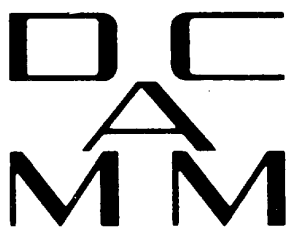


# **DANISH CENTER FOR APPLIED MATHEMATICS AND MECHANICS**

## **ANNUAL REPORT 2013**



**TECHNICAL UNIVERSITY OF DENMARK -  
AALBORG UNIVERSITY - AARHUS UNIVERSITY –  
UNIVERSITY OF SOUTHERN DENMARK**

# DANISH CENTER FOR APPLIED MATHEMATICS AND MECHANICS

## Scientific Council as of January 2014

|                         |   |
|-------------------------|---|
| Morten Brøns            | DTU Compute   |
| Allan P. Engsig-Karup   | DTU Compute   |
| Anton Evgrafov          | DTU Compute   |
| Michael Havbro Faber    | DTU Civil Engineering                               |
| Jesper Henri Hattel     | Dept. of Mechanical Engineering, DTU                |
| Jan Høgsberg            | Dept. of Mechanical Engineering, DTU                |
| Henrik Myhre Jensen     | Dept. of Engineering, AU                            |
| Martin Heide Jørgensen  | Dept. of Mechanical Engineering, AAU                |
| Erik Lund               | Dept. of Mechanical Engineering, AAU                |
| Lars Pilgaard Mikkelsen | DTU Wind Energy                                     |
| Søren R.K. Nielsen      | Dept. of Civil Engineering, AAU                     |
| Christian Niordson      | Dept. of Mechanical Engineering, DTU                |
| Pauli Pedersen          | Dept. of Mechanical Engineering, DTU                |
| Jens Starke             | DTU Compute   |
| Mathias Stolpe          | DTU Wind Energy                                     |
| Achim Schroll           | Department of Mathematics and Computer Science, SDU |
| Jens Nørkær Sørensen    | DTU Wind Energy                                     |
| Jens H. Walther         | DTU Mechanical Engineering                          |

## Chairman

Christian F. Niordson, Associate Professor  
Department of Mechanical Engineering, Solid Mechanics.  
Nils Koppels Allé, Building 404  
Technical University of Denmark  
2800 Kgs. Lyngby, Denmark  
cn@mek.dtu.dk

## FOREWORD

This 2013 annual report contains information on publications, seminars and guests. The report mainly serves as a reference and documentation for accomplished activities. Detailed information is available on our homepage [www.dcammm.dk](http://www.dcammm.dk) and on the homepages of the cooperating departments.

This year's Annual Speaker Seminar was given by Professor Gaëtan Kerschen from University of Liège, Belgium under the title "Natural Frequencies and Normal Modes of Nonlinear Aerospace Structures". Furthermore, a total of 7 DCAMM seminars were held in 2013 and 12 courses were given under the auspices of DCAMM.

The 14<sup>th</sup> bi-annual internal DCAMM Symposium was held 13 – 15 March, 2013 at Best Western Nyborg Strand, Nyborg, with 94 participants. Furthermore, the international symposium "New Horizons in Materials Mechanics" was held 5 – 7 June, 2013 at Hotel Frederiksdal with 76 participants from 15 countries in honour of the 70<sup>th</sup> birthday of Professor Viggo Tvergaard.

As of 1 January 2014, the departments cooperating in DCAMM are:

from the **Technical University of Denmark**:

DTU Civil Engineering  
DTU Compute  
DTU Mechanical Engineering  
DTU Wind Energy

from **Aalborg University**:

Department of Civil Engineering  
Department of Mechanical and Manufacturing Engineering

from **Aarhus University**

Department of Engineering

from **University of Southern Denmark**

Department of Mathematics and Computer Science

In the future it is the aim to further increase the activities in DCAMM, and to increase the support of the core activities of the Center. To this end the Scientific Council has decided to offer financial support to travel expenses for DCAMM Seminar holders as well as support to DCAMM courses. Furthermore, it has been decided that DCAMM may support a few conferences and symposia each year. I hope that this will be helpful for our members, and that our research field will benefit from this.

I thank all the members of DCAMM both in industry and academia, as well as our international contacts for their support and inspiration, and I look forward to our future continued collaboration.

Christian Niordson

**CONTENTS**

|  | page   |
|--|--------|
| 1. Members 2013                                  | 3      |
| 2. Foreign members                               | 3      |
| 3. Guests for extended periods in 2013           | 5      |
| 4. Publications                                  | 7      |
| 4a. International journals with peer review 2013 | 7      |
| 4b. Books  | 44     |
| 5. List of DCAMM S-reports (from no. S108)       | 46     |
| 6. Other Theses                                  | 50     |
| 7. DCAMM seminars given in 2013                  | 54     |
| 8. DCAMM courses                                 | 55     |
| <br>Appendix: List of members                    | <br>56 |

## 1. MEMBERS 2013

58 professors  
200 scientific members  
185 PhD students

} at the eight cooperating departments at the Center

31 elected members  
8 foreign members

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

## 2. FOREIGN MEMBERS

Professor G.I. Barenblatt  
Department of Mathematics  
University of California, Berkeley  
970 Evens Hall # 3840  
Berkeley, CA 94720-3840  
USA

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

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

Professor Michael S. Longuet-Higgins  
Department of Applied Mathematics and Theoretical Physics  
University of Cambridge  
UK

Professor Ole Secher Madsen  
Ralph M. Parsons Laboratory  
Massachusetts Institute of Technology  
Cambridge, MA 02139  
USA

Professor Alan Needleman  
Department of Materials Science & Engng.  
University of North Texas  
1155 Union Circle  
305310 Denton, TX 76203-5017  
USA

Professor S. Nemat-Nasser  
The UCSD Jacobs School of Engineering  
Center of Excellence for Advanced Materials  
4209 Engineering Building I  
9500 Gilman Drive  
La Jolla, CA 92093  
USA

Professor Bertil Storåkers  
Kungliga Tekniska Högskolan  
S-100 44 Stockholm 9500  
Sweden

### 3. GUESTS FOR EXTENDED PERIODS IN 2013 (more than a fortnight)

#### **Guest professors & post docs:**

Baykal, Cuneyt, METU, Ankara, Turkey, 1.1.13 – 19.6.13

Carlsson, Leif A., Florida Atlantic University, USA, 1.5.13 – 31.5.13

Chen, Yongqiang, Qingshuihe Campus, Chengdu, Sichuan, China, 1.9.13 – 31.8.14

Gaididei, Yuri, Kiev, Ukraine, 1.5.13 – 30.6.13

Hutchinson, John, Harvard University, USA, 15.5.13 – 15.1.2014

Jeltsch, Rolf, ETH Zürich, 15.4.13 – 31.5.13

Martins, Paolo, University of Lissabon, Portugal, 1.4.13 – 30.6.13

Thouless, Michael, University of Michigan, USA, 15.5.13 – 15.7.13

Verster, Andréhette, Univ. of the Free State, Bloemfontein, South Africa, 15.10.13 – 31.10.13

Wei, Li, National Institute of Metrology, China, 13.5.13 – 7.7.13

Yuanliu, Chen, Tohoku University, Japan, 27.1.13 – 25.2.13

Zan, Xiang, Hefei University of Technology, China, 10.6.13 – 30.6.14

#### **PhD students**

Alves, Marco, Federal University of Uberlândia, Brazil, 16.9.13 – 2.7.14

Becker, Sarah, University of Frankfurt, Germany, 18.2.13 – 1.3.13 & 30.9.13 – 11.10.13.

Benato, Alberto, University of Padova, Italy, 1.10.13 – 31.3.14

Böhm, Michael, FE-Design, Germany, 2.4.13 – 30.4.13

Ji, Xinran, Dalian University, China, 1.9.13 – 30.9.13

Leon, Daniel, Universidade Federal do Rio Grande do Sul, 1.11.13 – 31.7.14

Menuzzi, Odair, Federal University of Rio Grande do Sul, Brazil, 1.11.13 – 30.4.14

Padoin, Eduardo, Federal University of Rio Grande do Sul, Brazil, 1.11.13 – 30.4.14

Rodias, Euthimis, Agricultural University of Athens, Greece, 15.10.12 – 15.1.13

Simmons, Gregory, Luleå University of Technology, Sweden, 4.2.13 – 15.3.13

Tieppo, Rafael Cesar, Universidade de São Paulo, USP, Brazil, 15.10.13 – 15.7.14

Triesto, Gianluca, University of Padova, Italy, 5.8.13 – 29.11.13



## 4. PUBLICATIONS IN 2013

### 4A. INTERNATIONAL JOURNALS WITH PEER REVIEW

Ambat, R.

Corrosion reliability of electronic devices. *Corrosion Engineering, Science and Technology*, (2013), 48(6), 408.

Elisseeva, O.V.; Bruhn, A.; Cerezo, J.; Mavinkurve, A.; Rongen, R.T.H., O'Halloran, G.M.; Ambat, R.; Terry, H.; Mol, J.M.C.

Novel electrochemical approach to study corrosion mechanism of Al-Au wire-bond pad interconnections, (2013), 48(6), 409-417.

Andersen, I.M.V.

Wind loads on post-panamaz container ship. *Ocean Engineering*, (2013), 58, 115-134.

Andersen, M.; Vinther, F.; Ottesen, J.T.

Mathematical modeling of the hypothalamic-pituitary-adrenal gland (HPA) axis, including hippocampal mechanisms. *Mathematical Biosciences*, (2013), 1, 122-138.

Glintborg, D.; Christensen, L.L.; Kvorning, T.; Larsen, R.; Brixen, K.; Hougaard, D.M., Richelsen, B.; Bruun, J.M.; Andersen, M.

Strength training and testosterone treatment have opposing effects on migration inhibitor factor levels in ageing men. *Mediators of Inflammation*, (2013), 7.

Andersen, M.S.; Mellon, S.; Grammatopoulos, G.; Gill, H.

Evaluation of the accuracy of three popular regression equations for hip joint centre estimation using computerized tomography measurements for metal-on-metal hip resurfacing arthroplasty patients. *Gait & Posture*, (2013), 38(4), 1044-1047.

Mellon, S.; Grammatopoulos, G.; Andersen, M.S.; Pegg, E.; Pandit, H.; Murray, D, Gill, H.

Individual motion patterns during gait and sit-to-stand contribute to edge-loading risk in metal-on metal hip resurfacing. *Institution of Mechanical Engineers. Proceedings. Part H: Journal of Engineering in Medicine*, (2013), 227(7), 799-810.

Madsen, Søren; Andersen, Lars Vabbersgaard; Ibsen, Lars Bo

Numerical Buckling Analysis of Large Suction Caissons for Wind Turbines on Deep Water. *Engineering Structures*, (2013), 57, 443-452.

Andersen, S.J.; Sørensen, J.N.; Mikkelsen, R.F.

Simulation of the inherent turbulence and wake interaction inside an infinitely long row of wind turbines. *Journal of Turbulence*, (2013), 14(4), 1-24.

Andreasen, C.S.; Sigmund, O.

Topology optimization of fluid-structure-interaction problems in proelasticity. *Computer Methods in Applied Mechanics and Engineering*, (2013), 258, 55-62.

Andreassen, E.; Jensen, J.S.

Analysis of phononic bandgap structures with dissipation. *Journal of Vibration and Acoustics*, (2013), 135(4).

Ashouri Vajari, D.; Legarth, B.N.; Niordson, C.F.

Micromechanical modeling of inidirectional composites with uneven interfacial strengths. *European Journal of Mechanics A – Solids*, (2013), 42, 241-250.

Azizi, R.; Legarth, B.N.; Niordson, C.F.

A new macroscopically anisotropic pressure dependent yield function for metal matrix composite based on strain gradient plasticity for the microstructure. *Journal of the Mechanics and Physics of Solids*, (2013), 62(4), 991-1009.

Chen, W.; Jiang, J.; Liu, J.; Bai, S.; Chen, W.

A passive eddy current damper for vibration suppression of a force sensor. *Journal of Physics D: Applied Physics*, (2013), 46(7), 1-11.

Hyl Dahl, P.C.; Mikkola, A.; Balling, O.

A thin plate element based on the combined Arbitrary Lagrange-Euler and Absolute Nodal Coordinate Formulations. *Journal of Multi-Body Dynamics*, (2013), 227(3), 211-219.

Bang-Jensen, J.; Simonsen, S.

Arc-disjoint paths and trees in 2-regular digraphs. *Discrete Applied Mathematics*, (2013), 161(16-17), 2724-2730.

Bang-Jensen, J.; Simonsen, S.

Partitioning the arcs of a digraph into a star forest of the underlying graph with prescribed orientation properties. *Theoretical Computer Science*, (2013), 475, March.

Bang-Jensen, J.; Maddaloni, A.; Simonsen, S.

Quasi-hamiltonian paths in semicomplete multipartite digraphs. *Discrete Applied Mathematics*, (2013), 161(7-8), 889-898.

Baran, I.; Hattel, J.H.; Tutum, C.C.

3D thermo-chemical-mechanical analysis of the pultrusion process. *Risoe International Symposium on Materials Science. Proceedings*, (2013), 34, 169-176.

Baran, I.; Carlone, P.; Hattel, J.H.; Palazzo, G.S.

Numerical and semi-analytical modelling of the process induced distortions in pultrusion. *Risoe Internationaional Symposium on Materials Science. Proceedings*, (2013), 34, 161-168.

Baran, I.; Tutum, C.C.; Nielsen, M.W.; Hattel, J.H.

Process induced residual stresses and distortions in pultrusion. *Composites Part B: Engineering*, (2013), 51, 148-161.

Baran, I.; Tutum, C.C.; Hattel, J.H.

The effect of thermal contact resistance on the thermosetting pultrusion process. *Composites Par B: Engineering*, (2013), 45(1), 995-1000.

Baran, I.; Tutum, C.C.; Hattel, J.H.

The Internal Stress Evaluation of Pultruded Blades for a Darrieus Wind Turbine. *Key Engineering Materials*, (2013), 554-557, 2127-2137.

Baran, I.; Hattel, J.H.; Tutum, C.C.

Thermo-Chemical Modelling Strategies for the Pultrusion Process. *Applied Composite Materials*, (2013), 20, 1247-1263.

Carlone, P.; Baran, I.; Hattel, J.H.; Palazzao, G.S.

Computational Approaches for Modeling the Multiphysics in Pultrusion Process. *Advances in Mechanical Engineering*, (2013) 14.

Tutum, C.C.; Baran, I.; Hattel, J.H.

Utilizing multiple objectives for the optimization of the pultrusion process based on a thermo-chemical simulation. *Key Engineering Materials*, (2013), 554-557, 2165-2174.

Barh, D.; Gupta, K.; Jain, N.; Khatri, G.; Ldón-Sicairos, N.; Canizalez-Roman, A.; Tiwari, S.; Verma, A.; Rahangdale, S.; Shah Hassan, S.; dos Santos, A.R.; Ali, A.; Guimarães, L.C.; Thiago Jucá Ramos, R.; Devarapalli, P.; Barne, N.; Bakhtiar, M.; Kumavath, R.; Ghosh, P.; Miyoshi, A.; Silva, A.; Kumar, A.; Misra, A.N.; Blum, K.; Baumbach, J.; Azevedo, V.

Conserved host-pathogen PPIs. Globally conserved inter-species bacterial PPIs based conserved host-pathogen interactome derived novel target in *C. pseudotuberculosis*, *C. diphtheriae*, *M. tuberculosis*, *C. ulcerans*, *Y. pestis*, and *E. coli* targeted by Piper betel compounds. *Integrative Biology*, (2013), 5(3), 495-509.

Hauschild, A-C.; Kopczyński, D.; Addario, M.; Baumbach, J.I.; Rahmann, S.;

Baumbach, J.

Peak Detection method Evaluation for Ion Mobility Spectrometry by Using Machine Learning Approaches. *Metabolites*, (2013), 3(2), 277-293.

Jungwirth, B.; Sala, C.; Kohl, T.A., Uplekar, S.; Baumbach, J.; Cole, S.T.; Pühler, A.; Tauch, A.

High-resolution detection of DNA binding sites of the global transcriptional regulator GlxR in *Corynebacterium glutamicum*. *Microbiology (Reading, England)*, (2013), 159, Pt 1, 12-22.

Röttger, R.; Kalaghatgi, P.; Sun, P.; Soares, S.D.C.; Azevedo, V.; Wittkop, T.;

Baumbach, J.

Density parameter estimation for finding clusters of homologous proteins-tracing actinobacterial pathogenicity lifestyles. *Bioinformatics (Online)*, (2013), 29(2), 215-222.

Santos, A.R.; Pereira, V.B.; Barbose, E.; Baumbach, J.; Pauling, J.; Rottger, R.; Turk, M.Z.; Silva, A.; Miyoshi, A.; Azevedo, V

Mature Epitope Density – A strategy for target selection based on immunoinformatics and exported prokaryotic proteins. *BMC Genomics*, (2013), 14, suppl. 6, 1-11.

Schneider, T.; Hauschild, A-C.; Baumbach, J.I.; Baumbach, J.  
An integrative clinical database and diagnostics platform for biomarker identification  
an analysis in ion mobility spectra of human exhaled air. *Journal of integrative  
bioinformatics*, (2013), 10(2).

Zakharkina, \*T.; Heinzl, E.; Koczulla, R.A.; Greulich, T.; Rentz, K.; Pauling, J.K.;  
Baumbach, J.; Herrmann, M.; Grünwald, C.; Dienemann, H.; von Müller, L.; Bais,  
R.  
Analysis of the Airway Microbiota of Healthy Individuals and Patients with Chronic  
Obstructive Pulmonary Disease by T-RFLP and Clone Sequencing. *PloS one*, (2013),  
8(7).

Ceron, E.; Bay, N.  
A Methodology for Off-line Evaluation of New Environmentally Friendly Tribo-  
Systems for Sheet Metal Forming. *CIRP Annals – Manufacturing Technology*,  
(2013), 62, 231-234.

Ceron, E.; Bay, N.  
Determination of friction in sheet metal forming by means of simulative tribo-tests.  
*Key Engineering Materials*, (2013), 549, 415-422.

Mori, K.; Bay, N.; Fratini, L. Micari, F.; Tekkaya, A.E.  
Joining by plastic deformation. *CIRP Annals – Manufacturing Technology*, (2013),  
62, 673-694.

Beelen, P.; Ruano, D.  
Bounding the number of points on a curve using a generalization of Weierstrass  
semigroups. *Designs, Codes and Cryptography*, (2013), 66(1-3), 221-230.

Beelen, P.; Brøns, M.; Krishnamurthy, V.S.; Stremmer, M.A.  
Recent progress in the relative equilibria of point vortices – In memoriam Hassan  
Aref. *IUTAM Procedia*, (2013), 7, 3-12.

Beelen, P.; Høholdt, T.; Nielsen, J.S.R.; Wu, Y.  
On Rational Interpolation-Based List-Decoding and List-Decoding Binary Goppa  
Codes. *IEEE Transactions on Information Theory*, (2013), 59(6), 3269-3281.

Kardomateas, G.A.; Berggreen, C.; Carlsson, L.A.  
Energy-release rate and mode mixity of face/core debonds in sandwich beams. *AIAA  
Journal*, (2013), 51(4), 885-892.

Moslemian, R.; Berggreen, C.  
Interface fatigue crack propagation in sandwich X-joints – Part I: Experiments.  
*Journal of Sandwich Structures and Materials*, (2013), 15(4), 429-450.

Moslemian, R.; Berggreen, C.  
Interface fatigue crack propagation in sandwich X-joints – Part II: Finite element  
modeling. *Journal of Sandwich Structures and Materials*, (2013), 15(4), 451-463.

Yang, Z.; Liu, S.; Bingham, H.B.; Li, J.

Second-order theory for coupling 2D numerical and physical wave tanks: Derivation, evaluation and experimental validation. *Coastal Engineering*, (2013), 71, 37-51.

Bissacco, G.; Tristo, G.; Hansen, H.N.; Valentincic, J.

Reliability of electrode wear compensation based on material removal per discharge in micro EDM milling. *C I R P Annals*, (2013), 61(1), 179-182.

Sabotin, I.; Tristo, G.; Bissacco, G.; Valentincic, J.

Optimization of Grooved Micromixer for Microengineering Technologies. *Informacije MIDEM*, (2013), 43, PART 1, 3-13.

Brander, D.; Svensson, M.

The geometric Cauchy problem for surfaces with Lorentzian harmonic Gauss maps. *Journal of Differential Geometry*, (2013), 93(1), 37-66.

Brander, D.; Svensson, M.

Timelike constant Mean Curvature Surfaces with Singularities. *Journal Geometric Analysis*, (2013).

Kim, Taeseong; Hansen, Anders Melchior; Branner, Kim

Development of an anisotropic beam finite element for composite wind turbine blades in multibody system. *Renewable Energy*, (2013), 59, 172-183.

Hansen, J.Z.; Brøndsted, P.

Determination of the minimum size of a statistical representative volume element from a fibre-reinforced composite based on point pattern statistics. *Scripta Materialia*, (2013), 68, 503-505.

Hansen, J.Z.; Brøndsted, P.

Quantitative study on the statistical properties of fibre architecture of genuine and numerical composite microstructures. *Composites Part A: Applied Science and Manufacturing*, (2013), 47, 124-134.

Hansen, J.Z.; Brøndsted, P.; Gillespie Jr.; J.W.

Fatigue damage propagation in unidirectional glass fibre reinforced composites made of a non-crimp fabric. *Journal of Composite Materials*, (2013).

