

DANISH CENTER FOR APPLIED MATHEMATICS AND MECHANICS

ANNUAL REPORT
2017



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

DANISH CENTER FOR APPLIED MATHEMATICS AND MECHANICS

Scientific Council as of July 2018

Lars Vabbersgaard Andersen	Dept. of Engineering, AU
Jens H. Andreasen	Dept. of Materials and Production, AAU
Morten Brøns	DTU Compute
Horia Cornean	Dept. of Mathematical Sciences, AAU
Lars Damkilde	Dept. of Civil Engineering, AAU
Allan Peter Engsig-Karup	DTU Compute
Henrik Garde	Dept. of Mathematical Sciences, AAU
Jesper Henri Hattel,	Dept. of Mechanical Engineering, DTU
Poul G. Hjorth	DTU Compute
Jan Høgsberg,	Dept. of Mechanical Engineering, DTU
Lars Bo Ibsen	Dept. of Civil Engineering, AAU
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Holger Koss	DTU Civil Engineering
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Lars Pilgaard Mikkelsen	DTU Wind Energy
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Niels Leergaard Pedersen	Dept. of Mechanical Engineering, DTU
Pauli Pedersen	Dept. of Mechanical Engineering, DTU
Mathias Stolpe	DTU Wind Energy
Jens Nørkær Sørensen	DTU Wind Energy
Mads Peter Sørensen	DTU Compute
Sine Leergaard Wiggers	Institute of Technology and Innovation, SDU

Chairman

Associate Professor Niels Leergaard Pedersen

Department of Mechanical Engineering, Solid Mechanics.

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FOREWORD

This annual report about the year 2017 contains information on publications, seminars and guests. The annual report will primarily be made available electronically, however a limited amount will be printed and is available on request. The purpose of the report is to serve as a reference and documentation for accomplished activities. The detailed information is available on our homepage www.dcammm.dk and on the homepages of the cooperating departments.

The 16th bi-annual internal DCAMM Symposium was held 13 – 15 March, 2017 at Comwell, Middelfart with 86 participants

In 2017 a total of 8 DCAMM seminars were given. The number of participants in these seminars were high indicating the importance of these events. A total of 13 courses were given in the auspices of DCAMM. The annual speaker seminar was this year given by Professor Zhigang Suo from Harvard University under the title Mechanics and chemistry of hydrogels. The lecture was given at DTU and AAU. All details are available at the DCAMM homepage.

As of January 1st 2018, 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 Materials and Production

Department of Mathematical Sciences

from **Aarhus University**

Department of Engineering

from **University of Southern Denmark**

Department of Technology and Innovation

I thank all the members of DCAMM and our international contacts for their support and inspiration, and I look forward to our future continued collaboration.

Niels Leergaard Pedersen

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1. MEMBERS 2017

48 professors
204 scientific members
127 PhD students

} at the nine cooperating departments at the Center

29 elected members
7 foreign members

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

2. FOREIGN MEMBERS

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.
Texas A&M University 3003
College Station
TX 77843-3003
USA

Professor S. Nemat-Nasser
Jacobs School of Engineering
University of California, San Diego
4209 Engineering Building 1
9500 Gilman Drive
La Jolla, CA 92093-0416
USA

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

3. GUESTS FOR EXTENDED PERIODS IN 2017 (more than a fortnight)

Guest professors & post docs:

Carlsson, Leif, Florida Atlantic University, USA, 1.5.17 – 31.5.17

Chen, Wei, Tianjin University of Technology, Tianjin, China, 1.12.17 – 6.7.18

Datta, Somantika, University of Idaho, USA, 15.7.17 – 25.8.17

Efendiyev, Messoud, Inst. of Comput. Biology, Munich, Germany, 2.10.17 – 20.12.17

Fidlin, Alexander, Karlsruhe Institute of Technology, Germany, 31.7.17 – 18.8.17

Gaididei, Yuri B, Bogolyubov Inst. For Theoretical Physics, Ukraine, 1.3.17 – 29.4.17 & 2.10.17 – 28.11.17

Kim, Rae Young, Yeungnam University, Korea, 19.7.17 – 27.8.17

Kimita, Koji, Tokyo Metropolitan University, Japan, 1.9.17 – 31.3.18

Lebensohn, Ricardo, Los Alamos Labs, 17.7.17 – 18.9.17

Mora, Luis Saucedo, National Research Council, Madrid, CSIC, Spain, 16.1.17 – 16.2.17

Puthumana, Govindan, Indian Institute of Technology, India, 19.1.17 – 30.4.17

Qi, Meilan, Beijing Jiaotong University, China, 27.2.17 – 31.3.17

Sui, Titu, Hohai University, Nanjing, China, 15.10.17 – 14.10.19

Taylor, Ray, University of Houston, USA, 1.8. – 30.9.17

Varela, Alejandro Cerda, Pontificia Universidad Católica de Valparaíso, Chile, 26.6.17 – 24.7.17

PhD students

- Adibeig, Mohammad Reza, University of Tabriz, Iran, 11.10.17 – 30.6.18
- Barelli, Élise, Campus de l'École Polytechnique, France, 13.2.17 – 10.3.17
- Chesmavar, Janhangir, Payame Noor Univ. Tehran, Iran, 15.7.17 – 20.8.17
- Coppola, Elena, University of Naples, Italy, 1.12.17 – 31.12.17
- Ferrari, Federico, Politecnico di Milan, Italy, 8.5.17 – 7.7.17
- Fagundes Goncalves, Juliano, Fed. Univ. of Rio Grande da Sul, Brazil, 7.8.17 – 30.11.17
- Gao, Wenjun, Tongji University, China, 2.10.17 – 22.9.2019
- Gómez, Pedro A.G., Universidad Carlos III de Madrid, Spain, 1.6.17 – 30.8.17
- Guerra, Maria Grazia, Polytechnic of Bari, Italy, 2.11.17 – 2.5.18
- Li, Yu, Northwestern Polytechnical University, China, 4.9.17 – 31.8.18
- Mirlohi, Fahimeh, University of Tehran, 1.7.17 – 31.12.17
- Mohammadreza, Sina, Babol University of Technology, Tabriz, Iran, 1.9.17 – 31.5.18
- Montanucci, Maria, Univ. degli Studii Della Basilicata, Italy, 1.4.17 – 30.5.17 & 1.8.17 – 28.11.17
- Pérez, Lucía Candela Díaz, University of Zaragoza, Spain, 3.9.17 – 3.12.17
- Quarto, Mariangela, University of Bergamo, Italy, 23.10.17 – 25.3.18
- Rashidi, Ehsan, Mohagheh Ardabili University, Iran, 1.1.17 – 28.4.17
- Song, Yulong, Xi'an Jiaotong University, China, 1.10.17 – 30.9.18
- Sun, Jialiang, Nanjing Univ. of Aeronautics and Astronautics, China, 4.9.17 – 31.8.18
- Vester-Petersen, Joakim, Aarhus School of Eng., DK, 23.1.17 – 22.2.17 og 4.7.17 – 21.7.17
- Xu, Yan, Harbin Engineering University, China, 1.9.17 – 31.7.21

