		Elected member, Ph.D.
Bang, Ole	(IMM)	Associate Professor
Bendsøe, Martin P.	(MAT)	Professor, dr.techn.
Berggren, Carl Christian	(MEK-SKK)	Assistant Professor, Ph.D.
Bingham, Harry	(IMM)	Associate Professor
Bisgaard, Anders	(MAT)	Ph.D. student
Bjørnø, Leif		Elected member, Professor
Borg, Ulrik	(MEK-FAM)	Ph.D. student
Bozhevolnaya, Elena	(IME-AAU)	Associate Professor, Ph.D.
Branner, Kim		Elected member, Ph.D.
Bredmose, Henrik		Elected member
Brincker, Rune	(BT-AAU)	Associate Professor
Brink-Kjær, Ole	(MAT)	Professor, Ph.D.
Brohus, Henrik	(BT-AAU)	Associate Professor, Ph.D.
Bræstrup, M.W.		Elected member, Ph.D.
Brøns, Morten	(MAT)	Professor, Ph.D.
Buhl, Thomas		Elected member, Ph.D.
Byskov, E.	(BT-AAU)	Professor, dr.techn.
Cavar, Dalibor	(MEK-ET)	Ph.D. student
Cederkvist, Jan		Elected member, Ph.D.
Christensen, Ole	(MAT)	Associate Professor, Ph.D.
Christensen, Søren T.	(IME-AAU)	Assistant Professor, Ph.D.
Christiansen, Edmund		Elected member, dr.scient.
Christiansen, Peter L.	(IMM)	Professor, dr.techn.

The degree of Ph.D.: After the five year engineering education, this degree can be obtained by a three year study, including courses and a thesis.



Christoffersen, Jes	(MEK-FAM)	Emeritus Assoc. Prof., Ph.D.
Cifuentes, Gustavo C.	(BT-AAU)	Ph.D. student
Damkilde, Lars		Elected Member, Prof., Ph.D.
Damsgaard, Michael	(IME-AAU)	Assistant Professor, Ph.D.
Deigaard, Rolf	(MEK-SKK)	Professor, Ph.D.
Dietz, Jesper	(MEK-SKK)	Ph.D. student
Ditlevsen, Ove	(MEK-SKK)	Professor, dr.techn.
Du, Jianbin	(IME-AAU)	Assistant Professor, Ph.D.
Ebbesen, Morten K.	(IME-AAU)	Ph.D. student
Engig-Karup, Allan	(MEK-SKK)	Ph.D. student
Fatigati, Giovanni	(MEK-ET)	Ph.D. student
Fenger, N.P.		Elected member, Ph.D.
Foley, Christina	(BT-AAU)	Assistant Professor, Ph.D.
Frier, Christian	(BT-AAU)	Assistant Professor, Ph.D.
Friis-Hansen, Peter	(MEK-SKK)	Professor, Ph.D.
Fuhrman, David	(MEK-SKK)	Ph.D. student
Fynbo, Jens	(IME-AAU)	Ph.D. student
Gersborg-Hansen, Allan	(MAT)	Ph.D. student
Goltermann, Per		Elected member, Ph.D.
Gravesen, Jens	(MAT)	Associate Professor, Dr.phil.
Gunneskov, Ole		Elected member, Ph.D.
Hammer, Velaja B.		Elected member, Ph.D.
Hansen, John M.	(MEK-FAM)	Associate Professor, Ph.D.
Hansen, Martin O.L.	(MEK-ET)	Associate Professor, Ph.D.
Hansen, Michael R.	(IME-AAU)	Associate Professor, Ph.D.
Hansen, Morten Hartvig		Elected member, Ph.D.
Hansen, Lars Pilegaard	(BT-AAU)	Professor, Ph.D.
Hansen, Per Chr.	(IMM)	Professor, dr.techn.
Hansen, Vagn Lundsgaard	(MAT)	Professor, Ph.D.
Heilskov, Nicolai	(MEK-ET)	Ph.D. student
Henriksen, Christian	(MAT)	Assistant Professor, Ph.D.
Hjorth, Poul	(MAT)	Associate Professor, Ph.D.
Hjort, Søren	(MEK-ET)	Ph.D. student
Hoffman, Mark	(IMM)	Ph.D. student
Hougaard, Peter		Elected member, Ph.D.