Pupurs, A.; Goutianos, S.; Brøndsted, P.; Varna, J.

Interface debond crack growth in tension-tension cyclic loading of single fiber polymer composites. *Composites Part A: Applied Science and Manufacturing*, (2013), 44, 86-94.

Hourigan, K.; Rao, Al; Brøns, M.; Leweke, T.; Thompson, M.C.; Yaojun Ge, S.C.

Vorticity generation and wake transition for a translating circular cylinder: Wall proximity and rotation effects. *Journal of Wind Engineering & Industrial Aerodynamics*, (2013), (122), 2-9.

Dam, M.; Brøns, M.; Juul Rasmussen, J.; Naulin, V.; Xu, G.  
Bifurcation Analysis and Dimension Reduction of a Predator-Prey Model for the L-H Transition. *Physics and Plasmas*, (2013), 20(10).

Castagnet, Damien; Couchman, Ian; Poulsen, Niels Kjølstad; Buhl, Thomas; Wedel-Heinen, Jens Jakob.  
Frequency-Weighted Model Predictive Control of Trailing Edge Flaps on a Wind Turbine Blade. *IEEE Transactions on Control Systems Technology*, (2013), 21(4), 1105-1116.

Réthoré, P-E.; Fuglsang, P.; Larsen, G.C.; Buhl, T.; Larsen, T.J.; Aagaard Madsen, H.  
TOPFARM: Multi-fidelity optimization of wind farms. *Wind Energy*, (2013).

Bureau, E.; Schilder, F.; Santos, I.; Thomsen, J.J.; Starke, J.  
Experimental bifurcation analysis of an impact oscillator – Tuning a non-invasive control scheme. *Journal of Sound and Vibration*, (2013), 322(22), 5883-5897.

Cerda, A.; Bjerregaard Nielsen, B.; Santos, I.  
Steady state characteristics of a tilting pad journal bearing with controllable lubrication: Comparison between theoretical and experimental results. *Tribology International*, (2013), 58(1), 85-97.

Christensen, E.D.; Johnson, M.; Sørensen, O.R.; Hassager, C.B.; Badger, M.; Larsen, S.E.  
Transmission of wave energy through an offshore wind turbine farm. *Coastal Engineering*, (2013), 82, 25-46.

Christensen, O.; Kim, H.O.; Kim, R.Y.  
Extensions of Bessel Sequences to Dual Pairs of Frames. *Applied and Computational Harmonic Analysis*, (2013), 34(2), 224-233.

Christensen, O.; Kim, H.O.; Kim, R.Y.  
Regularity of Dual Gabor Windows. *Abstract and Applied Analysis*, (2013), (8).

Christensen, O.; Osgooei, E.  
On frame properties for Fourier-like systems. *Journal of Approximation Theory*, (2013), 172, 47-57.

Christensen, O.; Xiao, X. C.; Zhu, Y.A.  
Characterizing R-duality in Banach Spaces. *Acta Mathematica Sinica*, (2013), 29(1), 75-84.

Christiansen, L.H.; Christensen, O.  
Construction of smooth compactly supported windows generating dual pairs of gabor frames. *Asian-European Journal of Mathematics*, (2013), 6(1).

Potarniche, C-G.; Vuluga, Z.; Christiansen, J.D.C.; Radovici, C.; Kristensen, P.  
Influence of Two Compatibilizers on Clay/PP Nanocomposites Properties. *Polymer Engineering and Science*, (2013), 53(2), 403-409.

Christiansen, T.L.; Somers, M.A.J.

HTPro: Low-temperature Surface Hardening of Stainless Steel. *Advanced Materials & Processes*, (2013), November-December, 52-53.

Christiansen, T.L.; Drouet, M.; Martinavicius, A.; Somers, M.A.J.

Isotope exchange investigation of nitrogen redistribution in expanded austenite. *Scripta Materialia*, (2013), 69(8), 582-585.

Christiansen, P.; Hattel, J.H.; Bay, N.; Alves, L.M.; Martins, P.A.

Open die forging of large shafts with porosity defects – physical and numerical modelling. *Key Engineering Materials*, (2013), 554-557, 2145-2155.

Clausen, Johan

Bearing Capacity of Circular Footings on a Hoek-Brown Material. *International Journal of Rock Mechanics and Mining Sciences*, (2013), 57, 34-41.

Ahrenfeldt, J.; Thomsen, T.; Henriksen, U.B.; Clausen, L.R.

Biomass gasification cogeneration – A review of state of the art technology and near future perspectives. *Applied Thermal Engineering*, (2013), 50, 1407-1417.

Canulescu, S.; Schou, J.; Fæster, S.; Hansen, K.V.; Conseil, H.

Deposition of matrix-free fullerene films with improved morphology by matrix-assisted pulsed laser evaporation (MAPLE). *Chemical Physics Letters*, (2013), 588, 119-123.

Cordtz, R.L.; Schramm, J.; Rabe, R.

Investigating SO<sub>3</sub> Formation from the Combustion of Heavy Fuel Oil in a Four-Stroke Medium Speed Test Engine. *Energy & Fuels*, (2013), 27(10), 6279-6286.

Cordtz, R.L.; Schramm, J.; Andreasen, A.; Eskildsen, S.S.; Mayer, S.

Modeling the Distribution of Sulfur Compounds in a Large Two Stroke Diesel Engine. *Energy & Fuels*, (2013), 27(3), 1652-1660.

Dahl, K.V.; Hald, J.

Identification of Precipitates in an IN792 Gas Turbine Blade after Service Exposure. *Praktische Metallographie*, (2013), 50(6), 432-450.

Tokairin, T.; Dahl, K.V.; Danielsen, H.K.; Grumsen, F.B.; Hald, J.; Sato, T.

Investigation on Long-term Creep Rupture Properties and Microstructure Stability of Fe-Ni based Alloy Ni-23Cr-7W at 700 °C. *Materials Science & Engineering*, (2013), 565, 285-291.

Lambertsen, Søren Heide; Damkilde, Lars; Kristensen, Anders Schmidt; Pedersen, Ronnie

Estimation of Fatigue Life of Laser Welded AISI304 Stainless Steel T-Joint Based on Experiments and Recommendations in Design Codes. *World Journal of Mechanics*, (2013), 3(3), 178-183.

Lambertsen, Søren Heide; Damkilde, Lars; Pedersen, Ronnie  
Experimental Quantification of the Metallurgy changes Activated by Laser Welding  
in AISI 304 Stainless Steel. *Journal of Manufacturing Science and Engineering*,  
(2013).

Hansen, F.Y.; Bruch, L.W.; Dammann, B.  
Atomic scattering from an adsorbed monolayer solid with a helium beam that  
penetrates to the substrate. *Journal of Chemical Physics*, (2013), 138(10).

Danielsen, H.K.; Nunzio, P.E.D.; Hald, J.  
Kinetics of Z-phase Precipitation in 9 to 12 pct Cr Steel. *Metallurgical and Materials  
Transactions A – Physical Metallurgy and Materials Science*, (2013), 44(5), 2445-  
2452.

Ziaran, S.; Darula, R.  
Determination of the State of Wear of High Contact Ratio Gear Sets by Means of  
Spectrum and Cepstrum Analysis. *Journal of Vibration and Acoustics-Transactions of  
the ASME*, (2013), 135(2).

Daviðsdóttir, S.; Canulescu, S., Dirscherl, K.; Schou, J.; Ambat, R.  
Investigation of photocatalytic activity of titanium dioxide deposited on metallic  
substrates by DC magnetron sputtering. *Surface and Coatings Technology*, (2013),  
216, 35-45.

Daviðsdóttir, S.; Dirscherl, K.; Canulescu, S.; Shabadi, R.; Ambat, R.  
Nanoscale surface potential imaging of the photocatalytic TiO<sub>2</sub> films on aluminum. *R  
S C Advances*, (2013), 3(45), 23296-23302.

Debrabant, K.; Jakobsen, E.R.  
Semi-Lagrangian Schemes for Linear and Fully Non-Linear Diffusion Equations.  
*Mathematics of Computation*, (2013), 82(283), 1433-1462.

Jusko, O.; Banreti, E.; Bergmans, R.; De Chiffre, L.; Lassila, A.; Lewis, A.;  
Ramotowski, Z.; Saraiva, F.; Thalmann, R., Tuurner, P.; Zeleny, V.  
Final report on RMO key comparison EURAMET.L-K6: CMM 2-D artifact: ball  
plate. *Metrologia*, (2013), 50(1A).

Santo, L.; Quadrini, F.; De Chiffre, L.  
Forming of shape memory composite structures. *Key Engineering Materials*, (2013),  
554-557, 1930-1937.

Della Morte, M.; Hernandez, P.  
A non-perturbative study of massive gauge theories. *Journal of High Energy Physics*,  
(2013).



Aoki, S.; Aoki, Y.; Bernard, C.; Blum, T.; Colangelo, G.; Della Morte, M.; Dürr, S.; X.El Khadra, A.; Fukaya, H.; Horsley, R.; Kaneko, T.; Jüttner, A.; Laiho, J.; Lellouch, L.; Leutwyler, H.; Lubicz, V.; , Lunghi, E.; Necco, S.; Onogi, T.; Pena, C.; T. Sachrajda, C.; R. Sharpe, S.; Shigemitsu, J.; Simula, S.; Sommer, R.; S. Van de Water, R.; Vladikas, A.; Wenger, U.; Wittig, H.  
Review of lattice results concerning low energy particle physics, (2013), European Physical Journal – Applied Physics.

Drozdov, A.D.; Christiansen, J.D.C.

Constructive equations in finite elasticity of swollen elastomers. International Journal of Solids and Structures, (2013), 50(9), 1494-1504.

Drozdov, A.D.; Klitkou, R.; Christiansen, J.D.C.

Effect of crystalline structure on the mechanical response of polypropylene under cyclic deformation. Journal of Polymer Engineering, (2013), 33(2), 181-190.

Drozdov, A.D.; Christiansen, J.D.C.

Constitutive Modeling of the Mechanical Response of Nanocomposite Hydrogels for Tissue Engineering, (2013), Procedia Engineering, 59, 37-45.

Drozdov, A.D.; Christiansen, J.D.C.

Stress-strain relations for hydrogels under multiaxial deformation. International Journal of Solids and Structures, (2013), 50(22-23), 3570-3585.

Drozdov, A.D.; Christiansen, J.D.C.

Time-Dependent Response of Polypropylene/Clay Nanocomposites Under Tension and Retraction. Polymer Engineering and Science, (2013), 53(5), 931-940.

Drozdov, A.D.; Christiansen, J.D.C.

Volume changes in hydrogels subjected to finite deformations. Mechanics Research Communications, (2013) 50 33-38.

Drozdov, A.D.; Klitkou, R.; Christiansen, J.D.C.

Cyclic viscoplasticity of semicrystalline polymers with Finite Deformations. Mechanics of Materials, (2013), 56, 53-64.

Drozdov, A.D.; Klitkou, R.; Christiansen, J.D.C.

Fading memory of loading history in polypropylene and a polypropylene/clay nanocomposite. Mechanics of Composite Materials, (2013), 49(1), 85-96.

Drozdov, A.D.; Klitkou, R.; Christiansen, J.D.C.

Multi-cycle deformation of semicrystalline polymers: Observations and constitutive modeling. Mechanics Research Communications, (2013), 48, 70-75.

Drozdov, A.D.; Sommer-Larsen, P.; Christiansen, J.D.C.

Self-limiting lithiation of electrode nanoparticles in Li-ion batteries. Journal of Applied Physics, (2013), 144(22).

- Tesauro, A.; Eder, M.A.; Nielsen, M.  
Measurement of local relative displacements in large structures. *Journal of Strain Analysis for Engineering Design*, (2013).
- El-Naaman, S.A.; Nielsen, K.L.  
Observations on Mode I ductile tearing in sheet metals. *European Journal of Mechanics A – Solids*, (2013), 42, 54-62.
- Endelt, B.Ø.; Tommerup, S.; Danckert, J.  
A novel feedback control system – Controlling the material flow in deep drawing using distributed blank-holder force. *Journal of Materials Processing Technology*, (2013), 213(1), 36-50.
- Andersen, S.B.; Enemark, S.; Santos, I.  
Dynamics and stability of rigid rotors levitated by passive cylinder-magnet bearings and driven/supported axially by pointwise contact clutch. *Journal of Sound and Vibration*, (2013), 332(25), 6637-6658.
- Deublein, M.; Schubert, M.; Adey, B.T.; Köhler, J.; Faber, M.H.  
Prediction of road accidents. A Bayesian hierarchical approach. *Accident Analysis & Prevention*, (2013), 51, 274-291.
- Fischer, K.; Virguez, E.; Sánchez-Silva, M.; Faber, M.H.  
On the assessment of marginal life saving costs for risk acceptance criteria. *Structural Safety*, (2013), 44, 37-46.
- Kærgaard, K.H.; Fredsøe, J.  
A numerical shoreline model for shorelines with large curvature. *Coastal Engineering*, (2013), 74, 19-32.
- Kærgaard, K.H.; Fredsøe, J.  
Numerical modeling of shoreline undulations part 1: Constant wave climate. *Coastal Engineering*, (2013), 75, 64-76.
- Kærgaard, K.H.; Fredsøe, J.  
Numerical modeling of shoreline undulations part 2: Varying wave climate and comparison with observations. *Coastal Engineering*, (2013), 75, 77-90.
- Fuhrman, D.R.; Schløer, S.; Sterner, J.  
RANS-based simulation of turbulent wave boundary layer and sheet-flow sediment transport processes. *Coastal Engineering*, (2013), 73, 151-166.
- Chen, J.; Georgakis, C.T.  
Tuned rolling-ball dampers for vibration control in wind turbines. *Journal of Sound and Vibration*, (2013), 332(21), 5271-5282.
- Sarban, R.; Guðlaugsson, T.V.  
Platform based design of EAP transducers in Danfoss PolyPower A/S. *Proceedings of SPIE, the International Society for Optical Engineering*, (2013), 8687.

Godi, A.; Kühle, A.; De Chiffre, L.

A new procedure for characterizing textured surfaces with a deterministic pattern of valley features. *Measurement Science and Technology*, (2013), 24(8).

Godi, A.; Grønbæk, J.; Mohagheg, K.; Klit, P.; De Chiffre, L.

A New Rig for Testing Textured Surfaces in Pure Sliding Conditions. *Tribology Letters*, (2013), 50(3), 397-405.

Godi, A.; Mohagheg, K.; Grønbæk, J.; Klit, P.; De Chiffre, L.

Testing of newly developed functional surfaces under pure sliding conditions. *Tribology Letters* (2013), 51(1), 171-180.

Guðlaugsson, T.V.; Mortensen, N.H.; Sarban R.

EAP high-level product architecture. *Proceeding of SPIE, the International Society for Optical Engineering*, (2013), 8687.

Haider, S.; Schnipper, T.; Obeidat, A.; Meyer, K.E.; Okulov, V.; Walther, J.H.; Mayer, S.

PIV study of the effect of piston position on the in-cylinder swirling flow during the scavenging process in large two-stroke marine diesel engines. *Journal of Marine Science and Technology*, (2013), 18(1), 133-143.

Hansen, C.T.; Lenau, T.A.

A Product Analysis Method and its Staging to Develop Redesign Competences. *Advances in Engineering Education*, (2013), 3(4).

Gish, L.; Hansen, C.T.

A socio-technical analysis of work with ideas in NPD: an industrial case study. *Research in Engineering Design*, (2013), 24, 411-427.

Fantoni, G.; Hansen, H.N.; Santochi, M.

A new capillary gripper for mini and micro parts. *C I R P Annals*, (2013), 62(1), 17-20.

Malshe, A.; Rajurkar, K.; Samant, A.; Hansen, H.N.; Bapat, S.; Jiang, W.

Bio-inspired functional surfaces for advanced applications. *CIRP Annals – Manufacturing Technology*, (2013), 62(2), 607-628.

Gaumond, M.; Réthoré, P-E.; Ott, S.; Pëna, A.; Bechmann, A.; Hansen, K.S.

Evaluation of the wind direction uncertainty and its impact on wake modeling at the Horns Rev offshore wind farm. *Wind Energy*, (2013).

Larsen, G.C.; Hansen, K.S.

De-trending of wind speed variance based on first-order and second-order statistical moments only. *Wind Energy*, (2013).

Larsen, T.J.; Aagaard Madsen, H.; Larsen, G.C.; Hansen, K.S.

Validation of the dynamic wake meander model for loads and power production in the Egmond aan Zee wind farm. *Wind Energy*, (2013), 16(4), 605-624.

- Nwaogu, U.C.; Hansen, K.S.; Tiedje, N.S.  
Design and production of a novel sand materials strength testing machine for foundry applications. *International Foundry Research*, (2013), 64(2).
- Andersen, M.S.; Hansen, P.C.  
Generalized Row-Action Methods for Tomographic Imaging. *Numerical Algorithms*, (2013), 23.
- Hauksdóttir, D.; Mortensen, N.H.  
Identification of a reusable requirements structure for embedded products in a dynamic market environment. *Computers in Industry*, (2013), 64, 351-362.
- Haselbach, P.U.; Natarajan, A.; Jiwinangun, R.G.; Branner, K.  
Comparison of coupled and uncoupled load simulations on a jacket support structure. *Energy Procedia*, (2013), 35, 244-252.
- Schmidt Paulsen, U.; Aagaard Madsen, H.; Hattel, J.H.; Baran, I.; Nielsen, P.H.  
Design Optimization of a 5 MW Floating Offshore Vertical-axis Wind Turbine. *Energy Procedia*, (2013), 35, 22-32.
- Tutum, C.C.; Deb, K.; Hattel, J.H.  
Multi-Criteria Optimization in Friction Stir Welding Using a Thermal Mode with Prescribed Material Flow. *Materials & Manufacturing Processes*, (2013), 28(7), 816-822.
- Klinkvort, R.T.; Heddal, O.  
Lateral response of monopile supporting an offshore wind turbine. *Institution of Civil Engineers. Proceedings. Geotechnical Engineering*, (2013), 166(2), 147.
- Fernández, B.; Henriksen, C.; Farrelly, D.  
Refined ab Initio Intermolecular Ground-State Potential Energy Surface for the He-, C<sub>2</sub>H<sub>2</sub> van der Waals Complex. *Molecular Physics*, (2013), 111(9-11), 1173-1177.
- Munteanu, C.; Henriksen, C.; Felker, P.M.; Fernández, B.  
He-, Ne-, and Ar-phosgene Intermolecular Potential Energy Surfaces. *Journal of Physical Chemistry Part A: Molecules, Spectroscopy, Kinetics, Environment and General Theory*, (2013), 117(18), 3835-3843.
- Howard, T.J.; Andreasen, M.M.  
Mind-sets of functional reasoning in engineering design. *Artificial Intelligence for Engineering Design, Analysis and Manufacturing*, (2013), 27(3), 233-240.
- Nielsen, M.W.; Schmidt, J.W.; Høgh, J.H., Waldbjørn, J.P.; Hattel, J.H.; Løgstrup Andersen, T.; Markussen, C.M.  
Life cycle strain monitoring in glass fibre reinforced polymer laminates using embedded fibre Bragg grating sensors from manufacturing to failure. *Journal of Composite Materials*, (2013), 1-17.

Huang, F.W.D.; Nebel, M.E.; Reidys, C.M.

Generation of RNA pseudoknot structures with topological genus filtration. *Mathematical Biosciences*, (2013), 245(2), 216-225.

Bhowmik, S.; Weber, F.; Høgsberg, J.B.

Experimental calibration of forward and inverse neural networks for rotary type magnetorheological damper. *Structural Engineering and Mechanics*, (2013), 46(5), 673-693.

Damgaard, Mads; Ibsen, Lars Bo; Andersen, Lars Vabbersgaard; K.F. Andersen, Jacob.

Cross-Wind Modal Properties of Offshore Wind Turbines Identified by Full scale Testing. *Journal of Wind Engineering & Industrial Aerodynamics*, (2013) 116(May), 94-108.

Foglia, Aligi; Ibsen, Lars Bo;

A Similitude Theory for Bucket Foundations Under Monotonic Horizontal Load in Dense Sand. *Geotechnical and Geological Engineering*, (2013), 31(1), 133-142.

Larsen, Kim André; Ibsen, Lars Bo; Barari, Amin

Modified Expression for the Failure Criterion of Bucket Foundations Subjected to Combined Loading. *Canadian Geotechnical Journal*, (2013), 50(12), 1250-1259.

Sørensen, Søren Peder Hyldal; Ibsen, Lars Bo

Assesment of Foundation Design for Offshore Monopiles Unprotected against Scour. *Ocean Engineering*, (2013), 63, 17-25.

Sørensen, Søren Peder Hyldal; Ibsen, Lars Bo; Foglia Aligi

Testing of Laterally Loaded Rigid Piles with Applied Overburden Pressure. *International Journal of Offshore and Polar Engineering*, (2013).

Ingvorsen, K.M.; Meyer, K.E.; Walther, J.H.; Mayer, S.

Turbulent swirling flow in a model of a uniflow-scavenged two-stroke engine. *Experiments in Fluids*, (2013), 54(3) art. no. 1494.

Jabbari, M.

Effect of the Preheating Temperature on Process Time in Friction Stir Welding of Al 6061-T6. *Journal of Engineering*, (2013), Article ID 5808055.

Jabbari, M.; Spangenberg, J.; Hattel, J.H.

Interface Behavior in Functionally Graded Ceramics for the Magnetic Refrigeration: Numerical Modeling. *Applied Mechanics and Materials*, (2013), 325-326, 1362-1367.