4. PUBLICATIONS IN 2017

4A. INTERNATIONAL JOURNALS WITH PEER REVIEW

A

Akbar, Mahdi; Moin, Parviz

Large-eddy simulation of thermally stratified atmospheric boundary-layer flow using a minimum dissipation model. *Boundary-Layer Meteorology*, (2017), 165(3), 405–419.

Amini Afshar, M.; Bingham, H. B.

Solving the linearized forward-speed radiation problem using a high-order finite difference method on overlapping grids. *Applied Ocean Research* (2017), 69, 220–244.

Andersen, L. V.; Peplow, A.; Bucinkas, P.; Persson, P.; Persson, K.

Variation in models for simple dynamic structure–soil–structure interaction problems. *Procedia Engineering* (2017), 199, 2306–2311.

Bayat, M.; Andersen, L. V.; Ibsen, L. B.; Clausen, J. C.

Influence of pore water in the seabed on dynamic response of offshore wind turbines on monopiles. *Soil Dynamics and Earthquake Engineering* (2017), 100(2017), 233-248.

Peplow, A.; Andersen, L. V.; Bucinkas, P.

Environmental vibration reduction utilizing an array of mass scatterers. *Procedia Engineering* (2017), 199, 1368-1373.

Persson, P.; Andersen, L. V.; Persson, K.; Bucinkas, P.

Effect of structural design on traffic-induced building vibrations. *Procedia Engineering* (2017), 199, 2711–2716.

Andersen, M.S.; de Zee, M.; Damsgaard, M.; Nolte, D.; Rasmussen, J.

Introduction to Force-dependent Kinematics: Theory and Application to Mandible Modeling. *Journal of Biomechanical Engineering* (2017), 139(9).

Dell’Isola, A.; Smith, S.; Andersen, M.S.; Steultjens, M.

Knee Internal Contact Force in a Varus Malaligned Phenotype in Knee Osteoarthritis. *Osteoarthritis and Cartilage* (2017), 25(12), 2007-2013.

Eltoukhy, M.; Kuenze, C.; Andersen, M.S.; Oh, J.; Signorile, J.F.

Prediction of Ground Reaction Forces for Parkinson’s Disease Patients Using a Kinect-Driven Musculoskeletal Gait Analysis Model. *Medical Engineering & Physics* (2017), 50, 75-82.

Karatsidis, A.; Bellusci, G.; Schepers, H.M.; de Zee, M.; Andersen, M.S.; Veltink, P.H.

Estimation of ground reaction forces and moments during gait using only inertial motion capture. *Sensors* (2017), 17(1).

Marra, M.A.; Andersen, M.S.; Damsgaard, M.; Koopman, B.H.F.J.M.; Janssen, D.; Verdonschot, N.

Evaluation of a surrogate contact model in force-dependent kinematic simulations of total knee replacement. *Journal of Biomechanical Engineering* (2017), 139(8).

Skals, S.L.; Jung, M.; Damsgaard, M.; Andersen, M.S.

Prediction of ground reaction forces and moments during sports-related movements. *Multibody System Dynamics* (2017), 39(3), 175-195.

Skals, S.; Rasmussen, K.P.; Bendtsen, K.M.; Yang, J.; Andersen, M.S.

A Musculoskeletal Model Driven by Dual Microsoft Kinect Sensor Data. *Multibody System Dynamics* (2017), 41(4), 297-316.

Vanheule, V.; Delport, H.P.; Andersen, M.S.; Scheys, L.; Wirix-Speetjens, R.; Jonkers, I.; Vander Sloten, J.

Evaluation of predicted knee function for component malrotation in total knee arthroplasty. *Medical Engineering & Physics* (2017), 40(1), 56-64.

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

Turbulence and entrainment length scales in large wind farms. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* (2017), 375(2091), 20160107-20160107.

Hasager, C. B.; Nygaard, N. G.; Volker, P.; Karagali, I.; Andersen, S. J.; Badger, J.

Wind Farm Wake: The 2016 Horns Rev Photo Case. *Energies* (2017), 10(3).

Irizar, V.; Andreasen, C. S.

Hydraulic pitch control system for wind turbines: Advanced modeling and verification of an hydraulic accumulator. *Simulation Modelling Practice and Theory* (2017), 79, 1-22.

Arabkoohsar, A.; Andresen, G. B.

Supporting district heating and cooling networks with a bifunctional solar assisted absorption chiller. *Energy Conversion and Management* (2017), 148, 184-196.

Arabkoohsar, A.; Dremark-Larsen, M.; Lorentzen, R.; Andresen, G. B.

Subcooled compressed air energy storage system for coproduction of heat, cooling and electricity. *Applied Energy* (2017), 205, 602-614.

Arabkoohsar, Ahmad; Andresen, Gorm Bruun

A New Bifunctional Energy Storage Solution for Conventional and Renewable Energy Power Plants. *Journal of Clean Energy Technologies* (2017), 5(6), 454-457.

Arabkoohsar, Ahmad; Andresen, Gorm Bruun

Design and analysis of the novel concept of high temperature heat and power storage. *Energy* (2017), 126, 21-33.