Høgsberg, Jan	(MEK-SKK)	Ph.D. student
Jacobsen, Michael	(IMM)	Ph.D. student
Jensen, Daniel K.	(IME-AAU)	Ph.D. student
Jensen, Henrik Myhre	(BT-AAU)	Professor, dr. techn.
Jensen, Jakob S.	(MEK-FAM)	Associate Professor, Ph.D.
Jensen, Jarl	(MEK-FAM)	Associate Professor, HD
Jensen, Jørgen Juncher	(MEK-SKK)	Professor, dr.techn.
Jensen, Lars R.	(IME-AAU)	Ph.D. student
Kallesøe, Bjarne S.	(MEK-FAM)	Ph.D. student
Karamehmedovic, Miza	(MAT)	Ph.D. student
Kawamoto, Atsushi	(MAT)	Ph.D. student
Kepler, Jørgen A.	(IME-AAU)	Associate Professor, Ph.D.
Kildegaard, Arne	(IME-AAU)	Professor, Ph.D.
Kliem, Wolfhard	(MAT)	Associate Professor
Knudsen, Thomas S.		Elected member, Ph.D.

Krenk, Steen	(MEK-SKK)	Professor, dr. techn.
Kühlmeier, Lennart	(IME-AAU)	Ph.D. student
Lade, Poul V.		Elected member, Professor
Larsen, Jesper		Elected member, Ph.D.
Larsen, Mikael	(IME-AAU)	Associate Professor, Ph.D.
Larsen, Peter V.	(IMM)	Ph.D. student
Larsen, P. Scheel	(MEK-ET)	Professor, Ph.D.
Legarth, Brian N.	(MEK-FAM)	Assistant Professor, Ph.D.
Lind-Nielsen, Birger		Elected member, Ph.D.
Lund, Erik	(IME-AAU)	Associate Professor, Ph.D.
Lyckegaard, Anders	(IME-AAU)	Assistant Professor, Ph.D.
Lützen, Marie	(MEK-SKK)	Assistant Professor, Ph.D.
Madsen, Kaj	(IMM)	Professor, dr.techn.
Madsen, Per	(MEK-SKK)	Professor, dr.techn.
Markvorsen, Steen	(MAT)	Professor, Ph.D.
Mayer, Stefan	(IMM)	Assistant Professor, Ph.D.
Melnik, Roderick V.N.		Elected member, Professor
Meyer, Knud Erik	(MEK-ET)	Associate Professor, Ph.D.
Michelsen, Jess	(MEK-ET)	Associate Professor
Mikkelsen, Lars P.		Elected member, Ph.D.
Mikkelsen, Robert	(MEK-ET)	Ph.D. student
Mohr, Gunnar	(MAT)	Professor
Mouritsen, Ole Ø.	(IME-AAU)	Associate Professor
Møller, Henrik	(IME-AAU)	Assistant Professor, Ph.D.
Mørch, K.A.		Elected member, Ph.D.
Nielsen, H. Bruun	(IMM)	Associate Professor, Ph.D.
Nielsen, Jan B.		Elected member, Ph.D.
Nielsen, Leif Otto		Elected member, Asso. Prof. Ph.D.
Nielsen, N.-J. Rishøj		Elected member, Ph.D.
Nielsen, Peter V.	(BT-AAU)	Professor, Ph.D.
Nielsen, Søren R.K.		Elected member, Prof., dr.techn.
Nielsen, Ulrik D.	(MEK-SKK)	Ph.D. student
Niordson, Christian	(MEK-FAM)	Associate Professor, Ph.D.
Niordson, Frithiof I.	(MEK-FAM)	Emeritus Professor, Ph.D.
Nygaard, Jens V.	(IME-AAU)	Assistant Professor, Ph.D.
Olhoff, Niels	(IME-AAU)	Professor, dr.techn.
Olsen, Anders Smærup	(MEK-SKK)	Assistant Professor, Ph.D.
Ottosen, Niels Saabye		Elected member, Professor
Overgaard, Lars C.T.	(IME-AAU)	Ph.D. student
Pedersen, Michael	(MAT)	Associate Professor, Ph.D.