Jabbari, M.; Spangenberg, J.; Hattel, J.H.

Modeling of the interface behavior in tape casting of functionally graded ceramics for magnetic refrigeration parts. *International Journal of Refrigeration*, (2013), 36(8), 2403-2409.

Jabbari, M.; Hosseinzadeh, A.

Numerical modeling of coupled heat transfer and phase transformation for solidification of the gray cast iron. *Computational Materials Science*, (2013), 68, 160-165.

Jabbari, M.; Hattel, J.H.

Numerical Modeling of the Side Flow in Tape Casting of a Non-Newtonian Fluid. *American Ceramic Society*, (2013), 96(5), 1414-1420.

Jabbari, M.; Tutum, C. C.

Optimum Rotation Speed for the Friction Stir Welding of Pure Copper. *I S R N Materials Science*, (2013).

Jabbari, M.; Bulatova, R.; Hattel, J.H.; Bahl, C.R.H.

Quasi-steady state power law model for flow of  $(La_{0.85}Sr_{0.15})_{0.9}MnO_3$  ceramic slurry in tape casting. *Materials Science and Technology*, (2013), 29(9), 1080-1087.

Jakobsen, J.; Andreasen, J.H.; Thomsen, O.T.

A Comparison of gel point for a Glass/Epoxy Composite and a Neat Epoxy Material during Isothermal Curing. *Journal of Composite Materials*, (2013), 48(2), 1-14.

Jakobsen, J.; Jensen, M.; Andreasen, J.H.

Thermo-Mechanical Characterisation of In-plane Properties for CSM E-glass Epoxy Polymer Composite Materials: Part 1: Thermal and Chemical Strain. *Polymer Testing*, (2013), 32(8), 1350-1357.

Jakobsen, J.; Jensen, M.; Andreasen, J.H.

Thermo-Mechanical Characterisation of In-plane Properties for CSM E-glass Epoxy Polymer Composite Materials: Part 2: Young's Modulus. *Polymer Testing*, (2013), 32(8), 1417-1422.

Jakobsen, K.R.; Vincent, C.L.

Mesoscale modeling of South Greenland. *Geophysical Research Abstracts*, (2013), 15.

Rathinavelu, U.; Jellesen, M.S.; Ambat, R.

Effect of solder flux residue on the performance of silicone conformal coatings on printed circuit board assemblies. *Corrosion Engineering, Science and Technology*, (2013), 48(6), 436-444.

Thyssen, J.P.; Johansen, J.D.; Jellesen, M.S.; Møller, P.; Sloth, J.J.; Zachariae, B.; Menne, T.

Consumer leather exposure: an unrecognized cause of cobalt sensitization. *Contact Dermatitis*, (2013), 69(5), 276-279.

Thyssen, J.P.; Johansen, J.D.; Menné, T.; Jellesen, M.S.

Does cobalt spot testing of copper items result in false-positive test reactions? *Contact Dermatitis*, (2013), 69, 387-388.

Steffensen, S.; Kibsgaard, R. L.; Jensen, H.M.  
Debonding of Particles in Thin Films. *International Journal of Solids and Structures*. (2013).

Steffensen, S.; Madsen, N.D.; Jensen, H.M.  
Numerical estimation of fracture toughness from indentation-induced circumferential cracking in thin films on ductile substrates. *International Journal of Solids and Structures*, (2013), 50(20-21), 3406-3417.

Veluri, B.; Jensen, H.M.  
Modeling Delamination of Interfacial Corner Cracks in Multilayered Structures. *Key Engineering materials*, (2013), 525-526(509), 509-512.

Veluri, B.; Jensen, H.M.  
Steady-state propagation of interface corner crack. *International Journal of Solids and Structures*, (2013), 50(10), 1613-1620.

Soares, C.G.; Jensen, J.J.; Incecik, A.; Downes, J.; Romanoff, J.; Gordo, J.M.; Fricke, W.; Jastrzebski, T.; Hayman, B.; Besnard, N.; Codda, M.; Garbatov, Y, Teixeira, A.P.  
European Research in Marine Structures. *Society of Naval Architects and Marine Engineers Transactions*, (2013), 119(47).

Paz-Garcia, J.M.; Johannesson, B.; Ottosen, L.M.; Ribeiro, A.B.; Rodríguez-Maroto, J.M.  
Computing multi-species chemical equilibrium with an algorithm based on the reaction extents. *Computers and Chemical Engineering*, (2013), 58, 135-143.

Juhl, T.B.  
Forståelse og forbedring af lasersvejsning af plast. *Plat Panorama Scandinavia*, (2013), 6, 14-15.

Juhl, T.B.; Bach, D.; Larson, R.G.; Christiansen, J.D.C.; Jensen, E.A.  
Predicting the laser weldability of dissimilar polymers. *Polymer*, (2013), 54(15), 3891-3897.

Juhl, T.B., Christiansen, J.D.C.; Jensen, E.A.  
Investigation on High Strength Laser Welds of Polypropylene and High-Density Polyethylene. *Journal of Applied Polymer Science*, (2013), 129(5), 2679-2685.

Juhl, T.B.; Christiansen, J.D.C.; Jensen, E.A.  
Mechanical testing of polystyrene/polystyrene laser welds. *Polymer Testing*, (2013), 32(3), 475-481.

Andreassen, M.J.; Jönsson, J.  
A distortional semi-descretized thin-walled beam element. *Thin-Walled Structures*, (2013), 62, 142-157.

Kirkegaard, Poul Henning  
Unfolding Uton: addition and repetition. *A&D Skriftserie*, (2013), 78, 6-9.

Brorson Fich, Lars; Jönsson, Peter; Kirkegaard, Poul Henning; Wallergård, Mattias; Garde, Anne Helene; Hansen, Åse  
Architectural design can alter the physiological reactgion to psychosocial stress; permeability theory predicts differences in cortisol level. *Environment and Behavior* (2013).

Brorson Fich, Lars; Hansen, Åse Marie; Kirkegaard, Poul Henning  
Architecture and the Biology of Consciousness. *A R Q: Architectural Research Quarterly* (2013).

Brorson Fich, Lars; Jönsson, Peter; Kirkegaard, Poul Henning; Wallergård, Mattias; Garde, Anne Helene; Hansen, Åse  
Psychosocial stress can be influenced by architecture; a virtual TSST experiment. *Psychoneuroendocrinology* (2013).

Stidsen, Lone Mandrup; Thuesen, Nielsen; Kirkegaard, Poul Henning  
Mapping Light Atmosphere – Seen through the Danish interior Design magazine BO BEDRE, *Nordic Journal of Architecture*, (2013).

Stidsen, Lone Mandrup; Kirkegaard, Poul Henning; Bjerrum, Henriette  
On Lighting Hopital wards: a cultural approach using light preferences as inspiration for the design concept. *Journal of Interior Design*, (2013).

Tvedebrink, Tenna Doktor Olsen; Fisker, Anna Marie; Kirkegaard, Poul Henning  
Architectural Theatricality: A food design perspective in hospitality studies. *Hospitality & Society*, (2013), 3(3), 189-210.

Tvedebrink, Tenna Doktor Olsen; Fisker, Anna Marie; Kirkegaard, Poul Henning  
Sygdommens Spiserum: Har arkitekturen en overset eller glemt betydning her? *Tidsskrift for forskning i sygdom og samfund*, (2013) 10(18), 21-38.

Kjartansdóttir, C.K.; Nielsen, L.P.; Møller, P.  
Development of durable and efficient elctrodes for large-scale alkaline water electrolysis. *International Journal of Hydrogen Energy*, (2013), 38(20), 8221-8231.

Klonovs, J.; Petersen, C.K.; Olesen, H.; Hammershøj, A.  
ID Proof on the Go: Development of a Mobile EEG-Based Biometric Authentication System. *I E E Vehicular Technology Magazine*, (2013), 8(1), 81-89.

Karamehmedovic, M.; Knudsen, K.  
Inclusion estimation from a single electrostatic boundary measurement. *Inverse Problems*, (2013), 29(2).

Borghoff, J.; Knudsen, L.R.; Thomsen, S.S.  
Slender-Set Differentil Cryptanalysis. *Journal of Cryptology*, (2013), 26(1), 11-38.

Kook, J.; Jensen, J.S.; Wang, S.  
Acoustical topology optimization of Zwicker's loudness with Padé approximation. *Computer Methods in Applied Mechanics and Engineering*, (2013), 255, 40-66.



Krenk, S.

Time-domain analysis of frequency dependent inertial wave forces on cylinders. *Computers and Structures*, (2013), 126, 184-192.

Krenk, S.; Høgsberg, J.

Equal modal damping design for a family of resonant vibration control formats. *Journal of Vibration and Control*, (2013), 19(9), 1294-1315.

Kristensen, S.E.; Drønen, N.; Deigaard, R.; Fredsøe, J.

Hybrid morphological modelling of shoreline response to a detached breakwater. *Coastal Engineering*, (2013), 71, 13-27.

Kristiansen, K.U.; Wulff, C.

Exponential Estimates of Slow Manifolds. *Nonlinearity*, (2013).

Krüger, V.; Herzog, D.

Tracking in Object Action Space. *Computer Vision and Image Understanding*, (2013), 117(7), 764-789.

Kærn, M.R.; Elmegaard, B.; Larsen, L.F.

Comparison of fin-and-tube interlaced and face split evaporators with flow maldistribution and compensation. *International Journal of Refrigeration*, (2013), 36(1), 203-214.

Jansen, M.; Lazarov, B.S.; Shevenels, M.; Sigmund, O.

On the similarities between micro/nano lithography and topology optimization projection methods. *Structural and Multidisciplinary Optimization*, (2013), 48(4), 717-730.

Larsen, U.; Pierobon, L.; Haglind, F.; Gabrielli, C.

Design and optimisation of organic Rankine cycles for waste heat recovery in marine applications using the principles of natural selection. *Energy*, (2013), 55, 803-812.

Larsen, U.; Pierobon, L.; Wronski, J.; Haglind, F.

Multiple regression models for the prediction of the maximum obtainable thermal efficiency of organic Rankine cycles. *Energy*, (2013) 8.

Riisgård, H.U.; Pleissner, D.; Larsen, P.S.; Lundgreen, K.

Growth of mussels *Mytilus edulis* at algal (*Rhodomonas salina*) concentrations below and above saturation level for reduced filtration rate. *Marine Biology Research*, (2013), 9(10), 1005-1017.

Laustsen, S.; Lund, E.; Kühlmeier, L.; Thomsen, O.T.

Development of a High-fidelity Experimental Substructure Test Rig for Grid-scored Sandwich Panels in Wind Turbine Blades. *Strain (Online)*, (2013), 50(2), 111-131.

Lemvig, J.; Miller, C.; Okoudjou, K.A.

Prime tight frames. *Advances in Computational Mathematics*, (2013).

Lemvig, J.; Krahmer, F.; Kutyniok, G.

Sparse Matrices in Frame Theory. Computational Statistics, (2013).

Krahmer, F.; Kutynior, G.; Lemvig, J.

Sparsity and Spectral Properties of Dual Frames. Linear Algebra and Its Applications, (2013), 449(4), 982-998.

Lilholt, H.; Madsen, B.

Natural Composites: Cellulose Fibres and the related Performance of Composites. International Journal of Materials Engineering Innovation, (2013).

Schultz-Jensen, N.; Thygesen, A.; Thomsen, S.T.; Leipold, F.; Roslander, C.; Lilholt, H.; Bjerre, A.B.

Pretreatment of the macroalgae Chaetomorpha linum for the production of bioethanol – Comparison of five pretreatment technologies. Bioresource Technology, (2013), 140, 36-42.

Lomholt, T.N.; Adachi, Y.; da Silva Fanta, A.B.; Pantleon, K.; Somers, M.A.J.

Partial transformation of austenite in Al-Mn-Si TRIP steel upon tensile straining: an in situ EBSD study. Materials Science and Technology, (2013), 29(11), 1383-1388.

Kimiaefar, Amin; Lund, Erik; Thomsen, Ole Thybo, Sørensen, John Dalsgaard

Asymptotic Sampling for Reliability Analysis of Adhesive Bonded Stepped Lap Composite Joints. Engineering Structures, (2013), 49(April), 655-663.

Madsen, B.; Garmsted, E.K.

Wood versus plant fibers: Similarities and differences in composite applications. Advances in Materials Science and Engineering, (2013), 2013, 564346.

Aslan, M.; Mehmood, S.; Madsen, B.

Effect of consolidation pressure on volumetric composition and stiffness of unidirectional flax fibre composites. Journal of Materials Science, (2013) 48, 3812-3824.

Løvdal, A.L.V.; Laursen, L.L.; Løgstrup Andersen, T.; Madsen, B.; Mikkelsen, L.P.M.

Influence of Temperature on Mechanical Properties of Jute/Biopolymer Composites. Journal of Applied Polymer Science, (2013) 128(3), 2038-2045.

Madsen, J.B.; Pakkanen, K.I.; Lee, S.

Investigation of the Thermostability of Bovine Submaxillary Mucin (BSM) and its Impact on Lubrication. APCBEE Procedia, (2013), 7, 21-26.

Mahshid, R.; Hansen, H.N.; Arentoft, M.

Accuracy of transferring microparts in a multi stage former. Key Engineering Materials, (2013), 554-557, 900-907.

Bohr, J.; Markvorsen, S.

Ribbon Crystals. P L o S One, (2013), 8(10).

- Achiche, S.; Appio, F.P.; McAloone, T.C.; Minin, A.D.  
Fuzzy Decision Support for Tools Selection in the Core Front end Activities of New Product Development. *Research in Engineering Design*, (2013), 24, 1-18.
- Antelmi Pigosso, D.C.; Rozenfeld, H.; McAloone, T.C.  
Ecodesign maturity model: a management framework to support ecodesign implementation into manufacturing companies. *Journal of Cleaner Production*, (2013), 59, 160-173.
- Appio, F.P.; Achiche, S.; McAloone, T.C.; Howard, T.J.  
An inquiry on managers use of decision-making tools in the core front end of the innovation process. *International Journal of Product Development*, (2013), 18(6), 461-491.
- Bey, N.; Hauschild, M.Z.; McAloone, T.C.  
Drivers and barriers for implementation of environmental strategies in manufacturing companies. *C I R P Annals*, (2013), 62(1), 43-46.
- Keck, R-E.; Mikkelsen, R.F.; Troldborg, N.; de Maré, M.; Hansen, K.S.  
Synthetic atmospheric turbulence and wind shear in large eddy simulations of wind turbine wakes. *Wind Energy*, (2013).
- Mishnaevsky, L.; Levashov, E.  
Editorial: Selected Publications of the EU FP7 project VIRTUAL NANOTITANIUM. *Computational Materials Science*, (2013), 76, 1-2.
- Mishnaevsky, L.; Zhou, H.W.; Peng, R.D.; Dai, G.; Wang, H.W.  
Polymer Nanocomposites for Wind Energy Applications. Perspectives and Computational Modeling. *Proceedings of the International Conference Nanomaterials: Applications and Properties*, (2013), 2(4).
- Mishnaevsky, L.; Zhou, H.W.; Yi, H.Y.; Peng, R.D.; Wang, H.W.; Dai, G.; Gui, L.L.; Zhang, X.  
Microscale damage mechanisms and degradation of fiber-reinforced composites for wind energy applications: results of Danish-Chinese collaborative investigations. *Journal of Composite Materials*, (2013).
- Dai, G.; Mishnaevsky, L.  
Damage evolution in nanoclay-reinforced polymers. A three-dimensional computational study. *Composites Science and Technology*, (2013), 74, 67-77.
- Liu, H-S.; Mishnaevsky, L.  
Martensitic transformations in nanostructured nitinol: Finite element modeling of grain size and distribution effects. *Computational Materials Science*, (2013), 76, 27-36.
- Zhou, H.W.; Wang, C.P.; Mishnaevsky, L.; Duan, Z.Q.; Ding, J.Y.  
A fractional derivative approach to full creep regions in salt rock. *Mechanics of Time Dependent Materials*, (2013), 17(3), 413-425.

Zhou, H.W.; Li, H.Y.; Gui, L.L.; Dai, G.; Peng, R.D.; Wang, H.W.; Mishnaevsky, L.  
Compressive damage mechanics of GFRP composites under off-axis loading:  
Experimental and numerical investigations. *Composites Part B: Engineering*, (2013),  
55, 119-127.

Mohanty, S.; Tutum, C.C.; Hattel, J.H.

Cellular scanning strategy for selective laser melting: Evolution of optimal grid-based  
scanning path & parametric approach to thermal homogeneity. *Proceedings of SPIE,*  
the International Society for Optical Engineering, (2013), 8608

Montgomery, M.; Hansson, A.N.; Jensen, S.A.; Vilhelmsen, T.; Nielsen, N.H.

In situ corrosion testing of various nickel alloys at Måbjerg waste incineration plant.  
*Materials and Corrosion*, (2013), 64(1), 14-25.

Mortensen, N.H.; Steen Jensen, T.; Nielsen, O.F.

Product Platform Screening at LEGO. *International Journal of Industrial Engineering*,  
(2013), 19(11), 444-455.

Hvam, L.; Haug, A.; Mortensen, N.H.; Thuesen, C.

Observed benefits from product configuration systems. *International Journal of*  
*Industrial Engineering (Online)*, (2013), 20(5-6), 329-338.

Mourtsen, H.; Derbyshire, R.; Sallaeickene, J.; Mouritsen, O.Ø.; Froste, B.J.;  
Norris, D.R.

An experimental displacement and over 50 years of tag-recoveries show that  
monarch butterflies are not true navigators. *Proceeding of the National Academy of*  
*Science of the United States of America*, (2013), 110(18).

Langer, T.H.; Iversen, T.K.; Mouritsen, O.Ø.; Ebbesen, M.K.; Hansen, M.R.

Suspension system performance optimization with discrete design variables.  
*Structural and Multidisciplinary Optimization*, (2013), 47(4), 621-630.

Sørensen, S.E.; Hansen, M.R.; Ebbesen, M.K.; Mouritsen, O.Ø.

Non-linear optimization of track layouts in loop-sorting-systems. *Automation in*  
*Construction*, (2013), 31, 19-30.

Zainali, K.; Danscher, G.; Jakobsen, T.; Baas, J.; Møller, P.; Bechtold, J.E.; Soballe,  
K.

Assessment of modified gold surfaced titanium implants on skeletal fixation. *Journal*  
*of Biomedical Materials Research*, (2013), Part A, 101A(1), 195-202.

Nguyen, T-V.; Pierobon, L.; Elmegaard, B.; Haglund, F.; Breuhaus, P.; Voldsund, M.

Exergetic assessment of energy systems on North Sea oil and gas platforms. *Energy*,  
(2013), 62, 23-36.

Nielsen, C.V.; Fernandes, J.L.; Marting, P.A.F.

All-hexahedral meshing and remeshing for multi-object manufacturing applications.  
*Computer-Aided Design*, (2013), 45(5), 911-922.

Watson, J.; Nielsen, J.H.; Overend, M.

A critical flaw size approach for predicting the strength of bolted glass connections. *Engineering Structures*, (2013), 57, 87-99.

Nielsen, K.L.; Niordson, C.F.

A 2D finite element implementation of the Fleck-Willis strain-gradient flow theory. *European Journal of Mechanics A – Solids*, (2013), 41, 134-142.

Nielsen, P.S.; Nielsen, M.S.; Bay, N.

Size effects in winding roll formed profiles: A study of carcass production for flexible pipes in offshore industry. *Key Engineering Materials*, (2013), 549, 117-124.

Nielsen, Søren R.K.; Zhou, Qiang; Kramer, Morten; Basu, Biswajit; Zhang, Zili  
Optimal Control Of Nonlinear Wave Energy Point Converters. *Ocean Engineering*, (2013), 72 (November), 176-187.

Fitzgerald, B.; Basi, Biswajit; Nielsen, Søren R.K.

Active Tuned Mass Dampers for Control of In-Plane Vibrations of Wind Turbine Blades. *Structural Control and Health Monitoring*, (2013), 20(12), 1377-1396.

Dahlberg, C.F.O.; Faleskog, J.; Niordson, C.F.; Legarth, B.N.

A deformation mechanism map for polycrystals modeled using strain gradient plasticity and interfaces that slide and separate. *International Journal of Plasticity*, (2013), 43, 177-195.

Oztop, M.S.; Niordson, C.F.; Kysar, J.W.

Length-scale effect due to periodic variation of geometrically necessary dislocation densities. *International Journal of Plasticity*, (2013), 41, 189-201.

Nørtoft, P.; Gravesen, J.

Isogeometric shape optimization in fluid mechanics. *Structural and Multidisciplinary Optimization*, (2013), 48(5), 909-925.

Olesen, C.G.

Computermodel med tryksår. *Aktuel Naturvidenskab*, (2013), 1-34-36.

Olesen, C.G.; Pennisi, C.P.; deZee, M.; Zachar, V.; Rasmussen, J.

Elliptical posts allow for detailed control of non-equibiaxial straining of cell cultures. *Journal of Tissue Viability*, (2013), 22(2), 52-56.

Andreasen, J.; Olesen, C.G.; Rasmussen, J.; Nielsen, S.K.; Nguyen, L.; Larsen, P.

Is a computer based measurement method superior to a recommended manual method by the ROHO® Group to assess pressure in the sitting position? *Australian Occupational Therapy Journal*, (2013), 60, 350-355.

Olesen, J.F.; Poulsen, P.N.