Arabkoohsar, Ahmad; Andresen, Gorm Bruun

Dynamic Energy, Exergy and Market Modeling of a High Temperature Heat and Power Storage System. *Energy* (2017), 126, 430-443.

Arabkoohsar, Ahmad; Andresen, Gorm Bruun

Thermodynamics and economic performance comparison of three high-temperature hot rock cavern based energy storage concepts. *Energy* (2017), 132, 12-21.

Dahl, Magnus; Brun, Adam; Andresen, Gorm Bruun

Decision rules for economic summer-shutdown of production units in large district heating systems. *Applied Energy* (2017), 208, 1128-1138.

Dahl, Magnus; Brun, Adam; Andresen, Gorm

Using ensemble weather predictions in district heating operation and load forecasting. *Applied Energy* (2017), 193, 455-465.

Gautam, Khem Raj; Andresen, Gorm Bruun

Performance comparison of building-integrated combined photovoltaic thermal solar collectors (BiPVT) with other building-integrated solar technologies. *Solar Energy* (2017), 155, 93-102.

Martakos, G.; Andreasen, J. H.; Berggreen, C.; Thomsen, O. T.

Experimental investigation of interfacial crack arrest in sandwich beams subjected to fatigue loading using a novel crack arresting device. *Journal of Sandwich Structures and Materials*, (2017), 0.

Martakos, G.; Andreasen, J. H.; Berggreen, C.; Thomsen, O. T.

Interfacial Crack Arrest in Sandwich Panels with Embedded Crack Stoppers Subjected to Fatigue Loading. *Applied Composite Materials* (2017), 24(1), 55-76.

Andreasen, J. G.; Meroni, A.; Haglund, F.

A Comparison of Organic and Steam Rankine Cycle Power Systems for Waste Heat Recovery on Large Ships. *Energies* (2017), 10(4).

Cignitti, S.; Andreasen, J. G.; Haglund, F.; Woodley, J.; Abildskov, J.

Integrated working fluid-thermodynamic cycle design of organic Rankine cycle power systems for waste heat recovery. *Applied Energy* (2017), 203, 442-453.

Larsen, U.; Wronski, J.; Andreasen, J. G., Baldi, F.; Pierobon, L.

Expansion of organic Rankine cycle working fluid in a cylinder of a low-speed two-stroke ship engine. *Energy* (2017), 119, 1212-1220.

Mondejar, M. E.; Andreasen, J. G.; Regidor, M.; Riva, S.; Kontogeorgis, G.; Persico, G.; Haglund, F.

Prospects of the use of nanofluids as working fluids for organic Rankine cycle power systems. *Energy Procedia* (2017), 129, 160-167.

Andreassen, M.J.; Yu, Z.; Liu, S.; Nielsen, J.H.

The influence of plate thickness on the welding residual stresses from submerged arc welding in offshore steel structures. *Ce/papers* (2017), 1(2-3), 499-504.

Alhajri, R.; Liu, S.; Yu, Z.; Andreassen, M.J.
Quantification of Residual Stresses in External Attachment Welding Applications. *Welding Journal* (2017), 96 (12), 451s-466s.

Andriollo, T.; Thorborg, J.; Hattel, J. H.
Analysis of the equivalent indenter concept used to extract Young's modulus from a nano-indentation test: some new insights into the Oliver–Pharr method. *Modelling and Simulation in Materials Science and Engineering* (2017), 25(4).

Arora, V.
Identification of viscous and structural damping in the dynamic system. *International Journal of Structural Engineering* (2017), 8(4), 345-360.

Calvo Álvarez, A.; Arora, V.
Natural frequencies-based stochastic finite element model updating using equal weighting factors. *International Journal of Structural Engineering* (2017), 8(3), 227-288.

B

Bai, S.
Geometric analysis of coupler-link mobility and circuits for planar four-bar linkages. *Mechanism and Machine Theory* (2017), 118, 53-64.

Du, Y.; Li, R.; Li, D.; Bai, S.
An ankle rehabilitation robot based on 3-RRS spherical parallel mechanism. *Advances in Mechanical Engineering* (2017), 9(8), 1-8.

Li, R.; Wang, S.; Fan, D.; Du, Y.; Bai, S.
Dynamic Modeling of a 2-RPU+2-UPS Hybrid Manipulator for Machining Application. *Modeling, Identification and Control (Online)* (2017), 38(4), 169-184.

Liu, B.; Ma, Y.; Wang, D.; Bai, S.; Li, Y.; Li, K.
Kinematic Design of a Seven-Bar Linkage with Optimized Centroides for Pure-Rolling Cutting. *Mathematical Problems in Engineering* (2017).

Liu, J.; Deng, H.; Chen, W.; Bai, S.
Robust dynamic decoupling control for permanent magnet spherical actuators based on extended state observer. *IET Control Theory & Applications* (2017), 11(5), 619-631.

Qu, S.; Li, R.; Bai, S.
Type Synthesis of 2T1R Decoupled Parallel Mechanisms Based on Lie Groups and Screw Theory. *Mathematical Problems in Engineering* (2017), 8304312

Xu, K.; Li, L.; Bai, S.; Yang, Q.; Ding, X.
Design and analysis of a metamorphic mechanism cell for multisage orderly deployable/retractable mechanism. *Mechanism and Machine Theory* (2017), 111, 85-98.

Zhou, L.; Bai, S.; Li, Y.

Energy optimal trajectories in human arm motion aiming for assistive robots. *Modeling, Identification and Control* (2017), 38(1), 11-19.

Zhou, L.; Li, Y.; Bai, S.

A human-centered design optimization approach for robotic exoskeletons through biomechanical simulation. *Robotics and Autonomous Systems* (2017), 91, 337-347.

Bak, B.L.V.; Turon, A.; Lindgaard, E.; Lund, E.

A benchmark study of simulation methods for high-cycle fatigue-driven delamination based on cohesive zone models. *Composite Structures* (2017), 164, 198-206.

Barlas, E.; Zhu, W. J.; Shen, W. Z.; Dag, K. O.; Moriarty, P.