Pedersen, Niels L.	(IME-AAU)	Associate Professor, Ph.D.
Pedersen, Ole Bøcker		Elected member, dr.techn.
Pedersen, Pauli	(MEK-FAM)	Professor, dr.techn., HD
Pedersen, P. Terndrup	(MEK-SKK)	Professor, Ph.D.
Pedersen, Sine L.	(MEK-FAM)	Ph.D. student
Pedersen, Thomas Ørts		Elected member, Ph.D.
Perram, John W.		Elected member, Professor
Perunovic, Jelena Vidic	(MEK-SKK)	Ph.D. student
Petersen, Thomas		Elected member, Ph.D.
Pommer, Christian	(MAT)	Professor

Pyrz, Ryszard W.	(IME-AAU)	Professor, dr.techn.
Rasmussen, John	(IME-AAU)	Associate Professor, Ph.D.
Rathkjen, Arne	(BT-AAU)	Associate Professor, Ph.D.
Rauhe, Jens Chr.	(IME-AAU)	Ph.D. student
Ravn, Erik S.	(MEK-SKK)	Assistant Professor
Ravn-Jensen, Kim		Elected member, Ph.D.
Reck, Mads	(MEK-ET)	Assistant Professor
Redanz, Pia	(MEK-FAM)	Associate Professor, Ph.D.
Richelsen, Ann Bettina	(MEK-FAM)	Associate Professor, Ph.D.
Rosbjerg, Dan		Elected member, Professor, dr.techn.
Rüdinger, Finn	(MEK-SKK)	Assistant Professor, Ph.D.
Røgen, Peter	(MAT)	Assistant Professor, Ph.D.
Santos, Ilmar Ferreira	(MEK-FAM)	Associate Professor, Dr.-Ing.
Schjødt-Thomsen, Jan	(IME-AAU)	Associate Professor, Ph.D.
Shen, Wen Zhong	(MEK-ET)	Associate Professor
Sigmund, Ole	(MEK-FAM)	Professor, dr.techn.
Simonsen, Bo Cerup	(MEK-SKK)	Associate Professor, Ph.D.
Skovgaard, Ove	(MAT)	Professor, Ph.D.
Sorokin, Sergey	(IME-AAU)	Professor, Ph.D.
Stang, Henrik		Elected member, Asso. Prof. Ph.D.
Stegmann, Jan	(IME-AAU)	Ph.D. student
Sterndorff, Martin J.		Elected member, Ph.D.
Stolpe, Mathias	(MAT)	Assistant Professor, tech. dr.
Stoustrup, Jakob		Elected member, Professor
Sumer, B. Mutlu	(MEK-SKK)	Professor
Svensson, E.		Elected member, Ph.D.
Svensson, Staffan	(BT-AAU)	Associate Professor, Ph.D.
Søndergaard, Peter	(MAT)	Ph.D. student
Sørensen, Dan N.	(MEK-ET)	Associate Professor, Ph.D.
Sørensen, Jens Nørkær	(MEK-ET)	Professor, Ph.D.
Sørensen, John D.	(BT-AAU)	Associate Professor, Ph.D.
Sørensen, Mads P.	(MAT)	Associate Professor, Ph.D.
Sørensen, Niels Jakob		Elected member, Ph.D.
Thoft-Christensen, Palle	(BT-AAU)	Emeritus Professor, dr.techn.
Thomsen, Jon Juel	(MEK-FAM)	Associate Professor, dr.techn.
Thomsen, Ole Thybo	(IME-AAU)	Professor, Ph.D.
Thomsen, P. Grove	(IMM)	Professor
Thomsen, Thomas	(IME-AAU)	Ph.D. student
True, Hans	(IMM)	Associate Professor, Ph.D.
Tvergaard, Viggo	(MEK-FAM)	Professor, dr.techn.
Törnqvist, Rikard	(MEK-SKK)	Ph.D. student
Ullum, Thorvald	(MEK-ET)	Ph.D. student
Widell, K.E.		Elected member, Professor
Wolff, Stefan	(MAT)	Ph.D. student
Zee, Mark de	(IME-AAU)	Assistant Professor, Ph.D.
Zhang, Haiwen	(MEK-SKK)	Ph.D. student
Østergaard, Rasmus	(MEK-FAM)	Ph.D. student