An embedded crack in a constant strain triangle utilizing extended finite element concepts. *Computers & Structures*, (2013), 117, 1-9.

Niu, B.; Olhoff, N.

Minimization of Vibration Power Transmission from Rotating Machinery to a Flexible Supporting Plate. *International Journal of Structural Stability and Dynamics*, (2013), 14(3).

Omarsson, S.; Dahlblom, O.

Finite element modelling of moisture related and visco-elastic deformations in inhomogeneous timber beams. *Engineering Structures*, (2013), 49, 182-189.

Larsen, F.; Ormarsson, S.

Numerical and experimental study of moisture-induced stress and strain field developments in timber logs. *Wood Science and Technology*, (2013), 47(4), 837-852.

Eshkorr, R.A.; Oshkovr, S.A.; Sulong, A.B.; Zulkifli, R.; Ariffin, A.K.; Azhari, C.H. Effect of trigger configuration on the crashworthiness characteristics of natural silk epoxy composite tubes. *Composites Part B Engineering*, (2013), 55(1), 5-10.

Prabhakaran, R.T.D.; Pillai, S.; Mamani, S.C.; Oshkovr, S.A.; Knudsen, H.; Løgstrup Andersen, T.; Bech, J.I.; Thomsen, O.T.; Lilholt, H.

Effect of Polymer Form and its Consolidation on Mechanical Properties and Quality of Glass/PBT Composites. *Applied Composite Materials*, (2013), 1-24.

Leong, M.K.; Overgaard, L.C.T.; M Daniel, I.; Lund, E.; Thomsen, O.T.

Interlaminar/interfiber failure of unidirectional glass fiber reinforced composites used for wind turbine blades. *Journal of Composite Materials*, (2013), 47, 3), 353-368.

Ng, H.K.; Gan, S.; Ng, J-H.; Pang, K.M.

Development and validation of a reduced combined biodiesel-diesel reaction mechanism. *Fuel*, (2013), 104, 620-634.

Ng, H.K.; Gan, S.; Ng, J-H.; Pang, K.M.

Simulation of biodiesel combustion in a light-duty diesel engine using integrated compact biodiesel-diesel reaction mechanism. *Applied Energy*, (2013), 102, 1275-1287.

Poon, H.M.; Ng, H.K.; Gan, S.; Pang, K.M.; Schramm, J.

Evaluation and Development of Chemical Kinetic Mechanism Reduction Scheme for Biodiesel and Diesel Fuel Surrogates. *S A E International Journal of Fuels and Lubricants*, (2013), 6(3).

Alimadadi, H.; da Silva Fanta, A.B.; Pantleon, K.

The complementary use of electron backscatter diffraction and ion channeling imaging for the characterization of nanotwins. *Journal of Microscopy*, (2013), 249(2), 111-118.

Becker, H.; Pantleon, W.

Work-hardening stages and deformation mechanism maps during tensile deformation of commercially pure titanium. *Computational Materials Science*, (2013), 76, 52-59.

Lin, F.; Leffers, T.; Juul Jensen, D.; Pantleon, W.

Effects of widening during rolling on the subsequent recrystallization kinetics of copper. *Materials Science Forum*, (2013), 753, 285-288.

Niehuesbernd, J.; Müller, C.; Pantleon, W.; Bruder, E.

Quantification of local and global elastic anisotropy in ultrafine grained gradient microstructures, produced by linear flow splitting. *Materials Science and Engineering A: Structural Materials: Properties, Microstructures and Processing*, (2013), 560, 273-277.

Wejdemann, C.; Poulsen, H.F.; Lienert, U.; Pantleon, W.

In Situ Observation of the Dislocation Structure Evolution During a Strain Path Change in Copper. *J O M*, (2013), 65(1), 35-43.

Duelund, L.; Jensen, G.V.; Hannibal-Bach, H.K.; Ejsing, C.S.; Pedersen, J.S.; Pakkanen, K.I.; Ipsen, J.H.

Composition, structure and properties of POPC-triolein mixtures. Evidence of triglyceride domains in phospholipid bilayers. *Biochimica et Biophysica Acta (BBA)/Biomembranes*, (2013), 1828(8), 1909-1917.

Andersen, U.V.; Pedersen, D.B.; Hansen, H.N.; Nielsen, J.S.

In-process 3D geometry reconstruction of objects produced by direct light projection. *International Journal of Advanced Manufacturing Technology*, (2013), 68(1-4), 565-573.

Pedersen, N.L.

Optimization of bolt thread stress concentrations. *Archive of Applied Mechanics*, (2013), 83(1), 1-14.

Pedersen, N.L.

Overall bolt stress optimization. *Journal of Strain Analysis for Engineering Design*, (2013), 48(3), 155-165.

Pedersen, P.; Pedersen, N.L.

On strength design using free material subjected to multiple load cases. *Structural and Multidisciplinary Optimization*, (2013), 47(1), 7-17.

Kim, D.K.; Pedersen, P.T.; Paik, J.K.; Kim, H.B.; Zhang, X.; Kim, M.S.

Safety guidelines of ultimate hull girder strength for grounded container ships. *Safety Science*, (2013), 59, 46-54.

Antipin, O.; Mojaza, M.; Pica, C.; Sannino, F.

Magnetic fixed points and emergent supersymmetry. *Journal of High Energy Physics*, (2013), 37.

Hietanen, A.; Lewis, R.; Pica, C.; Sannino, F.

Composite Goldstone Dark Matter. *Physical Review D (Particles, Fields, Gravitation and Cosmology)*, (2013)

Hietanen, A.; Pica, C.; Sannino, F.; Ishøj Søndergaard, J.  
Orthogonal Technicolor with Isotriplet Dark Matter on the Lattice. *Physical Review D (Particles, Fields, Gravitation and Cosmology)*, (2013), 87(3).

Pierobon, L.; Nguyen, T-V.; Larsen, U.; Haglund, F.; Elmegaard, B.  
Multi-objective optimization of organic Rankine cycles for waste heat recovery: Application in an offshore platform. *Energy*, (2013), 58, 538-549.

Pierobon, L.; Rokni, M.; Larsen, U.; Haglund, F.  
Thermodynamic analysis of an integrated gasification solid oxide fuel cell plant combined with and organic Rankine cycle. *Renewable Energy*, (2013), 60, 226-234.

Poulios, K.; Klit, P.  
Implementation and applications of a finite-element model for the contact between rough surfaces. *Wear*, (2013), 303(1-2), 1-8.

Poulios, K.; Svensen, G.W.; Hiller, J.; Klit, P.  
Coefficient of Friction Measurements for Thermoplastics and Fibre Composites Under Low Sliding Velocity and High Pressure, (2013), *Tribology Letters*, 51(2), 191-198.

Jacobsen, J.S.; Poulsen, P.N.; Olesen, J.F.; Krabbenhoft, K.  
Constitutive mixed mode model for cracks in concrete. *Engineering Fracture Mechanics*, (2013), 99, 30-47.

Mougaard, J.F.; Poulsen, P.N.; Nielsen, L.O.  
Complete Tangent Stiffness for eXtended Finite Element Method by including crack growth parameters. *International Journal for Numerical Methods in Engineering*, (2013), 95(1), 33-45.

Poulsen, U.V.; Scholz, J.C.; Sørensen, E.H.L.; Cleve J.; Greiner, M.  
High-frequency parametrization of engineering wind-farm wake models. *Wind Energy*, (2013).

Pyrz, R.  
New Master's in materials technology. *Public Service Review*, (2013), 25, 327.

Dolomanova, V.; Kumar, V.; Pyrz, R.; Madaleno, L.A.O.; Jensen, L.R.; Rauhe, J.C.M.  
Foaming of Microcellular PP-MWCNT Nanocomposite in a Sub-Critical CO<sub>2</sub> Process. *Cellular Polymers*, (2013), 32(1), 1-19.

Madaleno, L.; Pyrz, R.; Crosky, A.; Jensen, L.R.; Rauhe, J.C.M.; Dolomanova, V., De Barros Timmons, A.M.M.V.; Cruz Pinto, J.J.; Norman, J.  
Processing and characterization of polyurethane nanocomposite foam reinforced with montmorillonite-carbon nanotube hybrids. *Composites Part A: Applied Science and Manufacturing*, (2013), 44(1), 1-7.



Ma, Y.; Su, X.; Pyrz, R.; Rauhe, J.C.M.

A novel theory of effective mechanical properties of closed-cell foam materials. *Acta Mechanica Solida Sinica*, (2013), 26(6), 559-569.

Ramos García, N.; Sørensen, J.N.; Shen, W. Zhong

A strong viscous-inviscid interaction model for rotating airfoils. *Wind Energy*, (2013).

Rasmussen, H.K.

Catastrophic failure of polymer melts during extension. *Journal of Non-Newtonian Fluid Mechanics*, (2013), 198, 136-140.

Hoyle, D.M.; Huang, Q.; Auhl, D.; Hassell, D.; Rasmussen, H.K.; Skov, A.L.; Harlen, O.G., Hassager, O.; McLeish, T.C.B.

Transient overshoot extensional rheology of long-chain branched polyethylenes: Experimental and numerical comparisons between filament stretching and cross-slot flow. *Journal of Rheology*, (2013), 57(1), 293-313.

Huang, Q.; Mednova, O.; Rasmussen, H.K.; Javier Alvarez, N.; Skov, A.L.; Almdal, K.; Hassager, O.

Concentrated Polymer Solutions are Different from Melts: Role of Entanglement Molecular Weight. *Macromolecules*, (2013), 46(12), 5026-5035.

Huang, O.; Javier Alvarez, N.; Matsumiya, Y.; Rasmussen, H.K.; Watanabe, H.; Hassager, O.

Extensional Rheology of Entangled Polystyrene Solutions Suggests Importance of Nematic Interactions. *A.C.S. Macro Letters*, (2013), 741-744.

Markos, C.; Stefani, A.; Nielsen, K.; Rasmussen, H.K.; Yuan, S.W.; Bang, O.

High- $T_g$  TOPAS microstructured polymer optical fiber for fiber Bragg grating strain sensing at 110 degrees. *Optics Express*, (2013), 21(4), 4758 – 4765.

Román Marin, J.M.; Huusom, J.K.; Javier Alvarez, N.; Huang, Q.; Rasmussen, H.K.; Bach, A.; Skov, A.L.; Hassager, O.

A control scheme for filament stretching rheometers with application to polymer melts. *Journal of Non-Newtonian Fluid Mechanics*, (2013), 194, 14-22.

Sáez-Rodríguez, D.; Nielsen, K.; Rasmussen, H.K.; Bang, O.; Webb, D.J.

Highly photosensitive polymethyl methacrylate microstructured polymer optical fiber with doped core. *Optics Letters*, (2013), 38(19), 3769-3772.

Stefani, A.; Yuan, W.; Markos, C.; Rasmussen, H.K.; Andresen, S.; Guastavino, R.; Nielsen, F.K.; Rose, B.; Jespersen, O.; Herholdt-Rasmussen, N.; Bang, O.

Temperature compensated, humidity insensitive, high- $T_g$  TOPAS FBGs for accelerometers and microphones. *Proceedings of SPIE, the International Society for Optical Engineering*, (2013), 8421.

Majid, N.A.B.A.; Abdullah, M.F.E.; Jamaludin, M.S.; Notomi, M.; Rasmussen, J.

Musculoskeletal analysis of driving fatigue: The influence of seat adjustments. *Advanced Engineering Forum*, (2013), 10, 373-378.

Read, R.; Rogerson, J.W.; Hochgreb, S.  
Planar laser-induced fluorescence fuel imaging during gas-turbine relight. *Journal of Propulsion and Power*, (2013), 29(4), 961-974.

Andersen, J.E.; Penner, R.C.; Reidys, C.M.; Waterman, M.S.  
Topological classification and enumeration of RNA structures by genus. *Journal of Mathematical Biology*, (2013), 67(5), 1261-1278.

Andersen, J.G.; Chekhov, L.; Penner, R.; Reidys, C.; Sulkowski, P.  
Topological recursion for chord diagrams, RNA complexes, and cells in moduli spaces. *Nuclear Physics*, (2013), Section B.866, 3, 414-443.

Han, H.S.; Li, T.J.; Reidys, C.  
Combinatorics of  $\gamma$ -structures. *Journal of Computational Biology*, (2013).

Huang, F.W.; Nebel, M.E.; Reidys, C.  
Generation of RNA pseudoknot structures with topological genus filtration. *Mathematical Biosciences*, (2013), 245(2).

Li, T.; Reidys, C.  
The topological filtration of  $\gamma$ -structures. *Mathematical Biosciences*, (2013), 241(1), 24-33.

Qin, J.; Reidys, C.M.  
On Topological RNA Interaction Structures. *Journal of Computational Biology*, (2013), 20(7), 495-513.

Rokni, M.  
Thermodynamic analysis of SOFC (solid oxide fuel cell) – Stirling hybrid plants using alternative fuels. *Energy*, (2013), 61, 87-97.

Bang-Møller, C.; Rokni, M.; Elmegaard, B.; Ahrenfeldt, J.; Henriksen, U.B.  
Decentralized Combined heat and power production by two-stage biomass gasification and solid oxide fuel cells. *Energy*, (2013), 58, 527-537.

Bellomare, F.; Rokni, M.  
Integration of a municipal solid waste gasification plant with solid oxide fuel cell and gas turbine. *Renewable Energy*, (2013), 55, 490-500.

Hosseinzadeh, E.; Rokni, M.; Advani, S.G.; Prasad, A.K.  
Development and Validation of a Simple Analytical Model of the Proton Exchange Membrane Fuel Cell (Pemfc) in a Fork-Lift Truck Power System. *International Journal of Green Energy*, (2013), 10, 523-543.

Hosseinzadeh, E.; Rokni, M.; Advani, S.G.; Prasad, A.K.  
Performance simulation and analysis of a fuel cell/battery hybrid forklift truck. *International Journal of Hydrogen Energy*, (2013), 38(11), 4241-4249.

Hosseinzadeh, E.; Rokni, M.; Rabbani R.A.; Mortensen, H.H.  
Thermal and water management of low temperature Proton Exchange Membrane Fuel Cell in fork-lift truck. *Applied Energy*, (2013), 104, 434-444.

Rabbani, R.A.; Rokni, M.  
Dynamic characteristics of an automotive fuel cell system for transitory load changes. *Sustainable Energy Technologies and Assessments*, (2013), 1(1), 34-43.

Rabbani, R.A.; Rokni, M.  
Effect of nitrogen crossover on purging strategy in PEM fuel cell systems. *Applied energy*, (2013), 111, 1061-1700.

Gregersen, I.B.; Sørup, H.J.D.; Madsen, H.; Rosbjerg, D.; Mikkelsen, P.S.; Arnbjerg-Nielsen, K.  
Assesing future climatic changes of rainfall extremes at small spatio-temporal scales. *Climatic Change*, (2013), 118(3-4), 783-797.

Gregersen, I.B.; Madsen, H.; Rosbjerg, D.; Arnbjerg-Nielsen, K.  
A spatial and non-stationary model for the frequency of extreme rainfall events. *Water Resour. Res.*, (2013), 49(1), 127-136.

Hansen, A.K.; Hendricks Franssen, H.-J., Bauer-Gottwein, P.; Madsen, H.; Rosbjerg, D.; Kaiser, H.-P.  
Well field management using multi-objective optimization. *Water Resour. Manag.*, (2013), 27(3), 629-648.

Hansen, A.K.; Madsen, H.; Bauer-Gottwein, P.; Rosbjerg, D.; Falk, A.K.V.  
Optimization of well field operation: case study Sønderø Waterworks, Denmark. *J. Water Resour. Plann. Manage.*, (2013), 139(1), 109-116.

Sunyer, M.A.; Madsen, H.; Rosbjerg, D.; Arnbjerg-Nielsen, K.  
Regional interdependency of precipitation indices across Denmark in two ensembles of high-resolution RCMs. *J. Climate*, (2013), 26(20), 7912-7928.

Sunyer, M.A.; Sørup, H.J.D.; Christensen, O.B.; Madsen, H.; Rosbjerg, D.; Mikkelsen, P.S.; Arnbjerg-Nielsen, K.  
On the importance of observational data properties when assessing regional climate model performance of extreme precipitation. *Hydrol. Earth Syst. Sci.*, (2013), 17(11), 4323-4337

Rothuizen, E.D.; Mérida, W.; Rokni, M.; Wistoft-Ibsen, M.  
Optimization of hydrogen vehicle refueling via dynamic simulation. *International Journal of Hydrogen Energy*, (2013), 38(11), 4221-4231.

Røgen, P.; Koehl, P.  
Extracting knowledge from protein structure geometry. *Proteins – Structure Function and Bioinformatics*, (2013), 81(5), 841-851.

Røn, T.; Javakhishvili, II; Jankovan Atanasova, K.; Hvilsted, S.; Lee, S.  
Adsorption and Aqueous Lubrication Properties of Charged and Neutral Amphiphilic Diblock Copolymers at a Compliant Hydrophobic Interface. *Langmuir*, (2013), 29(25), 7782-7792.

Sanporean, C-G.; Donescu, D.; Vuluga, Z.; Christiansen, J.D.C.; Jensen, E.A.; Paven, H.  
Compatibilizing agents influence on mechanical properties of PP/clay nanocomposites. *Polytechnical University of Bucharest. Scientific Bulletin. Series B: Chemistry and Materials Science*, (2013), 75(1), 3-16.

Sanaporean, C-G.; Vuluga, Z.; Christiansen, J.D.C.; Radovici, C.; Jensen, E.A.; Paven, H.  
Investigation of Mechanical Properties of PP/Clay Nanocomposites Based on Network Cross-Linked Compatibilizers. *Industrial & Engineering Chemistry Research*, (2013), 52(10), 3773-3778.

Lahriri, S.; Santos, I.  
Experimental quantification of contact forces with impact, friction and uncertainty analysis. *Tribology International*, (2013), 66, 93-104.

Lahriri, S.; Santos, I.  
Experimental quantification of dynamic forces and shaft motion in two different types of backup bearings under several contact conditions. *Mechanical Systems and Signal Processing*, (2013), 40(1), 301-321.

Lahriri, S.; Santos, I.  
Theoretical modelling, analysis and validation of the shaft motion and dynamic forces during rotor-stator contact. *Journal of Sound and Vibration*, (2013), 332(24), 6359-6376.

Schlechtingen, M.; Santos, I.; Achiche, S.  
Using Data-Mining Approaches for Wind Turbine Power Curve Monitoring: A Comparative Study. *I E E E Transactions on Sustainable Energy*, (2013), 4(3), 671-679.

Schlechtingen, M.; Santos, I.; Achiche, S.  
Wind turbine condition monitoring based on SCADA data using normal behavior models: Part 1: System description. *Applied Soft Computing*, (2013), 13, 259-270.

Sørensen, E.H.; Schmiegel, J.  
Lévy based approach to isotropic random vector fields: With applications to turbulence. *Bernoulli*, (2013), 39

Sørensen, E.H.; Schmiegel, J.  
A causal continuous-time stochastic model for the turbulent energy cascade in a helium jet flow. *Journal of Turbulence*, (2013) 14(11), 1-26.

Chen, J.; Shen, W.Z.; Wang, Q.; Pang, X.; Li, S.; Guo, X.  
Structural optimization study of composite wind turbine blade. *Materials & Design*, (2013), 46, 247-255.

Chen, J.; Cheng, J.; Shen, W.; Zhu, W.; Wang, X.  
Research on improved design of airfoil profiles based on the continuity of airfoil surface curvature of wind turbines. *Taiyang Neng Xuebao*, (2013), 34(4), 547-554.

Hong, Z; Yang, H.; Xu, H.; Shen, W. Zhong  
Prediction of aerodynamic performance for MEXICO rotor. *Nongye Gongcheng Zheyao*, (2013), 29(18), 67-74.

Si, H.; Shen, W. Zhong; Zhu, W.J.  
Effect of non-uniform mean flow field on acoustic propagation problems in computational aeroacoustics. *Aerospace Science and Technology*, (2013), 28(1), 145-153.

Xu, C.; Tian, Q.; Shen, W. Zhong; Zhen, Y.; Liu, D.; Zhang, M  
Wind turbine pitch control using ICPSO-PID algorithm. *Paiguan Jixie Gongcheng Xuebao/Journal of Drainage and Irrigation Machinery Engineering*, (2013), 31(11), 973-979.

Xu, C.; Yang, J.; Li, C.; Shen, W. Zhong; Zheng, Y.; Liu, D.  
Optimization of Wind Farm Layout in Complex Terrain. *Zhongguo Dianji Gongsheng Xuebao*, (2013), 33(31), 58-64.

Sichani, Mahdi Teimouri; Nielsen, Søren R.K.  
First Passage Probability Estimation of Wind Turbines by Markov Chain Monte Carlo. *Structure & Infrastructure Engineering*, (2013), 9(10), 1067.

Zhang, Zili; Sichani, Mahdi Teimouri; Li, Jie; Chen, Jianbing; Nielsen, Søren R.K.  
Non-linear aeroelastic stability of wind turbines. *Key Engineering Materials*, (2013), 1, 531-538.

Sigmund, O.; Maute, K.  
Topology optimization approaches: A comparative review. *Structural and Multidisciplinary Optimization*, (2013), 48(6), 1031-1055.

Amir, O.; Sigmund, O.  
Reinforcement layout design for concrete structures based on continuum damage and truss topology optimization. *Structural and Multidisciplinary Optimization*, (2013), 47(2), 157-174.

Andkjær, J.A.; Sigmund, O.  
Topology optimized cloak for airborne sound. *Journal of Vibration and Acoustics*, (2013), 135(4).