Consistent modelling of wind turbine noise propagation from source to receiver. *Acoustical Society of America. Journal* (2017), 142(5).

Barlas, E.; Zhu, W. J.; Shen, W. Z.; Kelly, M. C.; Andersen, S. J.

Effects of wind turbine wake on atmospheric sound propagation. *Applied Acoustics* (2017), 122, 51-61.

Anbar, N.; Bassa, A.; Beelen, P.

A complete characterization of Galois subfields of the generalized Giulietti–Korchmáros function field. *Finite Fields and Their Applications* (2017), 48, 318-330.

Anbar Meidl, N.; Beelen, P.

A Note on a Tower by Bassa, Garcia and Stichtenoth. *Functiones et Approximatio Commentarii Mathematici* (2017), 57(1), 47-60.

Anbar Meidl, N.; Beelen, P.; Nguyen, N.

A new tower with good p-rank meeting Zink's bound. *Acta Arithmetica* (2017), 177(4), 347-374.

Beelen, P.; Datta, M.; Ghorpade, S. R.

Maximum number of common zeros of homogeneous polynomials over finite fields. *Proceedings of the American Mathematical Society* (2017).

Beelen, P.; Glynn, D.; Høholdt, T.; Kaipa, K.

Counting generalized Reed-Solomon codes. *Advances in Mathematics of Communication* (2017), 11(4), 777—790.

Andersen, A. P.; Bohr, T.; Schnipper, T.; Walther, J. H.

Wake structure and thrust generation of a flapping foil in two-dimensional flow. *Journal of Fluid Mechanics* (2017), 812.

Boorla, S. M.; Eifler, T.; Jepsen, J. D. O.; Howard, T. J.

Capability Database of Injection Molding Process— Requirements Study for Wider Suitability and Higher Accuracy. *Journal of Polymer & Composites* (2017), 5(2), 18-28.

Boorla, S. M.; Eifler, T.; Howard, T. J.; McMahon, C. A.
Mass Production Tools and Process Readiness for Uniform Parts—Injection Molding Application. *Journal of Polymer & Composites* (2017), 5(3), 30-40.

Boorla, S. M.; Troldtoft, M. E.; Eifler, T.; Howard, T. J.
Quantifying the robustness of process manufacturing concept – A medical product case study. *Advances in Production Engineering & Management* (2017), 12(2), 127-138.

Brandt, A.; Berardengo, M.; Manzoni, S.; Cigada, A.
Scaling of mode shapes from operational modal analysis using harmonic forces. *Journal of Sound and Vibration* (2017), 407, 128-143.

Brandt, A.; Orlovitz, E.
Comparison of experimental and operational modal analysis on a laboratory test plates. *Measurement* (2017), 102, 121-130.

Bredmose, H.; Lemmer, F.; Borg, M. B.; Pegalajar-Jurado, A. M.; Mikkelsen, R. F.; Larsen, T. S.; Fjelstrup, T.; Yu, W.; Lomholt, A. K.; Boehm, L.; Armendariz, J. A.
The Triple Spar campaign: Model tests of a 10MW floating wind turbine with waves, wind and pitch control. *Energy Procedia* (2017), 137, 58-76.

Ghadirian, A.; Bredmose, H.; Schløer, S.
Prediction of the shape of inline wave force and free surface elevation using First Order Reliability Method (FORM). *Energy Procedia* (2017), 137, 162-176.

Schløer, S.; Bredmose, H.; Ghadirian, A.
Analysis of experimental data: The average shape of extreme wave forces on monopile foundations and the NewForce model. *Energy Procedia* (2017), 137, 223-237.

Yu, W.; Lemmer, F.; Bredmose, H.; Borg, M.; Pegalajar Jurado, A. M.; Mikkelsen, R. F.; Larsen, T. S.; Fjelstrup, T.; Lomholt, A. K.; Boehm, L.; Schlipf, D.; Armendariz, J. A.; Cheng, P. W.
The Triple Spar Campaign: Implementation and Test of a Blade Pitch Controller on a Scaled Floating Wind Turbine Model. *Energy Procedia* (2017), 137, 323-338.

Biot, S.; Madsen, C. B.; Kruizinga, A. G.; Christensen, T.; Crépet, A.; Brockhoff, P. B.
A procedure for grouping food consumption data for use in food allergen risk assessment. *Journal of Food Composition and Analysis* (2017), 59, 111-123.

Brockhoff, P. B.; Hansen, E.; Ekstrøm, C. T.
Lineær regression: lidt mere tekniske betragtninger om R^2 og et godt alternativ. *Biofag* (2017), 25-31.

Kuznetsova, A.; Brockhoff, P.B.; Christensen, R.H.B.
ImerTest Package: Tests in Linear Mixed Effects Models. *Journal of Statistical Software* (2017), 82(13).

Bræstrup, M.W.

Discussions of A T Moczko, N Carino & C G Petersen: CAPO-TEST to estimate concrete strength in bridges. *ACI Materials Journal* (2017), 114(5).

Brøns, M.; Kristiansen, K. U.

On the approximation of the canard explosion point in singularly perturbed systems without an explicit small parameter. *Dynamical Systems* (2017), 1-23.

Heil, M.; Rosso, J.; Hazel, A.L.; Brøns, M.

Topological fluid mechanics of the formation of the Kármán-vortex street. *Journal of Fluid Mechanics* (2017), 812, 199-221.

Bucinkas, P.; Andersen, L. V.

Semi-analytical approach to modelling the dynamic behaviour of soil excited by embedded foundations. *Procedia Engineering* (2017), 199, 2621–2626.

Budzik, Michal Kazimierz; Jumel, J.

Inverse End Loaded Split test configuration for stable mode II crack propagation in bonded joint: macroscopic analysis—effective crack length approach. *International Journal of Fracture* (2017, 207(1) 27-39.

Heide-Jørgensen, Simon; Budzik, Michal Kazimierz

Crack growth along heterogeneous interface during the DCB experiment. *International Journal of Solids and Structures* (2017), 120, 278-291.

Landowski, M.; Strugala, G.; Budzik, Michal Kazimierz; Imielińska, K.

Impact damage in SiO₂ nanoparticle enhanced epoxy – Carbon fibre composites. *Composites Part B: Engineering* (2017), 113, 91-99.

Møberg, Alex; Budzik, Michal Kazimierz; Jensen, Henrik Myhre

Crack front morphology near the free edges in double and single cantilever beam fracture experiments. *Engineering Fracture Mechanics* (2017), 175, 219-234.

C

Calaon, M.; Tosello, G.; Garnaes, J.; Hansen, H. N.

Injection and injection-compression moulding replication capability for the production of polymer lab-on-a-chip with nano structures. *Journal of Micromechanics and Microengineering* (2017), 27(10).

Speranza, V.; Liparotia, S.; Calaon, M.; Tosello, G.; Pantania, R.; Titomanlio, G.

Replication of micro and nano-features on iPP by injection molding with fast cavity surface temperature evolution. *Materials & Design* (2017), 133, 559-569.

Chen, H.; Christensen, E. D.

Development of a numerical model for fluid-structure interaction analysis of flow through and around an aquaculture net cage. *Ocean Engineering* (2017), 142, 597-615.

Benavente, A.; Christensen, O.; Zakowicz, M. I.

Generalized shift-invariant systems and approximately dual frames. *Annals of Functional Analysis* (2017), 8(2), 177-189.

Christensen, O.; Hasannasab, M.

Operator Representations of Frames: Boundedness, Duality, and Stability. *Integral Equations and Operator Theory* (2017), 88(4), 483-499.

Christensen, O.; Kim, H. O.; Kim, R. Y.

B-Spline Approximations of the Gaussian, their Gabor Frame Properties, and Approximately Dual Frames. *Journal of Fourier Analysis and Applications* (2017), 1-22.

Christensen, O.; Kim, H. O.; Kim, R. Y.

Characterisations of Partition of Unities Generated by Entire Functions in Cd. *Australian Mathematical Society: Bulletin* (2017), 95(2), 281-290.

Christensen, O.; Zakowicz, M. I.

Paley-wiener type perturbations of frames and the deviation from perfect reconstruction. *Azerbaijan Journal of Mathematics* (2017), 7(1), 59-69.

Massopust, P.; Forster, B.; Christensen, O.

Fractional and complex pseudo-splines and the construction of Parseval frames. *Applied Mathematics and Computation* (2017), 314, 12-24.

Christiansen, C. K.; Walther, J. H.; Klit, P.; Vølund, A.

Investigation of journal orbit and flow pattern in a dynamically loaded journal bearing. *Tribology International* (2017), 114, 450-457.

Christiansen, P.; Nielsen, C. V.; Martins, P. A. F.; Bay, N. O.

Predicting the onset of cracks in bulk metal forming by ductile damage criteria. *Procedia Engineering* (2017), 207, 2048-2053.

Üstünyagiz, E.; Christiansen, P.; Nielsen, C. V.; Bay, N. O.; Martins, P. A. F.

Revisiting liquid lubrication methods by means of a fully coupled approach combining plastic deformation and liquid lubrication. *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology* (2017), 231(11), 1425-1433.

Fernandez Grande, E.; Christiansen, R. E.

Experimental characterization of the Green's function in a room using sparse reconstruction principles. *Journal of the Acoustical Society of America* (2017), 142(4), 2717-2717.

Gatto, P.; Hesthaven, J. S.; Christiansen, R. E.

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- S163: BUREAU, EMIL: Experimental Bifurcation Analysis Using contro-Based continuation (January 2014)
- S164: VAJARI, DANIEL ASHOURI: Micromechanical failure in fiber-reinforced composites (March 2014)
- S165: JOHANSEN, AXEL OHRT: Numerical study of evaporators in power plants for improved dynamic flexibility (March 2013)
- S166: ANDERSEN, INGRID MARIE VINCENT: Full Scale Measurements of the Hydro-Elastic Response of Large Container Ships for Decision Support (April 2014)
- S167: GIVERSEN, SØREN: Blast Testing and Modelling of composite Structures (March 2014)
- S168: SAREMI, SINA: Density-Driven Currents and Deposition of Fine Materials (April 2014)
- S169: CERULLO, MICHELE: Computational stress and damage modelling for rolling contact fatigue (September 2014)
- S170: NGUYEN, TUONG-VAN: Modelling, analysis and optimization of energy systems on offshore platforms (October 2014)
- S171: AMINI AFSHAR, MOSTAFA: Towards Predicting the Added Resistance of Slow Ships in Waves (October 2014)
- S172: ANDREASSEN, ERIK: Optimal Design of Porous Materials (January 2015)
- S173: JOHANSEN, VILLADS EGEDE: Structural colours and applications to anodized aluminium surfaces (November 2014)

- S174: BRUUN, HANS PETER LOMHOLT: PLM support to architecture based development – Contribution to computer-supported architecture modelling (January 2015)
- S175: FUGLEDE, NIELS: Kinematics and Dynamics of Roller Chain Drives (July 2014)
- S176: LARSEN, ULRIK: Design and modelling of innovative machinery systems for large ships (October 2014)
- S177: LARSEN, JON STEFFEN: Nonlinear Analysis of Rotors Supported by Air Foil Journal Bearings – Theory & Experiments (February 2015)
- S178: INGVORSEN, KRISTIAN MARK: Investigations of the turbulent swirling flow in a two-stroke marine diesel engine (November 2013)
- S179: ERIKSEN, RASMUS NORMANN: High Strain Rate characterization of Composite materials (March 2014)
- S180: PEDERSEN, BENJAMIN PJEDSTED: Data-driven Vessel Performance Monitoring (June 2014)
- S181: JANAKIRAMAN, SHRAVAN: Fatigue and Wear in Rolling and Sliding Contacts (November 2014)
- S182: CHRISTIANSEN, NIELS HØRBYE: Hybrid Method Simulation of Slender Marine Structures (August 2014)
- S183: PIEROBON, LEONARDO: Novel design methods and control strategies for oil and gas offshore power systems (October 2014)
- S184: DOU, SUGUANG: Gradient-based optimization in nonlinear structural dynamics (April 2015)
- S185: CORDTZ, RASMUS FAURSKOV: The Influence of Fuel Sulfur on the Operation of Large Two-Stroke Marine Diesel Engines (January 2014)
- S186: JEPSEN, ALLAN DAM: ARCHITECTURE DESCRIPTIONS – A contribution to Modeling of Production System Architecture (September 2014)
- S187: OMMEN, TORBEN SCHMIDT: Heat Pumps in CHP Systems. High-efficiency Energy System Utilising Combined Heat and Power and Heat Pumps (April 2015)
- S188: MODI, ANISH: Numerical evaluation of the Kalina cycle for concentrating solar power plants (August 2015)
- S189: ENEMARK, SØREN: Integration of shape Memory Alloys into Low-Damped Rotor-Bearing Systems – Modelling, Uncertainties and Experimental Validation (October 2015)