Arslanagic, S.; Hansen, T.V.; Mortensen, N.A.; Gregersen, A.H.; Sigmund, O.;  
Ziolkowski, R.W.; Breinbjerg, O.  
A Review of the Scattering-Parameter Extraction Method with Clarification of  
Ambiguity Issues in Relation to Metamaterial Homogenization. *I E E E Antennas and  
Propagation Magazine*, (2013), 55(2), 91-106.

Dühring, M.B.; Sigmund, O.  
Optimization of extraordinary optical absorption in plasmonic and dielectric  
structures. *Optical Physics*, (2013), 30(5), 1154-1160.

Park, B-U.; seo, Y-D.; Sigmund, O.; Youn, S-K.  
Shape optimization of the stokes flow problem based on isogeometric analysis.  
*Structural and Multidisciplinary Optimization*, (2013), 48, 965-977.

Philippine, M.A.; Sigmund, O.; Rebeiz, G.M.; Kenny, T.W.  
Topology Optimization of Stressed Capacitive RF MEMS Switches. *I E E E Journal  
of Microelectromechanical Systems*, (2013), 22(1), 206-215.

Philippine, M.A.; Zareie, H.; Sigmund, O.; Rebeiz, G.M.; Kenny, T.W.  
Experimental Validation of Topology Optimization for RF MEMS Capacitive Switch  
Design. *I E E E Journal of Microelectromechanical Systems*, (2013), 22(6), 1296-  
1309.

Qian, X.; Sigmund, O.  
Topological design of electromechanical actuators with robustness toward over- and  
under-etching. *Computer Methods in Applied Mechanics and Engineering*, (2013),  
253, 237-251.

Alimadadi, H.; da Silva Fanta, A.B.; Somers, M.A.J.; Pantleon, K.  
Columns formed by multiple twinning in nickel layers – An approach of grain  
boundary engineering by electrodeposition. *Applied Physics Letters*, (2013), 103(3).

Jegou, S.; Christiansen, T.L.; Klaus, M.; Genzel, C.; Somers, M.A.J.  
Determination of composition, residual stress and stacking fault depth profiles in  
expanded austenite with energy-dispersive diffraction. *Thin Solid Films*, (2013), 530,  
71-76.

Sonne, M.R.; Hattel, J.H.  
Modeling the constitutive and frictional behavior of PTFE flexible stamps for  
nanoimprint lithography. *Microelectronic Engineering*, (2013), 106, 1-8.

Sonne, M.R.; Tutum, C.C.; Hattel, J.H.; Simar, A.; Meester, B.D.  
The effect of hardening laws and thermal softening on modeling residual stresses in  
FSW of aluminum alloy 2024-T3. *Journal of Materials Processing Technology*,  
(2013), 213, 477-486.

Sorokin, S.  
On the bi-orthogonality conditions for multi-modal elastic waveguides. *Journal of  
Sound and Vibration*, (2013), 332(21), 5606-5617.

Manconia, E.; Sorokin, S.

On the effect of damping on dispersion curves in plates. *International Journal of Solids and Structures*, (2013), 50(11-12), 1966-1973.

Hansen, C.S.; Stang, H.

Modeling of crack propagation in strengthened concrete disks. *International Journal of Fracture*, (2013), 179(1-2), 75-85.

Michel, A.; Solgaard, A.O.S.; Pease, B.J.; Geiker, M.R.; Stang, H.; Olesen, J.F.

Experimental investigation of the relation between damage at the concrete-steel interface and initiation of reinforcement corrosion in plain and fibre reinforced concrete. *Corrosion Science*, (2013), 77, 308-321.

Solgaard, A.O.S.; Michel, A.; Geiker, M.R.; Stang, H.

Concrete cover cracking due to uniform reinforcement corrosion. *Materials and Structures*, (2013), 46(11), 1781-1799.

Sumer, B.M.; Petersen, T.U.; Locatelli, L.; Fredsøe, J.; Musumeci, R.E.; Foti, E.

Backfilling of a Scour Hole around a Pile in Waves and Current. *Journal of Waterway, Port, Coastal, and Ocean Engineering*, (2013), 139(1), 9-23.

Sumer, B.M.; Güner A.; Hansen, N.M.; Fuhrman, D.R.; Fredsøe, J.

Laboratory observations of flow and sediment transport induced by plunging regular waves. *Journal of Geophysical Research*, (2013), 118(11), 6161-6182.

Sumer, B.M.; Nielsen, A.W.

Sinking failure of scour protection at wind turbine foundation. *Institution of Civil Engineers. Proceedings. Energy*, (2013), 166(EN4), 170-188.

Dixen, M.; Sumer, B.M.; Fredsøe, J.

Numerical and experimental investigation of flow and scour around a half-buried sphere. *Coastal Engineering*, (2013) 73, 84-150

Kirce, V.S.O.; Sumer, B.M.; Fredsøe, J.

Residual liquefaction of seabed under standing waves. *Journal of Waterway, Port, Coastal, and Ocean Engineering*, (2013), 139(6), 489-501.

Nielsen, A.W.; Liu, X.; Sumer, B.M.; Fredsøe, J.

Flow and bed shear stresses in scour protections around a pile in a current. *Coastal Engineering*, (2013), 72, 20-38.

Kusano, Y.; Sørensen, B.F.; Løgstrup Andersen, T.; Leipold, F.

Adhesion improvement of glass-fibre-reinforced polyester composites by gliding arc discharge treatment. *Journal of Adhesion*, (2013), 89, 433-459.

Kusano, Y.; Sørensen, B.F.; Løgstrup Andersen, T.; Toftegaard, H.L.; Leipold, F.;

Salewski, M.; Sun, Z.; Zhu, J.; Li, Z.; Alden, M.

Water-cooled non-thermal gliding arc for adhesion improvement of glass-fibre-reinforced polyester. *Journal of Physics D: Applied Physics*, (2013), 46(13).

- Martyniuk, K.; Sørensen, B.F.; Modregger, P.; Lauridsen, E.M.  
3D in situ observations of glass fibre/matrix interfacial debonding. *Composites Part A: Applied Science and Manufacturing*, (2013), 55, 63-73.
- Bartzanas, T.; Bochtis, D.; Green, O.; Sørensen, C. Grøn; Fidaros, D.  
Prediction of quality parameters for biomass silage: A CFD approach. *Computers and Electronics in Agriculture*, (2013), 93, 209-216.
- Berruto, R.; Buzato, P.; Bochtis, D.; Sørensen, C. Grøn  
Comparison of distribution systems for biogas plant residual. *Biomass & Bioenergy*, (2013), 52, 139-150.
- Bochitis, D.D.; Sørensen, C. Grøn; Busato, P.; Berruto, R.  
Benefits from optimal route planning based on B-patterns. *Biosystems Engineering*, (2013), 115(4), 389-395.
- Bochitis, D.D.; Dogoulis, P.; Gemtos, T.; Busato, P.; Sørensen, C. Grøn; Berruto, R.  
A flow-shop problem formulation of biomass handling operations scheduling. *Computers and Electronics in Agriculture*, (2013), 91, 49-56.
- Busato, P.; Sørensen, C. Grøn; Pavlou, D.; Bochtis, D.; Berruto, R.; Orfanou, A.  
DSS tool for the implementation and operation of an umbilical system applying organic fertiliser. *Biosystems Engineering*, (2013), 114, 9-20.
- Edwards, G.T.C.; Christiansen, M.P.; Bochitis, D.; Sørensen, C. Grøn  
Test Platform for Planned Field Operations Using LEGO Mindstorms NXT. *Robotics*, (2013), 2(4), 203-216.
- Gassó-Tortajada, V.; Sørensen, C. Grøn; Oudshoorn, F.W.; Green O.  
Controlled traffic farming: A review of the environmental impacts. *European Journal of Agronomy*, (2013), 28, 66-73.
- Ibrahim, I.A.F.A.H.; Bochtis, D.; Sørensen, C. Grøn; Jensen, A.L.; Larsen, R.  
Optimized driving direction based on a three-dimensional field representation. *Computers and Electronics in Agriculture*, (2013), 91, 145-153.
- Orfanou, A.; Busato, P.; Bochtis, D.; Edwards, G.T.C.; Pavlou, D.; Sørensen, C. Grøn; Berruto, R.  
Scheduling for machinery fleets in biomass multiple-field operations. *Computers and Electronics in Agriculture*, (2013), 94, 12-19.
- Troldborg, N.; Sørensen, J.N.; Mikkelsen, R.F.; Sørensen, N.N.  
A simple atmospheric boundary layer model applied to large eddy simulations of wind turbine wakes. *Wind Energy*, (2013).
- Sousa, Hélder S.; Sørensen, John Dalsgaard; Kirkegaard, Poul Henning; Branco, Jorge M.; Lourenco, Paulo B.  
On the use of NDT Data for Reliability-Based Assessment of Existing Timber Structures. *Engineering Structures*, (2013), 56 (November), 298-311.



Abdullaev, F.K.; Ögren, M.; Sørensen, M.P.

Faraday waves in quasi-one-dimensional superfluid Fermi-Bose mixtures. *Physical Review A (Atomic, Molecular and Optial Physics)*, (2013), 87(2), 023616.

Caputo, J.G.; Sørensen, M.P.

Radial sine-Gordon kinks as sources of fast breathers. *Physical Review E (Statistical, Nonlinear, and Soft Matter Physics)*, (2013), 88(2).

Gaididei, Y.B.; Gorria, C.; Berkemer, R.; Kawamoto, A.; Shiga, T.; Christiansen, P.L.; Sørensen, M.P.; Starke, J.

Controlling traffic jams by time modulating the safety distance. *Physical review E (Statistical Nonlinear, and Soft Matter Physics)*, (2013), 88(4).

Gaididei, Y.B.; Gorria, C.; Berkemer, R.; Christiansen, P.L.; Kawamoto, A.; Sørensen, M.P.; Starke, J.

Stochastic control of traffic patterns. *Networks and Heterogeneous Media*, (2013), 8(1), 261-273.

Zermeno, V.M.R.; Abrahamsen, A.B.; Mijatovic, N.; Jensen, B.B.; Sørensen, M.P.

Calculation of alternating current losses in stacks and coils made of second generation high temperature superconducting tapes for large scale applications. *Journal of Applied Physics*, (2013), 114(17).

Sørensen, S.N.; Lund, E.

Topology and thickness optimization of laminated composites including manufacturing constraints. *Structural and Multidisciplinary Optimization*, (2013), 48(2), 249-165.

Thomassen, C.

Decomposing a graph into bistars. *Journal of Combinatorial Theory. Series B*, (2013), 103(4), 504-508.

Thomassen, C.

Decomposing graphs into paths of fixed length. *Combinatorica*, (2013), 33(1), 97-123.

Alahmadi, A.; aldred, R.E.L.; de la Cruz, R.; Solé, P.; Thomassen, C.

The maximum number of minimal codewords in an  $[n, k]$ -code. *Discrete Mathematics*, (2013), 313(15), 1569-1574.

Lovász, L.M.; Thomassen, C.; Wu, Y.; Zhang, C-Q

Nowhere-zero 3-flows and modulo  $k$ -orientations. *Journal of Combinatorial Theory. Series B*, (2013), 103(5), 587-598.

Thompson, M.K.

Improving the requirements process in Axiomatic Design Theory. *C I R P Annals*, (2013), 62(1), 115-118.

Thompson, M.K.; Clemmensen, L.K.H.; Ahn, B.

The Effect of Rubric Rating Scale on the Evaluation of Engineering Design Projects. *International Journal of Engineering Education*, (2013), 29(6), 1490-1502.

Tiedje, N.S.; Taylor, J.A.; Easton, M.A.

A new multizone model for porosity distribution in Al-Si alloy castings. *Acta Materialia*, (2013), 61(8), 3037-3049.

Moumeni, E.; Stefanescu, D.M.; Tiedje, N.S.; Larrañaga, P.; Hattel, J.H.

Investigation on the Effect of Sulfur and Titanium on the Microstructure of Lamellar Graphite Iron. *Metallurgical and Materials Transactions A*, (2013), 44(11), 5134-5146.

Nwaogu, U.C.; Tiedje, N.S.; Hansen, H.N.

A non-contact 3D method to characterize the surface roughness of castings. *Journal of Materials Processing Technology*, (2013), 213(1), 59-68.

Hamilton, A.R.; Thomsen, O.T.; Madaleno, L.A.O.; Jensen, L.R.; Rauhe, J.C.M.; Pyrz, R.

Evaluation of the Anisotropic Mechanical Properties of Reinforced Polyurethane Foams. *Composites Science and Technology*, (2013), 87, 210-217.

Khalili, S.M.R.; Malekzadeh, F.; Rahmani, O.; Thomsen, O.T.

High-order Modeling of Circular Cylindrical Composite Sandwich Shells with a Transversely Compliant Core Subjected to Low Velocity Impact. *Mechanics of Advanced Materials and Structures*, (2013).

Raghavalu Thirumalai, D.P.; Pillai, S.; Charca, S.; Ataollahi, S.; Knudsen, H.; Løgstrup Andersen, T.; Bech, J.I.; Thomsen, O.T.; Lilholt, H.

Effect of polymer Form and its Consolidation on Mechanical Properties and Quality of Glass/PBT Composites. *Applied Composite Materials*, (2013).

Toft, H.S.; Branner, K.; Mishnaevsky, L.; Sørensen, J.D.

Uncertainty modelling and code calibration for composite materials. *Journal of Composite Materials*, (2013), 47(14), 1729-1747.

Raghavalu Thirumalai, D.P.; Toftegaard, H.L.

Environmental Effects on the Mechanical Properties of Commingled-Yarn-Based Carbon Fiber/Polyamide 6 Composites. *Journal of Composites Materials*, (2013).

Torres-Arredondo, M.A.; Tibaduiza, D.-A.; McGugan, M.; Toftegaard, H.L.; Borum, K.K.; Mujica, L.E.; Rodellar, J. Fritzen, C.-P.

Multivariate data-driven modelling and pattern recognition for damage detection and identification for acoustic emission and acousto-ultrasonics. *Smart Materials and Structures*, (2013), 22.

Kusano, Y.; Løgstrup Andersen, T.; Toftegaard, H.L.; Leipold, F.; Bardenshtein, A.

Plasma treatment of carbon fibres and glass-fibre-reinforced polyesters at atmospheric pressure for adhesion improvement. *International Journal of Materials Engineering Innovation*, (2013).

- Jauregui-Becker, J.M.; Tosello, G.; van Houten, F.J.A.M.; Hansen, H.N.  
Performance Evaluation of a Software Engineering Tool for Automated Design of Cooling Systems in Injection Moulding. *Procedia CIRP*, (2013), 7, 270-275.
- Yagüe-Fabra, J.A.; Ontiveros, S.; Jiménez, R.; Chitchian, S.; Tosello, G.; Carmignato, S.  
A 3D edge detection technique for surface extraction in computed tomography for dimensional metrology applications. *CIRP Annals*, (2013), 61(1), 532-534.
- Tvergaard, V.; Niordson, C.F.; Hutchinson, J.W.  
Material size effects on crack growth along patterned wafer-level Cu-Cu bonds. *International Journal of Mechanical Sciences*, (2013), 68, 270-276.
- Ponson, L.; Cao, Y.; Bouchaud, E.; Tvergaard, V.; Needleman.  
Statistics of ductile fracture surfaces: the effect of material parameters. *International Journal of Fracture*, (2013), 184(1-2), 137-149.
- Velte, C.M.; Hansen, M.O.L.  
Investigation of flow behind vortex generators by stereo particle image velocimetry on a thick airfoil near stall. *Wind Energy*, (2013), vol 16(5), 775-785.
- Verdingovas, V.; Jellesen, M.S.; Ambat, R.  
Influence of sodium chloride and weak organic acids (flux residues) on electrochemical migration of tin on surface mount chip components. *Corrosion Engineering, Science and Technology*, (2013), 48(6), 426-435.
- Pralgauskaitė, S.; Palenskis, V.; Maturkas, J.; Šaulys, B.; Kornijčuk, V.; Verdingovas, V.  
Analysis of mode-hopping effect in Fabry-Pérot multiple-quantum well laser diodes via low frequency noise investigation. *Solid-State Electronics*, (2013), 79, 104-110.
- Walther, J.H.; Hejlesen, M.M.; Leonard, A.; Koumoutsakos, P.  
An Iterative Brinkman penalization for particle vortex methods. *American Physical Society. Bulletin*, (2013), 58(8).
- Walther, J.H.; Ritos, K.; Cruz-Chu, E.R.; Megaridis, C.M.; Koumoutsakos, P.  
Barriers to Superfast Water Transport in Carbon Nanotube Membranes. *Nano Letters*, (2013), 13, 1910-1914.
- Hejlesen, M.M.; Rasmussen, J.T.; Chatelain, P.; Walther, J.H.  
A high order solver for the unbounded Poisson equation. *Journal of Computational Physics*, (2013), 252, 458-467.
- Jensen, M.V.; Walther, J.H.  
Numerical analysis of jet impingement heat transfer at high jet Reynolds number and large temperature difference. *Heat Transfer Engineering*, (2013), 34(10), 801-809.
- Sigurdson, L.; Wiwchar, J.; Walther, J.H.  
Simulation of the Initial 3-D Instability of an Impacting Drop Vortex Ring. *American Physical Society. Bulletin*, (2013), 58(8).

Zambrano, H.; Walther, J.H.; Oyarzua, E.

Effect of air on water capillary flow in silica nanochannels. American Physical Society. Bulletin, (2013), 58(8).

Wang, P.; Pierron, F.; Thomsen, O.T.

Identification of Material Parameters of PVC Foams Using Digital Image Correlation and the Virtual Fields Method. Experimental Mechanics, (2013), 53(6), 1001-1015.

West, O.; Diederichs, A.M.; Alimadadi, H.; Dahl, K.V.; Somers, M.A.J.

Application of Complementary Techniques for Advanced Characterization of White Etching Crack. Praktische Metallographie, (2013), 50(6), 410-431.

Westlye, F.R.; Ivarsson, A.; Schramm, J.

Experimental investigation of nitrogen based emissions from an ammonia fueled SI-engine. Fuel, (2013), 111, 239-247.

Wind-Willassen, Ø.; Moláček, J.; Harris, D. M.; Bush, J. W. M.

Exotic states of bouncing and walking droplets. Physics of Fluids, (2013), 25(8).

Hong, C.; Huang, X.; Winther, G.

Dislocation content of geometrically necessary boundaries aligned with slip planes in rolled aluminium. Philosophical Magazine (London, 2003), (2013), 93(23), 3118-3141.

Le, G.M.; Godfrey, A.; Hansen, N.; Liu, W.; Winther, G.; Huang, X.

Influence of grain size in the near-micrometre regime on the deformation microstructure in aluminium. Acta Materialia, (2013), 61(19), 7072-7086.

Goegebeur, Y.; Dierckx, G.; Guillou, A.

An asymptotically unbiased minimum density power divergence estimator for the Pareto-tail index. Journal of Multivariate Analysis, (2013), 121.

Goegebeur, Y.; Guillou, A.

Asymptotically unbiased estimation of the coefficient of tail dependence. Scandinavian Journal of Statistics, (2013), 40, 174-189.

Goegebeur, Y.; Psiosik, Z.; Klitkou, L.; Steffensen, R.; Christiansen, O.B.

Plasma TNF-alpha levels are higher in early pregnancy in patients with secondary compared with primary recurrent miscarriage. American Journal of Reproductive Immunology, (2013), 70(5).

Zadeh, M.N.; Sorokin, S.

Comparison of waveguide properties of curved versus straight planar elastic layers. Mechanics Research Communications, (2013), 47, 61-68.

Zadeh, M.N.; Sorokin, S.

Simplified description of out-of-plane waves in thin annular elastic plates. Journal of Sound and Vibration, (2013), 332(4), 894-906.

Zafar, A.; Schjødt-Thomsen, J.; Sodhi, R.; Goacher, R.; de Kubber, D.  
Investigation of the ageing effects on phenol-urea-formaldehyde binder and alkanol amine-acid anhydride binder coated mineral fibres. *Polymer Degradation and Stability*, (2013), 98(1), 339-347.

Zhang, Y.; Hansen, H.N.; Hattel, J.H.; Tang, P.T.; Nielsen, J.S.; Tutum, C.C.  
An explanation of the mechanism for laser induced selective activation using diffusion theory. *Nami Jishu yu Jingmi Gongcheng*, (2013), 11(2), 97-104.

Zhang, Y.; Hansen, H.N.; Tang, P.T.; Nielsen, J.S.  
Verification of a characterization method of the laser-induced selective activation based on industrial lasers. *International Journal of Advanced Manufacturing Technology*, (2013), 68, 1775-1783.

Zhu, W.J.; Behrens, T.; Shen, W. Zhong; Sørensen, J.N.  
Hybrid immersed boundary method for airfoils with a triling-edge flap. *AIAA Journal*, (2013), 51(1), 30-41.

Cheng, J.; Zhu, W.J.; Fischer, A.; Ramos García, N.; Madsen, J.  
Design and validation of the high performance and low noise CQU-DTU-LN1 airfoils. *Wind Energy*, (2013).

Aage, N.; Lazarov, B.S.  
Parallel framework for topology optimization using the method of moving asymptotes. *Structural and Multidisciplinary Optimization*, (2013), 47(4), 493-505.

Aage, N.; Nobel-Jørgensen, M.; Andreasen, C.S.; Sigmund, O.  
Interactive topology optimization on hand-held devices. *Structural and Multidisciplinary Optimization*, (2013), 47(1), 1-6.