S190: WRONSKI, JORRIT: Design and Modelling of Small Scale Low Temperature Power Cycles (May 2015)

S191: ANDERSEN, FREDERIK HERLAND: Integrated Analysis of the Scavenging Process in Marine Two-Stroke Diesel Engines (August 2015)

S192: GUOLAUGSSON, TÓMAS VIGNIR: Modelling architectures in multi-product oriented technology development (July 2015)

S193: CHRISTIANSEN, CHRISTIAN KIM: Diesel Engine Tribology (December 2015)

S194: COSTACHE, ANDREI: Anchoring FRP Composite Armor in Flexible Offshore Riser Systems (October 2015)

S195: COUTURIER, PHILIPPE JACQUES: Structural modelling of composite beams with application to wind turbine rotor blades (January 2016)

S196. VÁSQUEZ, FABIÁN GONZALO PIERART: Model-Based Control Design for flexible Rotors Supported by Active Gas Bearings - Theory & Experiment (January 2016)

S197. MAZZUCCO, ANDREA: Tank designs for combined high-pressure gas and solid-state hydrogen storage (January 2016)

S198. HEJLESEN, MADDS MØLHOLM: A high order regularisation method for solving the Poisson equation and selected applications using vortex methods (February 2016)

S199. ÓLAFSSON, ÖLAFUR MAGNÚS: Improved Design Basis of Welded Joints in Seawater (March 2016)

S200. PARSLOV, JAKOB FILIPPSON: Defining Interactions and Interfaces in Engineering Design (March 2016)

S201. FRANDBSEN, NIELS MORTEN MARSLEV: Design of advanced materials for linear and nonlinear dynamics (April 2016)

S202. MONTAZERI, NAJMEH: Estimation of waves and ship responses using onboard Measurements (March 2016)

S203. BRODERSEN, MARK LAIER: Damping of Wind turbine tower vibrations (December 2015)

S204. MANCA, MARCELLO: Fracture Characterization of Sandwich Face/Core Interfaces (March 2015)

S205. ANDERSEN, JAKOB BEJBRO: PSS Support for Maritime Technology Ventures: From Exploration to Methodology and Theory (November 2015)

- S206. MOUGAARD; KRESTINE: A framework for conceptualisation of PSS solutions: On network-based development models (January 2016)
- S207. JENSEN, JONAS KJÆR: Industrial heat pumps for high temperature process applications - A numerical study of the ammonia-water hybrid absorption-compression heat pump (December 2015)
- S208. CHRISTIANSEN, RASMUS E.: Topology Optimization for Wave Propagation Problems with Experimental Validation (June 2016)
- S209. NEUMEYER, STEFAN: Macromechanical Parametric Amplification (April 2016)
- S210. MADSEN, STINE SKOV: Dynamic Modeling of Pavements with Application to Deflection Measurements (July 2016)
- S211. SALAZAR, JORGE ANDRÉS GONZÁLEZ: Towards Model-Based Control Design for Flexible Rotors Supported by Active Tilting Pad Bearings - Theory & Equipment (August 2016)
- S212. VOIGT, ANDREAS JAUERNIK: Towards Identification of Rotordynamic Properties for Seals in Multiphase Flow Using Active Magnetic Bearings. Design and Commissioning of a Novel Test Facility (June 2016)
- S213. EL-NAAMAN, SALIM ABDALLAH: Micro-Structural Evolution and Size-Effects in Plastically Deformed Single Crystals - Strain Gradient Continuum Modeling (July 2016)
- S214. CLAUSEN, ANDERS: Topology Optimization for Additive Manufacturing (September 2016)
- S215. RAVN, POUL MARTIN: Coherent Architecture Development as a Basis for Technology Development (December 2015)
- S216. ALEXANDERSEN, JOE: Efficient topology optimisation of multiscale and multiphysics problems (September 2016)
- S217. KONTOS, STAVROS: Robust Numerical Methods for Nonlinear Wave-Structure Interaction in a Moving Frame of Reference (August 2016)
- S218. LYTCHKE-JØRGENSEN, CHRISTOFFER: Design and optimization of flexible multi-generation systems (April 2016)
- S219. CHRISTENSEN, MARTIN EBRO: Applying Robust Design in an Industrial Context (August 2015)
- S220. HØGH, JACOB HEROLD: Hybrid Simulation of Composite Structures (January 2016)

S221. NIELSEN, BO BJERREGAARD: Combining Gas Bearing and Smart Material Technologies for Improved Machine Performance Theory and Experiment (July 2016)

S222. OBEIDAT, ANAS: Development of Smoothed Particle Hydrodynamics for flow in Complex Geometries and Application of Open Source Software for the Simulation of Turbulent Flow (June 2014)

S223. REGENER, PELLE BO: Hull-Propeller Interaction and Its Effect on Propeller Cavitation (November 2016)

S224. GÖHLER, SIMON MORITZ: Metric-driven Robust Design – Robustness Quantification of Complex Engineering Systems (February 2017)

S225. LAURIDSEN, JONAS: Control design of Active Magnetic Bearings for Rotors Subjected to Destabilising Seal Forces Theory & Experiment (May 2017)

S226. WESTLYE, FREDRIK REE: Experimental Study of Liquid Fuel Spray Combustion (June 2016)

S227. SIGURJONSSON, HAFTHOR ÆGIR: Modeling and Evaluation of Bioenergy and Agriculture system Integration (January 2016)

S228. LINHARES DA FONSECA, CESAR AUGUSTO LAMPE: A theoretical-experimental study of backup bearings – The pinned vs ball bearing (July 2017)

S229. KERMANI, NASRIN ARJOMAND: Design and prototyping of an ionic liquid piston compressor as a new generation of compressor for hydrogen refueling stations (May 2017)

S230. NØRGAARD, SEBASTIAN ARLUND: Topology optimization and lattice Boltzmann methods (October 2017).