Amir, O.; Aage, N.; Lazarov, B.S.  
On multigrid-CG for efficient topology optimization. *Structural and Multidisciplinary*, (2013).

Christiansen, A.N.; Nobel-Jørgensen, M.; Aage, N.; Sigmund, O.; Bærentzen, J.  
Topology optimization using an explicit interface representation. *Structural and Multidisciplinary Optimization*, (2013), 49(3), 387-399.

#### 4B. BOOKS

Andersen, J.A.B.; McAloone, T.C.; Garcia I Mateu, A.; Mougaard, K.;  
Neugebauer, L.M.; Hsuan, J.; Ahm, T.  
PSS Business Models: A workbook in the PROTEUS series. (PROTEUS  
Workbook series; No. PRO-07)

Andersen, J.A.B.; McAloone, T.C.; Garcia I Mateu, A.; Mougaard, K.;  
Neugebauer, L.M.; Hsuan, J.; Ahm, T.  
PSS Partnerships: A workbook in the PROTEUS series. (PROTEUS Workbook  
series; No. PRO-06).

Bureau, E., Schilder, F., Santos, I., Thomsen, J., Starke, J.  
Experimental Bifurcation Analysis of an Impact Oscillator – Tuning A Non-  
Invasive Control Scheme. Journal of Sound and Vibration (2013) 332(22), 5883 –  
5897.

Debrabant, K.; Jacobsen, E.R.  
Semi-Lagrangian schemes for parabolic equations.  
Recent developments in computational finance, Foundations, algorithms and  
applications, hrsg. von T. Gerstner und P. Kloeden, Bd. 14,  
Interdisciplinary Mathematical Sciences, World Scientific, 2013, Kap. 6, 279-298.

Debrabant, K.; Rössler, A.  
Derivative-free weak approximation methods for stochastic differential equations  
in finance.  
Recent developments in computational finance, Foundations, algorithms and  
applications, hrsg. von T. Gerstner und P. Kloeden, Bd. 14,  
Interdisciplinary Mathematical Sciences, World Scientific, 2013, Kap. 7, 299-316.

Islam, A.; Marhöfer, D.M.; Tosello, G.; Hansen, H.N.  
Capability Handbook – offline metrology. Hi-Micro project.

Krenk, S.; Høgsberg, J.B.  
Statics and Mechanics of Structures. Springer Science+Business Media B.V.

Apitz, N.; McAloone, T.C.; Garcia I Mateu, A.; Andersen, J.A.B.; Mougaard, K.;  
Neugebauer, L.M.; Hsuan  
PSS Organisation: A workbook in the PROTEUS series (PROTEUS Workbook  
series; No. PRO-05).

Avlonitis, V.; Hsuan, J.; McAloone, T.C.; Garcia I Mateu, A.; Andersen, J.A.B.;  
Mougaard, K.; Neugebauer, L.M.; Ahm, T.  
PSS Readiness Manual: A workbook in the PROTEUS series. (PROTEUS  
Workbook series; No. PRO-03).

Finken, K.H.; McAloone, T.C.; Avlonitis, C.; Garcia i Mateu, A.; Andersen,  
J.A.B.; Mougaard, K.; Neugebauer, L.M.; Hsuan, J.  
PSS Tool Book: A workbook in the PROTEUS series. (PROTEUS Workbook  
series; No. PRO-04).

Mougaard, K.; Neugebauer, L.M.; Garcia I Mateu, A.; Andersen, J.A.B.; McAloone, T.C.; Hsuan, J.; Ahm, T.  
Maritime Branch Analysis: A workbook in the PROTEUS series. (PROTEUS Workbook series; No. PRO-01).

Møller, P.; Nielsen, L.P.  
 Advanced Surface Technology. Møller & Nielsen

Butts, M.; Rasmussen, S.H.; Ridler, M.; Larsen, M.A.D.; Drews, M.; Lerer, S.; Overgaard, J.; Grooss, J.; Rosbjerg, D.; Christensen, J.H.; Refsgaard, J.C.  
 Embedding complex hydrology in the climate system – towards fully coupled climate-hydrology models. Climate and Land Surface Changes in Hydrology (eds. E. Boegh, E. Blyth, D.M. Hannah, H. Hisdal, H Kunstmann, B. Su and K. Koray), IAHS Publ. no 359, 133-139.

Wang, Y.; Chen, H.; Rosbjerg, D.; Madsen, H.; Bauer-Gottwein, P.; Wang, J.  
 Real-time dynamic control of the Three Gorges Reservoir by coupling numerical weather rainfall prediction and flooded forecasting. Considering Hydrological Change in Reservoir Planing and Management (eds. A. Schumann, V.B. Belyaev, E. Gargouri, G. Kuczera and G. Mahe), IAHS Publ. no. 362, 75-82.

Starke, J.  
 Dynamical System Approaches to Combinatorial Optimization.  
 Invited Book Chapter. Pages 1065-1124 in Pardalos, P., Du, D.-Z. and Graham, R.: Handbook of Combinatorial Optimization, 2nd Edition. (2013) Springer Verlag, Heidelberg, New York.

Gaididei, Y., Gorria, C., Berkemer, R., Kawamoto, A., Shiga, T., Christiansen, P., Sørensen, M., Starke, J.  
 Traffic jam control by time-modulating the safety distance.  
 Physical Review E (2013) 88(4), 042803 – 042815.

Gaididei, Y., Gorria, C., Berkemer, R., Christiansen, P., Kawamoto, A., Sørensen, M., Starke, J.  
 Stochastic control of traffic patterns. Invited article for special issue “Nonlinear Partial Differential Equations: Theory and Applications to Complex Systems” (editors: Henri Berestycki, Danielle Hilhorst, Frank Merle, Masayasu Mimura and Khashayar Pakdaman) of NHM (Networks and Heterogeneous Media), (2013) 8(1), 261–273, dedicated to Professor Hiroshi Matano on the occasion of his 60th birthday.

Thompson, M.K.  
 Proceedings of the 2<sup>nd</sup> International Workshop on Design in Civil and Environmental Engineering. Worcester, MA:DCEE.

Thompson, M.K.  
 Proceedings of the 7<sup>th</sup> International Conference on Axiomatic Design. ICAD.

## 5. LIST OF DCAMM S-REPORTS (from no. S85)

S1 – S107: Ask for separate book.

- S108. JONCQUEZ, SOIZIC ANNICK GABRIELLE: Second-order Forces and Moments acting on Ships in Waves (August 2009)
- S109. DÜHRING, MARIA BAYARD: Optimization of acoustic, optical and optoelastic devices (July 2009)
- S110. NIELSEN, KIM LAU: Modelling of damage development and ductile failure in welded joints (December 2009)
- S111. ESTUPINAN, EDGAR ALBERTO: Feasibility of Applying Controllable Lubrication Techniques to Reciprocating Machines (December 2009)
- S112. BANG-MØLLER, CHRISTIAN: Design and Optimization of an Integrated Biomass Gasification and Solid Oxide Fuel Cell System (April 2010)
- S113. PEDERSEN, RUNE: Dynamic Modeling of wind Rubine Gearboxes and Experimental Validation (April 2010)
- S114. BRIX, WIEBKE: Modelling refrigerant distribution in minichannel evaporators (May 2010)
- S115. HUMMELSHØJ, THOMAS STRABO: Mechanisms of metal dusting corrosion (December 2009)
- S116. CIPOLLA, LEONARDO: Conversion of MX Nitrides to Modified Z-Phase in 9-12%Cr Ferritic Steels (March 2010)
- S117. HAIDER, SAJJAD: Two Stroke diesel Engines for Large Ship Propulsion (January 2011).
- S118. VELTE, CLARA: Simulation and control of Wind Turbine Flows using Vortex Generators (February 2009)
- S119. ENZ, STEPHANIE: Factors Affecting Coriolis Flowmeter Accuracy, Precision, and Robustness (September 2010)
- S120. KJÆRSGAARD-RASMUSSEN, JIMMY: Inside-out electrical capacitance tomography for downhole multiphase flow evaluation (April 2010)
- S121. LAJIC, ZORAN: Fault-Tolerant Onboard monitoring and Decision Support Systems (October 2010)
- S122. SVENDSEN, MARTIN NYMANN: Wind Turbine Rotors with Active Vibration Control (January 2011)



- S123 CLAUSEN, LASSE RØNGAARD: Design of novel DME/methanol synthesis plants based on gasification of biomass (February 2011)
- S124 SHIN, KEUN WOO: Cavitation simulation on marine propellers (November 2010)
- S125 HAUGAARD, ASGER MARTIN: On Controllable Elastohydrodynamic Fluid Film Bearings (May 2010)
- S126 PEDERSEN, TROELS DYHR: Homogeneous Charge Compression Ignition Combustion of Dimethyl Ether (May 2011)
- S127 GARCÍA, NÈSTOR RAMOS: Quasi-3d aerodynamic code for analysing dynamic flap response (April 2011)
- S128 ZAMBRANO, HARVEY A: Molecular Dynamics Studies of Nanofluidic Devices (May 2011)
- S129 AAGE, NIELS: Topology optimization of radio frequency and microwave structures (April 2011)
- S130 MATZEN, RENÉ: Topology Optimization for Transient Wave Propagation Problems (March 2011)
- S131 ANDREASEN, CASPER SCHOUSBOE: Multiscale topology optimization of solid and fluid structures (May 2011)
- S132 KÆRN, MARTIN RYHL: Analysis of flow maldistribution in fin-and-tube evaporators for residential air-conditioning systems (August 2011)
- S133 BEHRENS, TIM: Simulation of Moving Tailing edge Flaps on a Wind Turbine Blade using a Navier-Stokes based Immersed Boundary Method (July 2011)
- S134 BLASQUES, JOSÉ PEDRO ALBERGARIA AMARAL: Optimal Design of Laminated Composite Beams (August 2011)
- S135 AZIZI, REZA: Multi-scale modelling of composites (September 2011)
- S136 JACOBSEN, NIELS GJØL: A Full Hydro- and Morphodynamic Description of Breaker Bar Development (April 2011)
- S137 MOROSI, STEFANO: From Hybrid to Actively-Controlled Gas Lubricated Bearings – Theory and Experiment (September 2011)
- S138 KÆRGAARD, KASPER: Numerical Modeling of Shoreline Undulations (September 2011)

- S139 BHOWMIK, SUBRATA: Modelling and Control of Magnetorheological Damper: Real-time implementation and experimental verification (October 2011)
- S140 ANDKJÆR, JACOB: Wave Manipulation by Topology Optimization (January 2012)
- S141 MOSLEMIAN, RAMIN: Residual Strength and Fatigue Lifetime of Debond Damaged Sandwich Structures (September 2011)
- S142 HANSEN, SØREN VINTHER: Performance Monitoring of Ships (September 2011)
- S143 HANSEN, NILAS MANDRUP: Interaction between Seabed Soil and Offshore Wind Turbine Foundations (March 2012)
- S144 THOMSEN, KIM: Modeling of dynamically loaded hydrodynamic bearings at low Sommerfeld numbers (March 2012)
- S145 WANG, FENGWEN: Systematic Design of Slow Light Waveguides (August 2012)
- S146 RASMUSSEN, JOHANNES TOPHØJ: Particle Methods in Bluff Body Aerodynamics (October 2011)
- S147 ANDERSEN, SØREN BØGH: Design and Optimization of Gearless Drives using Multi-Physics Approach (September 2012)
- S148 LAHRIRI, SAID: On the Rotor to Stator Contact Dynamics with Impacts and Friction – Theoretical and Experimental Study (November 2012)
- S149 VARELA, ALEJANDRO CERDA: Mechatronics Applied to Fluid Film Bearings: Towards More Efficient Machinery (December 2012)
- S150. SCHLECHTINGEN, MEIK: A Global Condition Monitoring System for Wind Turbines (February 2013)
- S151. SENG, SOPHEAK: Slamming and Whipping Analysis of Ships (December 2012)
- S152: HOSSEINZADEH, ELHAM: Fuel Cell Hydrogen manifold for Lift Trucks (December 2012)
- S153: DIMITROV, NIKOLAY: Structural Reliability of wind Turbine Blades: Design Methods and Evaluation (February 2013)
- S154: RABBANI, ABID: Dynamic Performance of a PEM Fuel Cell System (March 2013)

- S155: LINDBERG, OLE: Multiscale Simulation of Breaking Wave Impacts (March 2012)
- S156: NIELSEN, MARTIN BJERRE: Dynamics of Rigid Bodies and Flexible Beam Structures (September 2013)
- S157: JENSEN, MICHAEL V.: Heat Transfer in Large Two-Stroke Marine Diesel Engines (August 2012)
- S158: TORRY-SMITH, JONAS MØRKEBERG: Designing Mechatronic Products – Achieving Integration by Means of Modelling Dependencies (February 2013)
- S159: POULIOS, KONSTANTINOS: Tribology of A Combined Yaw Bearing and Brake for Wind Turbines (September 2013)
- S160: JØRGENSEN, MARTIN FELIX: Aerodynamic and Mechanical System Modelling (November 2013)
- S161: ROTHUIZEN, ERASMUS DAMGAARD: Hydrogen Fuelling Stations – A Thermodynamic Analysis of Fuelling Hydrogen Vehicles for Personal Transportation (September 2013)

## 6. OTHER THESES

ANDERSEN, L.U.: "Performance of Biodegradable Polymers used in Mechanically Loaded Implants", DTU Wind Energy, 2013, PhD Thesis.

ANDERSEN, MORTEN: "Topology of Streamlines and Vorticity Contours for Two-Dimensional Flows", DTU Compute, 2013, PhD Thesis.

CASTBERG, N.A.: "Architectural Engineering to Super-Light Structures", DTU Civil Engineering, 2013, PhD Thesis.

CERON, ERMANO: "New tribo-system for sheet metal forming of advanced high strength steel and stainless steel", DTU Mechanical Engineering, 2013, PhD Thesis.

CHRISTENSEN, J.E.: "Acoustic Design of super-light Structures", DTU Civil Engineering, 2013, PhD Thesis.

DARULA, RADOSLAV: "Semi-Active Control by Means of Electro-Magnetic Elements", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

GODI, ALESSANDRO: "Characterisation and Testing of Multifunctional Surfaces", DTU Mechanical Engineering, 2014, PhD Thesis.

HANSEN, J.Z.: "The effects of fibre architecture on fatigue life-time of composite materials", DTU Wind Energy, 2013, PhD Thesis.

IVERSEN, A.: "Detailed simulations of lighting conditions in office rooms lit by daylight and artificial light", DTU Civil Engineering, 2013, PhD Thesis.

JUHL, THOMAS BROKHOLM: "Understanding and Expanding the Weldability of Plastics", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

KABUS, SIMON: "Optimal Design of Wind Turbine Drive Trains", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

KLEISSL, K.: "Cable Aerodynamics Control: Wind tunnel studies", DTU Civil Engineering, 2013, PhD Thesis.

KLINKVORT, R.T.: "Centrifuge modelling of drained lateral pile – soil response: Application for offshore wind turbine support structures", DTU Civil Engineering, 2013, PhD Thesis.

KOSTANDYAN, ERIK: "Reliability Modeling of Wind Turbines: exemplified by power converter systems as basis for O&M planning", Aalborg University, Department of Civil Engineering, 2013, PhD Thesis.

LANGER, THOMAS HEEGAARD: "Human Machine Interaction by Simulation of Dynamics of Construction Machinery", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

LARSEN, F.: "Thermal/moisture-related stresses and fracture behavior in solid wood members during forced drying: Modelling and experimental study", DTU Civil Engineering, 2013, PhD Thesis.

LÁRUSSON, L.H.: "Development of flexible Link Slabs using Ductile fiber Reinforced Concrete", DTU Civil Engineering, 2013, PhD Thesis.

MA, JING: "Study of Single Walled Carbon Nanotube Reinforced Polymer Composites by Hansen Solubility Parameters", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

MADALENO, LILIANA ANDREIA OLIVEIRA: "Processing and Characterization of Polymer Nanocomposites with Novel Nanostructured Fillers", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

MADDALONI, ALESSANDRO: "Algorithms for feedback vertex sets, (arc-)disjoint paths and cycles and spanning in digraphs", University of Southern Denmark, Department of Mathematics and Computer Science, 2013, PhD Thesis.

MARQUEZ-DOMINGUES, SERGIO: "Reliability-Based Design and Planning of Inspection and Monitoring of Offshore Wind Turbines", Aalborg University, Department of Civil Engineering, 2013, PhD Thesis.

MARTYNIUK, KAROLINA: "Studies of 3D microscale damage evolution in composites materials for wind turbines", DTU Wind Energy, 2013, PhD Thesis.

MICHEL, A.: "Reinforcement Corrosion: Numerical Simulation and Service Life Prediction", DTU Civil Engineering, 2013, PhD Thesis.

MIKKELSEN, KARIN BUNDGAARD: "Making It Short? A Fieldwork Study Outlining Patients' Expectations and Needs for Nursing in Facilities for Short-term Stay", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

MORELLI, M.: "Development of a method for holistic energy renovation", DTU Civil Engineering, 2013, PhD Thesis.

MOUMENI, ELHAM: "Solidification of cast iron – a study on the effect of microalloy elements on the microstructure of cast iron", DTU Mechanical Engineering, 2013, PhD Thesis.

NEZHENTSEVAN, ANASTASIA: "Design of Transition Pieces for Bucket Foundations for Offshore Wind Turbines", Aalborg University, Department of Civil Engineering, 2013, PhD Thesis.

NIELSEN, JANNIE SØNDERKÆR: "Risk-Red Operation and Maintenance of Offshore Wind Turbines", Aalborg University, Department of Civil Engineering, 2013, PhD Thesis.

NIELSEN, JOHAN SEBASTIAN ROSENKILDE: "List Decoding of Algebraic Codes", DTU Compute, 2013, PhD Thesis.

LETH, CASPAR THRANE: "Improved Design Basis for Laterally Loaded Large Diameter Pile: experimental based approach", Aalborg University, Department of Civil Engineering, 2013, PhD Thesis.

PEDERSEN, DAVID BUE: "ADDITIVE MANUFACTURING, Multi Material Processing and Part Quality Control", DTU Mechanical Engineering, 2013, PhD Thesis.

STEFFENSEN, SØREN: "Estimation of Fracture Toughness of Thin Films and Debonding and Particles in Thin Films", Aarhus University, Department of Engineering, 2013, PhD Thesis.

RASMUSSEN, G.M.G.: "The institutionalization of benchmarking in the Danish construction industry", DTU Civil Engineering, 2013, PhD Thesis.

SIMONSEN, SVEN: "Algorithmic aspects of paths, trees, branchings and cycles in digraphs", University of Southern Denmark, Department of Mathematics and Computer Science, 2013, PhD Thesis.

STOLPE, MATHIAS: "Models and Methods for Structural Topology Optimization with Discrete Design Variables", DTU Wind Energy, 2013, Doctoral Thesis.

SUN, T.R.: "Effect of pulse current on energy consumption and removal of heavy metals during electrochemical soil remediation", DTU Civil Engineering, 2013, PhD Thesis.

SØRENSEN, RASMUS MØRK: "Development of Highly Compact Hydrostatic Motor for Low Speed High Torque Applications", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

SØRENSEN, SØREN NØRGAARD: "Parameterizations for Multi-Material Topology Optimization of Composite Structures", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

TERKILDSEN, S.: "Development of mechanical ventilation system with low energy consumption for renovation of buildings", DTU Civil Engineering, 2013, PhD Thesis.

TOMMERUP, SØREN: "Feedback Control of Deep Drawing Processes", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

WU, GUNGLAI: "Error Modeling and Design Optimization of Parallel Manipulators", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

ZADEH, MAZIYAR NESARI: "Generation and Transmission of Vibration in Vertical Roller Mills", Aalborg University, Department of Mechanical and Manufacturing Engineering, 2013, PhD Thesis.

## 7. DCAMM SEMINARS GIVEN IN 2013

Associate Professor Luke Olson, Department of Computer Science University of Illinois at Urbana-Champaign, USA and Professor Xing Cai, Simula Norway: Seminar on Modern Scientific Computing Trends. 5 December 2013

Professor Rebecca Barthelmie: Can climate change impact wind energy? Can wind energy impact climate change? 13 November 2013. Indiana University, USA.

Professor Ronal W. Yeung: From Waveless Hulls to Ocean Renewable Energy – Ocean Technology Research at U.C. Berkely. 25 October 2013. University of California at Berkeley, USA.

Professor Linoel Birglen: Everything you Always Wanted to Know about Underactuated Hands. 14 October 2013. Ecole Polytechnique of Montreal, Canada.

Cand.scient., PhD Thomas Hesselberg: Numerical modelling of biological systems: tehspider orb web. 13 August 2013. Department of Zoology, University of Oxford, UK.

Professor Brian Hayman: Semi-analytical buckling and ultimate strength analysis of composite plates in compression. 21 May 2013. University of Oslo, Department of Mathematics, Norway.

Professor Fernando Lund: Ultrasound as a probe of dislocation density in aluminium. 28 February 2013. Universidad de Chile, Chile.

## DCAMM ANNUAL SPEAKER SEMINAR 2013

Professor Gaëtan Kerschen, Department of Aerospace and Mechanical Engineering, University of Liège, Belgium: Natural Frequencies and Normal Modes of Nonlinear Aerospace Structures.

This lecture was given both at the Technical University of Denmark and at Aalborg University, 27 and 28 November, respectively



## 8. DCAMM COURSES GIVEN IN 2013

### **DTU Mechanical Engineering**

Experimental fluid dynamics and data interpretation

High Performance Computing: FORTRAN, Open MP and MPI

Advanced Engineering Thermodynamics

Topology Optimization – Theory, Methods and Applications

Electron Microscopy and Analysis for Materials Research

Micro Mechanical Systems Design and Manufacture

Nanotribology: Theory and applications

Measurement uncertainty estimation using statistical methods

Marine Hydrodynamics and Aerodynamics of Offshore Wind Energy

### **DTU Compute**

Advanced Numerical Methods for Differential Equations

Multi-scale Analysis in Dynamical Systems

### **Aalborg University's Doctoral School of Engineering and Science**

Modeling and Control of Wave Energy Converters

**APPENDIX: List of members 2013**

## Abbreviations:

from Technical University of Denmark

CIVIL: Dept. of Civil Engineering  
 COMPUTE: Dept. of Applied Mathematics and Computer Science  
 MEK-FAM: Dept. of Mechanical Engineering, Solid Mechanics  
 MEK-FVM: Dept. of Mechanical Engineering, Fluid Mechanics,  
 Coastal and Maritime Engineering  
 MEK-K&P: Dept. of Mechanical Engineering, Engineering Design and Product  
 Development  
 MEK-MPP: Dept. of Mechanical Engineering, Manufacturing Engineering  
 MEK-MTU: Dept. of Mechanical Engineering, Materials and Surface Engineering  
 MEK-TES: Dept. of Mechanical Engineering, Thermal Energy  
  
 WIND: DTU Wind Energy

from Aalborg University

CIVIL, AAU: Department of Civil Engineering  
 M-TECH, AAU: Department of Mechanical and Manufacturing Engineering

from Aarhus University

ENG, AU: Department of Engineering

from University of Southern Denmark

SDU-MAT: Dept. of Mathematics and Computer Science

|                                |               |                          |
|--------------------------------|---------------|--------------------------|
| Adesokan, Bolaji James         | (COMPUTE)     | PhD student              |
| Aggerbeck, Martin              | (MEK-MTU)     | PhD student              |
| Alexandersen, Joe              | (MEK-FAM)     | PhD student              |
| Ambat, Rajan                   | (MEK-MTU)     | Associate Professor      |
| Amini Afshar, Mostafa          | (MEK-FVM)     | PhD student              |
| Andersen, Frederik Herland     | (MEK-FVM)     | PhD student              |
| Andersen, Ingrid Marie Vincent | (MEK-FVM)     | PhD student              |
| Andersen, Jakob Axel Bejbro    | (MEK-K&P)     | PhD student              |
| Andersen, Lars Vabbersgaard    | (CIVIL, AAU)  | Associate Professor, PhD |
| Andersen, Martin               | (M-TECH, AAU) | PhD student              |
| Andersen, Michael Skipper      | (M-TECH-AAU)  | PhD student              |
| Andersen, Morten               | (COMPUTE)     | PhD student              |
| Andersen, Morten Thøtt         | (CIVIL-AAU)   | PhD student              |
| Andersen, Poul                 | (MEK-FVM)     | Associate Professor      |
| Andersen, Rasmus               | (M-TECH, AAU) | Scientific Assistant     |
| Andersen, Søren Juhl           | (WIND)        | PhD student              |
| Andreasen, Casper Schousboe    | (MEK-FAM)     | Assistant Professor      |
| Andreasen, Jens H.             | (M-TECH, AAU) | Associate Professor      |
| Andreasen, Jesper Graa         | (MEK-TES)     | Scientific Assistant     |
| Andreasen, Mogens Myrup        | (MEK-K&P)     | Professor, Emeritus      |

|                             |               |                                 |
|-----------------------------|---------------|---------------------------------|
| Andreassen, Erik            | (MEK-FAM)     | PhD student                     |
| Angel, Jais Andreas Breusch | (MEK-MPP)     | PhD student                     |
| Azizi, Reza                 |               | Elected member, PhD             |
| Baby, Sanmohan              | (M-TECH, AAU) | Postdoc                         |
| Back-Pedersen, Andreas      |               | Elected member, PhD.            |
| Bai, Shaoping               | (M-TECH, AAU) | Assistant Professor             |
| Bak, Brian Lau Verndal      | (M-TECH, AAU) | PhD student                     |
| Bakkedal, Morten            | (MEK-MTU)     | PhD student                     |
| Balci, Adnan                | (COMPUTE)     | PhD student                     |
| Balling, Ole                | (ENG, AU)     | Professor                       |
| Bang-Jensen, Jørgen         | (SDU-MAT)     | Professor                       |
| Baran, Ismet                | (MEK-MPP)     | PhD student                     |
| Barington, Alexander        | (MEK-MTU)     | PhD student                     |
| Barton, Janice              | M-TECH, AAU   | Professor                       |
| Baumbach, Jan               | (SDU-MAT)     | Associate Professor             |
| Bay, Niels                  | (MEK-MPP)     | Professor                       |
| Baykal, Cüneyt              | (MEK-FVM)     | Postdoc                         |
| Beelen, Peter               | (COMPUTE)     | Associate Professor             |
| Bejder, Erik                | (M-TECH, AAU) | Associate Professor             |
| Bellemo, Lorenzo            | (MEK-TES)     | PhD student                     |
| Bendsøe, Martin             |               | Elected member, Professor       |
| Benkov, Lars                | (MEK-TES)     | Scientific Assistant            |
| Berggreen, Christian        | (WIND)        | Associate Professor             |
| Bihlet, Uffe                | (MEK-MTU)     | PhD student                     |
| Bingham, Harry B.           | (MEK-FVM)     | Associate Professor             |
| Bisacco, Giuliano           | (MEK-MPP)     | Assistant Professor, PhD        |
| Bitsche, Robert             | (WIND)        | Researcher                      |
| Blasques, José Pedro        | (WIND)        | Postdoc                         |
| Boelskifte, Per             | (MEK-K&P)     | Professor                       |
| Bohr, Tomas                 |               | Elected member, Professor       |
| Bordi, Kirill V.            | (MEK-MTU)     | Postdoc                         |
| Borg, Ulrik                 |               | Elected member, Senior Engineer |
| Bottoli, Federico           | (MEK-MTU)     | PhD student                     |
| Brander, David              | (COMPUTE)     | Associate Professor             |
| Branner, Kim                | (WIND)        | Senior Scientist                |
| Bredmose, Henrik            | (WIND)        | Assistant Professor             |
| Brincker, Rune              | (ENG, AU)     | Professor                       |
| Brink, Bastian              | (MEK-MTU)     | PhD student                     |
| Brohus, Henrik              | (CIVIL, AAU)  | Associate Professor, ph.d.      |
| Bruun, Hans Peter Lomholt   | (MEK-K&P)     | PhD student                     |
| Bræstrup, M. W.             |               | Elected member, PhD.            |
| Bräuner, Lars               | (ENG, AU)     | Associate Professor             |
| Brøndsted, Povl             | (WIND)        | Senior Scientist                |
| Brøns, Morten               | (COMPUTE)     | Professor, PhD                  |
| Buhl, Thomas                | (WIND)        | Senior Scientist                |
| Bumbach, Jan                | (SDU-MAT)     | Associate Professor             |
| Bureau, Emil                | (MEK-FAM)     | PhD student                     |
| Byskov, Esben               | (CIVIL, AAU)  | Emeritus Professor, dr.techn.   |
| Bøgh, Simon                 | (M-TECH, AAU) | PhD student                     |
| Baastrup, Jens-Jørgen       | (M-TECH, AAU) | Scientific Assistant            |
| Calaon, Matteo              | (MEK-MPP)     | Research Assistant              |
| Carlsen, Martin             | (COMPUTE)     | PhD student                     |
| Carstensen, Stefan          | (MEK-FVM)     | Associate Professor             |
| Cederkvist, Jan             |               | Elected member, PhD.            |
| Cerullo, Michele            | (MEK-FAM)     | PhD student                     |
| Chapelle, Lucie             | (WIND)        | PhD student                     |
| Chirandini, Marco           | (SDU-MAT)     | Associate Professor             |

|                                  |               |                                      |
|----------------------------------|---------------|--------------------------------------|
| Chivaae, Hamid Sarlak            | (WIND)        | PhD student                          |
| Christensen, Erik Damgaard       | (MEK-FVM)     | Professor, Head Section              |
| Christensen, Georg Kronborg      | (MEK-K&P)     | Associate Professor                  |
| Christensen, Martin Ebro         | (MEK-K&P)     | PhD student                          |
| Christensen, Ole                 | (COMPUTE)     | Professor, dr.scient.                |
| Christiansen, Christian Kim      | (MEK-FAM)     | PhD student                          |
| Christiansen, Esben Toke         | (M-TECH, AAU) | PhD student                          |
| Christiansen, Jesper De Claville | (M-TECH, AAU) | Professor                            |
| Christiansen, Peter              | (MEK-MPP)     | PhD student                          |
| Christiansen, Ramus Ellebæk      | (MEK-FAM)     | PhD student                          |
| Christiansen, Rune Juul          | (MEK-MTU)     | PhD student                          |
| Christiansen, Thomas             | (MEK-MTU)     | Senior Scientist                     |
| Christiansen, Torben R. Bilgrav  | (MEK-FVM)     | PhD student                          |
| Chrysostomou, Dimitris           | (M-TECH, AAU) | PhD student                          |
| Clausen, Anders                  | (MEK-FAM)     | PhD student                          |
| Clausen, Johan Christian         | (CIVIL-AAU)   | Asstant Professor                    |
| Clausen, Lasse Røngaard          | (MEK-TES)     | PhD student                          |
| Comminal, Raphael                | (MEK-MPP)     | PhD student                          |
| Conseil, Helene                  | (MEK-MTU)     | Scientific Assistant                 |
| Cordtz, Rasmus                   | (MEK-FM)      | PhD student                          |
| Costache, Andrei                 | (MEK-FAM)     | PhD student                          |
| Couturier, Philippe              | (MEK-FAM)     | PhD student                          |
| D'Angelo, Greta                  | (MEK-MPP)     | PhD student                          |
| Dahl, Kristian Vinter            | (MEK-MTU)     | Postdoc.                             |
| Dalen, Kristine Røste            | (MEK-TES)     | PhD student                          |
| Damgaard, Cecilie Maria          | (M-TECH, AAU) | PhD student                          |
| Damgaard, Jens Skov              | M-TECH, AAU   | Scientific Assistant                 |
| Damkilde, Lars                   | (CIVIL, AAU)  | Professor                            |
| Dammann, Bernd                   | (COMPUTE)     | Associate Professor                  |
| Danckert, Joachim                | (M-TECH, AAU) | Professor                            |
| Dang, Quang Vinh                 | (M-TECH, AAU) | PhD student                          |
| Danielsen, Hilmar                | (MEK-MTU)     | Postdoc.                             |
| Darula, Radoslav                 | (M-TECH, AAU) | PhD student                          |
| Dauidsdóttir, Svava              | (MEK-MTU)     | PhD student                          |
| De Chiffre, Leonardo             | (MEK-MPP)     | Professor                            |
| Debrabant, Kristian              | (SDU-MAT)     | Associate Professor                  |
| Della Morte, Michele             | (SDU-MAT)     | Associate Professor                  |
| Din, Rameez Ud                   | (MEK-MTU)     | PhD student                          |
| Do, Ngoc Anh Dung                | (M-TECH, AAU) | PhD student                          |
| Dou, Suguang                     | (MEK-FAM)     | PhD student                          |
| Drozdo, Aleksey                  | (M-TECH, AAU) | Adjunct Professor                    |
| Dukovska-Popovska, iskra         | (M-TECH, AAU) | Associate Professor                  |
| Eder, Martin Alexander           | (WIND)        | Researcher                           |
| Efler, Petr                      | (MEK-MTU)     | Postdoc                              |
| Egelund, Arne Jørgensen          | (MEK-TES)     | Associate Professor                  |
| Elmegaard, Brian                 | (MEK-TES)     | Associate Professor, Head of section |
| Elmegaard, Michael               | (COMPUTE)     | PhD student                          |
| El-Naaman, Salim                 | (MEK-FAM)     | PhD student                          |
| Endelt, Benny Ørtoft             | (M-TECH, AAU) | Associate Professor                  |
| Enemark, Søren                   | (MEK-FAM)     | PhD student                          |
| Engsig-Karup, Allan Peter        | (COMPUTE)     | Assistant Professor                  |
| Eriksen, Rasmus Normann W.       | (WIND)        | PhD student                          |
| Eriksen, Thomas                  | (M-TECH, AAU) | PhD student                          |
| Evgrafov, Anton                  | (COMPUTE)     | Associate Professor                  |
| Faber, Lene                      | (M-TECH, AAU) | Associate Professsor                 |
| Faber, Michael H.                | (CIVIL)       | Head of department                   |
| Farahani, Saeed D.               | (M-TECH, AAU) | PhD student                          |

|                                |               |                              |
|--------------------------------|---------------|------------------------------|
| Fedorov, Vladimir              | (WIND)        | PhD student                  |
| Fedorov, Vladimir              | (WIND)        | PhD student                  |
| Feng, Ju                       | (WIND)        | Postdoc                      |
| Fernandes, Frederico Augusto   | (MEK-MTU)     | Postdoc                      |
| Filippenko, Georg V.           | (M-TECH, AAU) | Associate Professor          |
| Frandsen, Niels Morten Marselv | (MEK-FAM)     | PhD student                  |
| Fredsøe, Jørgen                | (MEK-FVM)     | Professor                    |
| Frier, Christian               | (CIVIL, AAU)  | Associate Professor, PhD     |
| Fuglede, Niels                 | (MEK-FAM)     | PhD student                  |
| Fuhrman, David R.              | (MEK-FVM)     | Associate Professor          |
| Gallego-Calderon, Juan         | (WIND)        | PhD student                  |
| Garcia, Néstor Ramos           | (WIND)        | Researcher                   |
| Georgakis, Christos            | (CIVIL)       | Associate Professor          |
| Gervang, Bo                    | (ENG, AU)     | Associate Professor          |
| Giversen, Søren                | (WIND)        | PhD student                  |
| Glud, Jens Ammitzbøll          | (M-TECH, AAU) | PhD student                  |
| Godi, Allesandro               | (MEK-MPP)     | PhD student                  |
| Gogebeur, Yuri                 | (SDU-MAT)     | Associate Professor          |
| Graeme, Keith                  |               | Elected member               |
| Gravesen, Jens                 | (COMPUTE)     | Associate Professor, dr.phil |
| Greiner, Martin                | (ENG, AU)     | Professor                    |
| Gudia, Visweswara              | (MEK-MTU)     | PhD student                  |
| Guerrier, Patrick              | (MEK-MPP)     | PhD student                  |
| Gunneskov, Ole                 |               | Elected member, PhD.         |
| Guolaugsson, Tómas Vignir      | (MEK-K&P)     | PhD student                  |
| Habib, Turail                  | (M-TECH, AAU) | PhD student                  |
| Haglund, Fredrik               | (MEK-TES)     | Associate Professor          |
| Haider, Sajjad                 | (MEK-FM)      | Researcher                   |
| Hald, John                     | (MEK-MTU)     | Affiliated Professor         |
| Halkjær, Søren                 |               | Elected member               |
| Haloui, Safia                  | (COMPUTE)     | Postdoc                      |
| Hansen, Christian Lindschou    | (MEK-K&P)     | PhD student                  |
| Hansen, Claus Thorp            | (MEK-K&P)     | Associate Professor          |
| Hansen, Hans Nørgaard          | (MEK-MPP)     | Professor, Head of Section   |
| Hansen, John M.                | (WIND)        | Senior Scientist             |
| Hansen, Klaus Schütt           | (M-TECH, AAU) | PhD student                  |
| Hansen, Kurt Schaldemose       | (WIND)        | Senior Researcher            |
| Hansen, Martin Otto Laver      | (WIND)        | Associate Professor          |
| Hansen, Per Chr.               | (COMPUTE)     | Professor, dr. techn.        |
| Harthøj, Anders                | (MEK-MTU)     | PhD student                  |
| Haselbach, Philipp             | (WIND)        | PhD student                  |
| Hassing, Henrik                |               | Elected member, PhD          |
| Hattel, Jesper Henri           | (MEK-MPP)     | Professor                    |
| Hauksdóttir, Dagný             | (MEK-K&P)     | PhD student                  |
| Hededal, Ole                   | (CIVIL)       | Associate Professor          |
| Heilmann, Irene                | (COMPUTE)     | PhD student                  |
| Heinen, Frederik               | (M-TECH, AAU) | PhD student                  |
| Henriksen, Christian           | (COMPUTE)     | Associate Professor, PhD     |
| Henriksen, Søren Randrup       | (M-TECH, AAU) | Scientific Assistant         |
| Hiller, Jochen                 | (MEK-MPP)     | Postdoc                      |
| Hjorth, Poul                   | (COMPUTE)     | Associate Professor, PhD     |
| Hoffmann, Kristoffer           | (COMPUTE)     | PhD student                  |
| Horsewell, Andy                | (MEK-MTU)     | Professor                    |
| Hougaard, Peter                |               | Elected member, PhD          |
| Howard, Thomas J.              | (MEK-K&P)     | Associate Professor          |
| Hrgovan, Iva                   | (WIND)        | PhD student                  |
| Huang, Fenix Wenda             | (SDU-MAT)     | Postdoc                      |

|                              |               |                          |
|------------------------------|---------------|--------------------------|
| Hudecz, Adriana              | (WIND)        | PhD student              |
| Hvolby, Hans-Henrik          | (M-TECH, AAU) | Professor                |
| Høgh, Jacob Herold           | (MEK-FAM)     | PhD student              |
| Høgsberg, Jan Becker         | (MEK-FAM)     | Associate Professor      |
| Høholdt, Tom                 | (COMPUTE)     | Professor                |
| Højlund, Carsten             | (M-TECH, AAU) | PhD student              |
| Ibsen, Lars Bo               | (CIVIL, AAU)  | Professor, MSO, PhD      |
| Ingvorsen, Kristian Mark     | (MEK-FVM)     | Postdoc.                 |
| Islam, Mohammad Aminul       | (MEK-MPP)     | Postdoc.                 |
| Ivarsson, Anders             | (MEK-TES)     | Assistant Professor      |
| Jabbari, Masoud              | (MEK-MPP)     | PhD student              |
| Jacobsen, Christian Brix     |               | Elected member, PhD.     |
| Jacobsen, Henrik S.          | (MEK-TES)     | Scientific Assistant     |
| Jakobsen, Johnny             | (M-TECH, AAU) | Postdoc                  |
| Jakobsen, Kasper Rønnow      | (WIND)        | PhD student              |
| Janakiraman, Shravan         | (MEK-FAM)     | PhD student              |
| Jellesen, Morten Stendahl    | (MEK-MTU)     | Postdoc                  |
| Jensen, Bjarne               | (MEK-FVM)     | PhD student              |
| Jensen, Erik Appel           | (M-TECH, AAU) | Associate Professor      |
| Jensen, Henrik Myhre         | (ENG, AU)     | Professor                |
| Jensen, Jacob Hjelmager      | (MEK-FVM)     | Associate Professor      |
| Jensen, Jakob S.             | (MEK-FAM)     | Associate Professor, PhD |
| Jensen, Jonas Kjær           | (MEK-TES)     | PhD student              |
| Jensen, Jørgen Juncher       | (MEK-FVM)     | Professor                |
| Jensen, Karsten Lindegård    | (MEK-FVM)     | PhD student              |
| Jensen, Lars Rosgaard        | (M-TECH, AAU) | Associate Professor      |
| Jespersen, Freja Nygaard     | (MEK-MTU)     | PhD student              |
| Johannesson, Björn           | (CIVIL)       | Associate Professor      |
| Johansen, Villads Egede      | (MEK-FAM)     | PhD student              |
| Juhl, Thomas Brokholm        | (M-TECH, AAU) | PhD student              |
| Jönsson, Jeppe               | (CIVIL)       | Professor                |
| Jørgensen, John Bagterp      | (COMPUTE)     | Assistant Professor      |
| Jørgensen, Kaj Asbjørn       | (M-TECH, AAU) | Associate Professor      |
| Jørgensen, Mads Carsten      | (MEK-TES)     | Scientific Assistant     |
| Jørgensen, Martin Felix      | (MEK-FAM)     | PhD student              |
| Kepler, Jørgen Asbøl         | (M-TECH, AAU) | Associate Professor      |
| Kermani, Nasrin Arjomand     | (MEK-TES)     | PhD student              |
| Kiamehr, Saeed               | (MEK-MTU)     | PhD student              |
| Kirkegaard, Poul Henning     | (CIVIL, AAU)  | Associate Professor      |
| Kjartansdóttir, Cecilia      | (MEK-MTU)     | PhD student              |
| Klein, Robert                | (MEK-TES)     | Scientific Assistant     |
| Klit, Peder                  | (MEK-FAM)     | Professor, PhD           |
| Klonovs, Juris               | (M-TECH, AAU) | PhD student              |
| Knudsen, Kim                 | (COMPUTE)     | Associate professor      |
| Knudsen, Lars Ramkilde       | (COMPUTE)     | Professor                |
| Knudsen, Thomas              | (MEK-TES)     | PhD student              |
| Knudsen, Thomas S.           |               | Elected member, PhD.     |
| Kolakowska, Ewa              | (M-TECH, AAU) | Associate Professor      |
| Kolmogorov, Dmitry           | (WIND)        | PhD student              |
| Kook, Junghwan               | (MEK-FAM)     | Postdoc                  |
| Koukoura, Christina          | (WIND)        | PhD student              |
| Krenk, Steen                 | (MEK-FAM)     | Professor                |
| Kristensen, Anders Schmidt   | (CIVIL, AAU)  | Associate Professor      |
| Kristensen, Hans O. H.       | (MEK-FVM)     | Senior Researcher        |
| Kristensen, Kristian         | (COMPUTE)     | IT-Manager               |
| Kristensen, Sten Esbjørn     | (MEK-FVM)     | PhD student              |
| Kristiansen, Kristian Uldall | (COMPUTE)     | Postdoc                  |