S231. BAJRIĆ-HODŽIĆ, ANELA: Identification of damping from structural vibrations (October 2017)

S233. PEDERSEN, SØREN NYGAARD: Perceptual Robust Design (January 2017)

S234. NELLEMAN, CHRISTOPHER: Micro-structural evolution in plastically deformed crystalline materials (December 2017)

6. OTHER THESES

ANDRILLO, TITO: “Graphite nodules and local residual stresses in ductile iron: Thermomechanical modeling and experimental validation”, DTU Mechanical Engineering, 2017, PhD Thesis.

BJERRE, MATHIAS KARSTEN: “In-situ observations of graphite formation during solidification of cast iron”, DTU Mechanical Engineering, 2017, PhD Thesis.

BOSSOLINI, ELENA: “Geometric singular perturbation analysis of systems with friction”, DTU Compute, Department of Applied Mathematics and Computer Science, 2017, PhD Thesis.

CONSEIL-GUDLA, HELENE: “Parametric study of interior climate in electronic device enclosures and corrosion reliability”, DTU Mechanical Engineering, 2017, PhD Thesis.

DALLA COSTA, GUISEPPE: “Accurate dimensional measurements in production environment using Dynamic Length Metrology”, DTU Mechanical Engineering, 2017, PhD Thesis.

DAM, MAGNUS: “Topological bifurcations of coherent structures and dimension reduction of plasma convection model”, DTU Compute, Department of Applied Mathematics and Computer Science, 2017, PhD Thesis.

DE OLDE, EVELIEN: “Sustainable development of agriculture: contribution of farm-level assessment tools”, AU Mechanical Engineering, 2017, PhD Thesis.

FASANO, ANDREA: “The process chain in micro-structured polymer optical fibre production”, DTU Mechanical Engineering, 2017, PhD Thesis.

HANSEN, JANNICK BALLEBY: “Scenario-based Structural Damage Localization and Quantification Using Operational Modal Analysis”, AU CIVIL and Architectural Engineering, 2017, PhD Thesis.

HEILMANN, IRENE LOUISE TORPE: “Analysis of trait-bases models in marine ecosystems”, DTU Compute, Department of Applied Mathematics and Computer Science, 2017, PhD Thesis.

HERFELDT, MORTEN ANDERSEN: “Numerical Limit Analysis of Precast Concrete Structures – A Framework for Efficient Design and Analysis”, DTU Civil Engineering, 2017, PhD Thesis.

HOVAD, EMIL: “Numerical Modelling of flow and compression of green sand”, DTU Mechanical Engineering, 2017, PhD Thesis.

JESPERSEN, KRISTINE MUNK: “Fatigue damage evolution in fibre composites for wind turbine blades”, DTU Wind Energy, 2017, PhD Thesis.

JUUL, NICOLAI YTTERDAL: “Characterisation and Modelling at the Grain Scale During Plastic Deformation”, DTU Mechanical Engineering, 2017, PhD Thesis.

JØRGENSEN, JEPPE BJØRN: “Adhesive Joints in Wind Turbine Blades”, DTU Wind Energy, 2017, PhD Thesis.

LAMPERT, FELIX: “Thin Glass Coatings for the corrosion Protection of Metals”, DTU Mechanical Engineering, 2017, PhD Thesis.

MØBERG, ALEX: “Crack front morphology in layered materials”, AU Mechanical Engineering, 2017, PhD Thesis.

OEST, JACOB: “Structural Optimization with Fatigue Constraints”, Aalborg University, Department of Materials and Production, 2017, PhD Thesis.

PETKOV, KIRIL: “Numerical Modelling of Hot-Wire and Hot-Blade cutting processes”, DTU Mechanical Engineering, 2017, PhD Thesis.

QUAGLIOTTI, DANILO: “Multi Scale Micro and Nano Metrology for Advanced Precision Moulding Technologies”, DTU Mechanical Engineering, 2017, PhD Thesis.

SANDAL, KASPER: “Design Optimization of Jacket structures for Mass Production”, DTU Wind Energy, 2017, PhD Thesis.

SKAR, ASMUS: “Deterioration Models for Cement Bound Materials in Structural Design and Evaluation of Heavy Duty Pavements”, DTU Civil Engineering, 2017, PhD Thesis.

STOLFI, ALESSANDRO: “Integrated Quality Control of Precision Assemblies Using Computed Tomography”, DTU Mechanical Engineering, 2017, PhD Thesis.

SULAIMAN, MOHD HAFIS BIN: “Development and testing of tailored tool surfaces for sheet metal forming”, DTU Mechanical Engineering, 2017, PhD Thesis.

WENDT, SABRINA LYNGBYE: “Modeling Pharmacokinetics and Pharmacodynamics of Glucagon for Simulation of the Glucoregulatory System in Patients with Type 1 Diabetes”, DTU Compute, Department of Applied Mathematics and Computer Science, 2017, PhD Thesis.

WANDJI, WILFRIED NJOMO: “Development of an advanced noise propagation model for noise optimization in wind farm”, DTU Wind Energy, 2017, PhD Thesis.

7. DCAMM SEMINARS GIVEN IN 2017

Professor Wen Jin Meng: Combined experimentation and simulation on mechanical failure of metal/ceramic interfacial regions. DTU Mechanical Engineering 15 June 2017. Louisiana State University, USA.