|                                |               |                                     |
|--------------------------------|---------------|-------------------------------------|
| Kristiansen, Morten            | (M-TECH, AAU) | Associate Professor                 |
| Krüger, Voker                  | (M-TECH, AAU) | Associate Professor                 |
| Kærn, Martin Ryhl              | (MEK-TES)     | PhD student                         |
| Labanda, Susana Rojas          | (WIND)        | PhD student                         |
| Laier-Brodersen, Mark          | (MEK-FAM)     | PhD student                         |
| Larsen, Jan Balle              |               | Elected member, PhD.                |
| Larsen, Jesper Kranker         | (M-TECH, AAU) | PhD student                         |
| Larsen, Jon Steffen            | (MEK-FAM)     | PhD student                         |
| Larsen, Poul Scheel            | (MEK-FVM)     | Emeritus Professor                  |
| Larsen, Raino Mikael           | (M-TECH, AAU) | Associate Professor                 |
| Larsen, Ulrik                  | (MEK-TES)     | PhD student                         |
| Laustsen, Steffen              | (M-TECH, AAU) | PhD student                         |
| Lazarov, Boyan Stefanov        | (MEK-FAM)     | Senior Researcher                   |
| Lee, Seunghwan                 | (MEK-MTU)     | Associate Professor                 |
| Legarth, Brian N.              | (MEK-FAM)     | Associate Professor, PhD            |
| Lemvig, Jakob                  | (COMPUTE)     | Assistant Professor                 |
| Lenau, Torben Anker            | (MEK-K&P)     | Associate Professor                 |
| Li, Shizhao                    | (MEK-MPP)     | Scientific Assistant                |
| Lillholt, Hans                 | (WIND)        | Chief Scientist                     |
| Lindgren, Peter                | (M-TECH, AAU) | Associate Professor                 |
| Lindgaard, Esben               | (M-TECH, AAU) | Assistant Professor                 |
| Lindhard, Søren Munch          | (M-TECH, AAU) | Assistant Professor                 |
| Lind-Nielsen, Birger           |               | Elected member, PhD.                |
| Lomholt, Trine Colding         | (MEK-MTU)     | PhD student                         |
| Lopez, Angel Alfonso           | (MEK-MTU)     | PhD student                         |
| Lund, Erik                     | (M-TECH, AAU) | Professor                           |
| Lund, Ivar                     |               | Elected member, Associate Professor |
| Lythcke-Jørgensen, Christoffer | (MEK-TES)     | PhD student                         |
| Lützen, Marie                  |               | Elected member, Associate Professor |
| Madsen, Bo                     | (WIND)        | Senior Scientist                    |
| Madsen, Jan Busk               | (MEK-MTU)     | PhD student                         |
| Madsen, Ole                    | (M-TECH, AAU) | Professor                           |
| Madsen, Per A.                 | (MEK-FVM)     | Professor                           |
| Madsen, Søren Peder            | (ENG, AU)     | Associate Professor                 |
| Mahshid, Rasoul                | (MEK-MPP)     | PhD student                         |
| Manca, Marcello                | (WIND)        | PhD student                         |
| Manouchehr, Mehrtash           | (MEK-FAM)     | Scientific Assistant                |
| Marhöfer, David Maximilian     | (MEK-MPP)     | PhD student                         |
| Markussen, Wiebke Brix         | (MEK-TES)     | Assistant Professor                 |
| Markvorsen, Steen              | (COMPUTE)     | Professor, dr. techn.               |
| Marmaras, Konstantinos         | (WIND)        | PhD student                         |
| Marschler, Christian           | (COMPUTE)     | PhD student                         |
| Martakos, Georgios             | (M-TECH, AAU) | PhD student                         |
| Mazucco, Andrea                | (MEK-TES)     | PhD student                         |
| McAloone, Tim C.               | (MEK-K&P)     | Associate Professor                 |
| Menotti, Stefano               | (MEK-MPP)     | PhD student                         |
| Meyer, Knud Erik               | (MEK-FVM)     | Associate Professor                 |
| Mikkelsen, Lars Pilgaard       | (WIND)        | Senior Scientist                    |
| Mikkelsen, Robert Flemming     | (WIND)        | Senior Researcher                   |
| Mischkot, Michael              | (MEK-MPP)     | Scientific Assistant                |
| Mishnaevsky, Leon              | (WIND)        | Senior Scientist                    |
| Modi, Anish                    | (MEK-TES)     | PhD student                         |
| Mohaghegh, Kamran              | (MEK-MPP)     | Researcher                          |
| Mohanty, Sankhya               | (MEK-MPP)     | PhD student                         |
| Montgomery, Melanie            | (MEK-MTU)     | Associate Professor                 |
| Morsbøl, Jonas                 | (M-TECH, AAU) | PhD student                         |
| Mortensen, Flemming            | (ENG, AU)     | Senior Associate Professor          |

|                               |               |                                |
|-------------------------------|---------------|--------------------------------|
| Mortensen, Niels Henrik       | (MEK-K&P)     | Professor, Head of the section |
| Mougaard, Krestine            | (MEK-K&P)     | PhD student                    |
| Mouritsen, Ole Ø.             | (M-TECH, AAU) | Associate Professor            |
| Møller, Per                   | (MEK-MTU)     | Professor                      |
| Nalpantidis, Lazaros          | (M-TECH, AAU) | Assistant Professor            |
| Natarajan, Anand              | (WIND)        | Senior Scientist               |
| Nellemann, Christopher        | (MEK-FAM)     | PhD student                    |
| Neugebauer, Line Maria        | (MEK-K&P)     | PhD student                    |
| Neumeyer, Stefan              | (MEK-FAM)     | PhD student                    |
| Nguyen, Nhut                  | (COMPUTE)     | PhD student                    |
| Nguyen, Tuong-Van             | (MEK-TES)     | PhD student                    |
| Nguyen, Vivi Thuy             | (M-TECH, AAU) | PhD student                    |
| Nielsen, Bo Bjerregaard       | (MEK-FAM)     | PhD student                    |
| Nielsen, Chris Valentin       | (MEK-MPP)     | PhD student                    |
| Nielsen, Claus Suldrup        | (MEK-FM)      | PhD student                    |
| Nielsen, Daniel Rønne         | (MEK-TES)     | PhD student                    |
| Nielsen, Izabela Ewa          | (M-TECH, AAU) | Associate Professor            |
| Nielsen, Jens Henrik          | (CIVIL)       | Assistant Professor            |
| Nielsen, Johan S. Rosenkilde  | (COMPUTE)     | PhD student                    |
| Nielsen, Karl Brian           | (M-TECH, AAU) | Professor                      |
| Nielsen, Kim Lau              | (MEK-FAM)     | Assistant Professor            |
| Nielsen, Kjeld                | (M-TECH, AAU) | Phd student                    |
| Nielsen, Leif Otto            | (CIVIL)       | Associate Prof. Emeritus       |
| Nielsen, Martin Bjerre        | (MEK-FAM)     | Assistant Professor            |
| Nielsen, Niels-Jørgen Rishøj  |               | Elected member, PhD.           |
| Nielsen, Oluf Skov            | (M-TECH, AAU) | PhD student                    |
| Nielsen, Peter                | (M-TECH, AAU) | Associate Professor            |
| Nielsen, Peter Søe            | (MEK-MPP)     | PhD student                    |
| Nielsen, Rasmus Bruus         | (M-TECH, AAU) | PhD student                    |
| Nielsen, Søren R.K.           | (CIVIL, AAU)  | Professor, dr.techn.           |
| Nielsen, Ulrik Dam            | (MEK-FVM)     | Assistant Professor            |
| Niordson, Christian           | (MEK-FAM)     | Associate Professor, PhD       |
| Nygaard, Jens Vinge           | (ENG, AU)     | Head of Mechanical Engineering |
| Nørtoft, Peter                | (COMPUTE)     | Assistant Professor            |
| Ok, Seongmin                  | (COMPUTE)     | PhD student                    |
| Okoro, Sunday Chukwudi        | (MEK-MTU)     | PhD student                    |
| Okulov, Valery                | (WIND)        | Professor                      |
| Olafsson, Olafur Magnus       | (WIND)        | PhD student                    |
| Olesen, Christian Gammelgaard | (M-TECH, AAU) | Assistant Professor            |
| Olesen, John Forbes           | (CIVIL)       | Associate Professor            |
| Olesen, Peter Bjerg           | (M-TECH, AAU) | PhD student                    |
| Olhoff, Niels                 | (M-TECH, AAU) | Emeritus Professor             |
| Omidvarnia, Farzaneh          | (MEK-MPP)     | PhD student                    |
| Ommen, Torben Schmidt         | (MEK-TES)     | PhD student                    |
| Ormarsson, Sigurdur           | (CIVIL)       | Associate Professor            |
| Oshkovr, Simin A.             | (M-TECH, AAU) | PhD student                    |
| Ottosen, Niels Saabye         |               | Elected member, Professor      |
| Overgaard, Lars Chr. Terndrup | (M-TECH, AAU) | Associate Professor            |
| Ózkil, Ali Gürcan             | (MEK-K&P)     | Assistant Professor            |
| Pakkanen, Kirsi Inkeri        | (MEK-MTU)     | PhD student                    |
| Paletti, Hara Naga K. T.      | (M-TECH, AAU) | PhD student                    |
| Pang, Kar Mun                 | (MEK-TES)     | Postdoc                        |
| Pantleon, Karen               | (MEK-MTU)     | Associate Professor            |
| Pantleon, Wolfgang            | (MEK-MTU)     | Associate Professor            |
| Pedersen, Andreas Paarup      | (MEK-MTU)     | Scientific Assistant           |
| Pedersen, David Bue           | (MEK-MPP)     | PhD student                    |
| Pedersen, Michael             | (COMPUTE)     | Professor                      |



|                                   |               |  |
|-----------------------------------|---------------|--|
| Pedersen, Mikkel Rath             | (M-TECH, AAU) | PhD student                            |
| Pedersen, Niels L.                | (MEK-FAM)     | Associate Professor, dr.techn.         |
| Pedersen, Pauli                   | (MEK-FAM)     | Emeritus Professor, dr.techn., HD      |
| Pedersen, Preben Terndrup         | (MEK-FVM)     | Emeritus Professor, PhD                |
| Pedersen, Thomas Ørts             |               | Elected member, PhD.                   |
| Pereira, Gilmar Ferreira          | (WIND)        | PhD student                            |
| Petersen, Helga Nørgaard          | (WIND)        | PhD student                            |
| Petersen, Henrik Gordon           |               | Elected member, Professor              |
| Petersen, Thomas                  |               | Elected member, PhD                    |
| Petersen, Thomas Ditlev           | (M-TECH, AAU) | Assistant Professor                    |
| Petersen, Thor Ugelvig            | (MEK-FVM)     | PhD student                            |
| Pica, Claudio                     | (SDU-MAT)     | Professor mso.                         |
| Pierobon, Leonardo                | (MEK-TES)     | PhD student                            |
| Pigossi, Daniela Cristina Antelmi | (MEK-K&P)     | Postdoc                                |
| Pilný, Lukás                      | (MEK-MPP)     | PhD student                            |
| Pinero, Fernando                  | (COMPUTE)     | PhD student                            |
| Poulios, Konstantinos             | (MEK-FAM)     | PhD student                            |
| Poulsen, Peter Noe                | (CIVIL)       | Associate Professor                    |
| Poulsen, Uffe                     | (ENG, AU)     | Assistant Professor                    |
| Pyrz, Ryszard                     | (M-TECH, AAU) | Professor                              |
| Rasmussen, Arne P.                | (M-TECH, AAU) | Teaching Associate Professor           |
| Rasmussen, Henrik K.              | (MEK-MPP)     | Associate Professor                    |
| Rasmussen, John                   | (M-TECH, AAU) | Professor                              |
| Rasmussen, Ole Horn               | (M-TECH, AAU) | Postdoc                                |
| Rauhe, Jens Christian M           | (M-TECH, AAU) | Associate Professor                    |
| Ravn, Poul Martin                 | (MEK-K&P)     | PhD student                            |
| Ravn-Jensen, Kim                  |               | Elected members, PhD.                  |
| Read, Robert                      | (MEK-FVM)     | Postdoc                                |
| Reck, Mads                        |               | Elect. Mem., CFD Specialist – aerodyn. |
| Redanz, Pia                       |               | Elected member, Senior Engineer        |
| Reidys, Christian                 | (SDU-MAT)     | Professor                              |
| Rezaei, Mohsen                    | (M-TECH, AAU) | PhD student                            |
| Richelsen, Ann Bettina            | (MEK-FAM)     | Professor, PhD                         |
| Rogowska, Magdalena               | (MEK-MTU)     | PhD student                            |
| Rokni, Masoud                     | (MEK-TES)     | Associate Professor                    |
| Rootzén, Helle                    | (COMPUTE)     | Professor, Head of Department          |
| Rosbjerg, Dan                     |               | Elected members, Professor             |
| Rosenbeck, Bent                   | (M-TECH, AAU) | Scientific Assistant                   |
| Rothuizen, Erasmus Damgaard       | (MEK-TES)     | PhD student                            |
| Rytter, Niels Gorm                | (M-TECH, AAU) | Associate Professor                    |
| Røgen, Peter                      | (COMPUTE)     | Associate Professor                    |
| Røn, Troels                       | (MEK-MTU)     | PhD student                            |
| Salazar, Jorge A. González        | (MEK-FAM)     | PhD student                            |
| Sanporean, Catalina-Gabriela      | (M-TECH, AAU) | Scientific Assistant                   |
| Santos, Ilmar F.                  | (MEK-FAM)     | Professor, Dr.-Ing.                    |
| Saremi, Sina                      | (MEK-FVM)     | PhD student                            |
| Sarhadi, Ali                      | (MEK-MPP)     | PhD student                            |
| Schilder, Frank                   | (COMPUTE)     | Assistant Professor, dr.phil.          |
| Schjødt-Thomsen, Jan              | (M-TECH, AAU) | Associate Professor                    |
| Schløer, Signe                    | (WIND)        | PhD student                            |
| Schmiegel, Jürgen                 | (ENG, AU)     | Associate Professor                    |
| Schou, Casper                     | (M-TECH, AAU) | Scientific Assistant                   |
| Schramm, Jesper                   | (MEK-TES)     | Associate Professor                    |
| Schroll, Achim                    | (SDU-MAT)     | Professor, dr.sc. Math.                |
| Selchau, Jacob                    | (M-TECH, AAU) | Staff member with university degree    |
| Seng, Sopheak                     | (MEK-FVM)     | PhD student                            |
| Shen, Wen Zhong                   | (WIND)        | Associate Professor                    |

|                                |               |                                       |
|--------------------------------|---------------|---------------------------------------|
| Sichani, Mahdi Teimouri        | (CIVIL, AAU)  | PhD student                           |
| Sigmund, Ole                   | (MEK-FAM)     | Professor, dr.techn., Head of section |
| Sigurjonsson, Hafthor Aegir    | (MEK-TES)     | PhD student                           |
| Sivebæk, Ion Marius            | (MEK-MPP)     | Associate Professor                   |
| Somers, Marcel A. J.           | (MEK-MTU)     | Professor, Head of section            |
| Sommer, Anita Friis            | (M-TECH, AAU) | PhD student                           |
| Sonne, Mads Rostgaard          | (MEK-MPP)     | PhD student                           |
| Sorenson, Spencer C.           | (MEK-TES)     | Docent, Emeritus                      |
| Sorokin, Sergey                | (M-TECH, AAU) | Professor, PhD                        |
| Stang, Henrik                  | (CIVIL)       | Vice director, Professor              |
| Starke, Jens                   | (COMPUTE)     | Associate Professor                   |
| Steger-Jensen, Kenn            | (M-TECH, AAU) | Associate Professor                   |
| Sterndorff, Martin J.          |               | Elected member, PhD.                  |
| Stolpe, Mathias                | (WIND)        | Associate Professor                   |
| Storbjerg, Simon Haahr         | (M-TECH, AAU) | PhD student                           |
| Stäblein, Alexander            | (WIND)        | PhD student                           |
| Sumer, B. Mutlu                | (MEK-FVM)     | Professor                             |
| Svensson, Eilif                |               | Elected member, Manager               |
| Sørensen, Bent                 | (WIND)        | Head of Research Programme            |
| Sørensen, Claus Aage Grøn      | (ENG, AU)     | Senior Researcher                     |
| Sørensen, Jens Nørkær          | (WIND)        | Professor                             |
| Sørensen, John Dalsgaard       | (CIVIL, AAU)  | Professor, ph.d.                      |
| Sørensen, Mads Peter           | (COMPUTE)     | Associate Professor                   |
| Sørensen, Niels Jakob          |               | Elected member, PhD                   |
| Sørensen, René                 | (M-TECH, AAU) | PhD student                           |
| Sørensen, Søren Nørgaard       | (M-TECH, AAU) | PhD student                           |
| Taher, Siavash Talebi          | (M-TECH, AAU) | PhD student                           |
| Taps, Sig B.                   | (M-TECH, AAU) | Associate Professor                   |
| Thoft-Christensen, Palle       | (CIVIL, AAU)  | Emeritus Professor, ph.d.             |
| Thomassen, Carsten             | (COMPUTE)     | Professor                             |
| Thompson, Mary Kathryn         | (MEK-K&P)     | Associate Professor                   |
| Thomsen, Jon Juel              | (MEK-FAM)     | Associate Professor, dr.techn.        |
| Thomsen, Ole Thybo             | (M-TECH, AAU) | Professor                             |
| Thorborg, Jesper               | (MEK-MPP)     | Assistant Professor                   |
| Tiedje, Niels Skat             | (MEK-MPP)     | Associate Professor                   |
| Toft, Henrik Stensgaard        | (CIVIL, AAU)  | Assistant Professor                   |
| Toftgaard, Helmuth L.          | (WIND)        | Senior Scientist                      |
| Tommerup, Søren                | (M-TECH, AAU) | Assistant Professor                   |
| Tosello, Guido                 | (MEK-MPP)     | Assistant Professor                   |
| Tvergaard, Viggo               | (MEK-FAM)     | Professor Emeritus, dr.techn.         |
| Vajari, Danial                 | (MEK-FAM)     | PhD student                           |
| Varela, Alejandro Cerda        | (MEK-FAM)     | Postdoc                               |
| Vásquez, Fabian G. Pierart     | (MEK-FAM)     | PhD student                           |
| Vedel-Smith, Nikolaj Kjelgaard | (MEK-MPP)     | PhD student                           |
| Velte, Clara                   | (MEK-FVM)     | Associate Professor                   |
| Verdingovas, Vadimas           | (MEK-MTU)     | PhD student                           |
| Vestergaard, Jens Brusgaard    | (ENG, AU)     | Associate Professor                   |
| Villa, Matteo                  | (MEK-MTU)     | PhD student                           |
| Villumsen, Sigurd              | (M-TECH, AAU) | PhD student                           |
| Vinther, Frank                 | (COMPUTE)     | PhD student                           |
| Voigt, Andreas Jauernik        | (MEK-FAM)     | PhD student                           |
| Wahlgren, Søren                | (WIND)        | PhD student                           |
| Walther, Jens Honore           | (MEK-FVM)     | Professor MSO                         |
| Wang, Fengwen                  | (MEK-FAM)     | Researcher                            |
| Wang, Peng                     | (M-TECH, AAU) | PhD student                           |
| Weldeyesus, Alemseged G.       | (WIND)        | PhD student                           |
| West, Ole                      | (MEK-MTU)     | PhD student                           |

|                         |               |                                     |
|-------------------------|---------------|-------------------------------------|
| Westlye, Frederik Ree   | (MEK-TES)     | PhD student                         |
| Wiggers, Sine Leergaard |               | Elected member, Associate Professor |
| Wind-Willassen, Øistein | (COMPUTE)     | PhD student                         |
| Winther, Grethe         | (MEK-MTU)     | Associate Professor, Dr. techn.     |
| Wronski, Jorrit         | (MEK-TES)     | PhD student                         |
| Wu, Guanglei            | (M-TECH, AAU) | PhD student                         |
| Wöhner, Timo            | (MEK-MPP)     | PhD student                         |
| Wörösch, Michael        | (MEK-K&P)     | PhD student                         |
| Yang, Jian              | (M-TECH, AAU) | Staff member with university degree |
| Zadeh, Maziyar Nesari   | (M-TECH, AAU) | PhD student                         |
| Zafar, Ashar            | (M-TECH, AAU) | PhD student                         |
| Zhang, Xuping           | (ENG, AU)     | Associate Professor                 |
| Zhang, Yang             | (MEK-MPP)     | PhD student                         |
| Zhou, Lelai             | (M-TECH, AAU) | PhD student                         |
| Zhou, Mingdong          | (MEK-FAM)     | Postdoc                             |
| Zhu, Wei Jun            | (WIND)        | Senior Researcher                   |
| Zike, Sanita            | (WIND)        | PhD student                         |
| Øye, Stig               | (WIND)        | Senior Researcher                   |
| Aage, Niels             | (MEK-FAM)     | Researcher                          |