Associate Research Fellow Ronald Krueger: Face Sheet/Core Disbonding in Sandwich Composite Components: A Road Map to Standardization. DTU Mechanical Engineering 20 June 2017. National Institute of Aerospace and Resident at the NASA Langley Research Center, USA.

Professor Dennis M. Kochmann: From strong trusses to guided waves: computational challenges in truss metamaterials. DTU Mechanical Engineering 29 June 2017. Department of Mechanics and Materials, ETH, Zürich, Switzerland and Dept. of Aerospace at Caltech, USA

Research Engineer Jérémy Hure: Homogenized models for nanoporous metallic materials. DTU Mechanical Engineering 14 September 2017. French Alternative Energies and Atomic Energy Commission Department of Materials for Nuclear Applications Section for research on Irradiated Materials, France.

Senior Technical Fellow Jai Moo Kim: Tiltrotor UAV Development in Korea and Recent Progress for Performance Enhancement. DTU Wind Energy 6 October 2017. Korea Aerospace Research Institute, Korea.

Dr Iain Staffell: Modelling the weather-energy-economic nexus. Aarhus University, Department of Engineering 24 October 2017. Imperial College London, United Kingdom.

Associate Professor Albert Turon: Simulation of Delamination in 3D Composite Structures under Fatigue Loading. Aalborg University 20 November 2017. University of Girona, Spain.

Professor Nicholas Trantafyllidis: The p-n junction under nonuniform strains: General theory and application to photovoltaics. DTU Mechanical Engineering 4 December 2017. Solid Mechanics Laboratory (CNRS-UMR 7649) & Department of Mechanics, École Polytechnique, France.

8. DCAMM COURSES GIVEN IN 2017

DTU Mechanical Engineering

Experimental fluid dynamics and data interpretation
High Performance Computing: FORTRAN, OpenMP and MPI
Advanced Engineering Thermodynamics
Topology Optimization – Theory, Methods and Applications
PhD course on application of x-ray diffraction in materials science
PhD course on numerical modelling of polycrystalline plasticity
Micro Mechanical Systems Design and Manufacture (PhD summer school)
Nanotribology: Theory and application
Measurement uncertainty estimation using statistical methods

DTU Wind Energy

Analysis, Design and Testing of Floating Offshore Wind Turbine Structures (PhD summer school)

Aalborg University's Doctoral School of Engineering and Science

Fracture Mechanics for Laminated Composite Structures
Analysis of Wave Propagation in Structures and Solids

University of Southern Denmark, Odense

Experimental Structural Dynamics

APPENDIX: List of members 2017

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
 MECH, AAU: Department of Materials and Production

from Aarhus University

ENG, AU: Department of Engineering

from University of Southern Denmark

SDU-ITI: Dept. of Technology and Innovation

Aghabbabaei, Ramin	(ENG, AU)	Assistant Professor
Alexandersen, Joe	(MEK-FAM)	Postdoc
Ambat, Rajan	(MEK-MTU)	Professor
Amini Afshar, Mostafa	(MEK-FVM)	Postdoc
Andersen, Lars Vabbersgaard	(ENG, AU)	Professor, PhD
Andersen, Michael Skipper	(MECH, AAU)	Associate Professor
Andersen, Michael Styrk	(SDU-ITI)	PhD student
Andersen, Morten Thøtt	(CIVIL, AAU)	PhD student
Andersen, Poul	(MEK-FVM)	Associate Professor
Andersen, Rasmus Grau	(MEK-FAM)	PhD student
Andersen, Søren Juhl	(WIND)	Postdoc
Andreasen, Casper Schousboe	(MEK-FAM)	Associate Professor
Andreasen, Jens H.	(MECH, AAU)	Associate Professor, PhD
Andreasen, Jesper Graa	(MEK-TES)	Scientific Assistant
Andreasen, Mogens Myrup	(MEK-K&P)	Professor Emeritus
Andreasen, Michael Joachim	(CIVIL)	Associate Professor
Andresen, Gorm Bruun	(ENG, AU)	Assistant Professor
Andrillo, Tito	(MEK-MPP)	Postdoc
Arjomand Kermani, Nasrin	(MEK-TES)	PhD student
Arora, Vikas	(SDU-ITI)	Associate Professor

Asadzadeh, Seyed Saeed	(MEK-FVM)	PhD student
Azizi, Reza		Elected member, PhD
Back-Pedersen, Andreas		Elected member, PhD.
Bai, Shaoping	(MECH, AAU)	Associate Professor
Bak, Brian Lau Verndal	(MECH, AAU)	Postdoc
Balling, Ole	(ENG, AU)	Aff. Professor
Bang-Jensen, Jørgen	(SDU-MAT)	Professor
Barlas, Emre	(WIND)	PhD student
Baruffi, Federico	(MEK-MPP)	PhD student
Basdasso, Enrico	(MEK-TES)	Scientific Assistant
Baumbach, Jan	(SDU-MAT)	Associate Professor
Bay, Niels O.	(MEK-MPP)	Professor Emeritus
Beelen, Peter	(COMPUTE)	Associate Professor
Bellemo, Lorenzo	(MEK-TES)	Scientific Assistant
Bender, Jens Jakob	(MECH, AAU)	PhD student
Bendsøe, Martin		Elected member, Professor, dr. techn.
Berggreen, Christian	(MEK-FAM)	Associate Professor
Bingham, Harry B.	(MEK-FVM)	Associate Professor
Biondani, Francesco G.	(MEK-MPP)	PhD student
Bisacco, Giuliano	(MEK-MPP)	Associate Professor
Bjarklev, Kristian	(MEK-K&P)	PhD student
Boelskifte, Per	(MEK-K&P)	Professor
Bohr, Thomas		Elected member, Professor
Boll, Thomas Brinch	(MEK-MTU)	Scientific Assistant
Boorla, Srinvasa Murthy	(MEK-K&P)	PhD student
Borg, Michael	(WIND)	Postdoc
Borg, Ulrik		Elected member, Senior Engineer
Bossolini, Elena	(COMPUTE)	PhD student
Brander, David	(COMPUTE)	Associate Professor
Brandt, Anders	(SDU-ITI)	Associate Professor
Branner, Kim	(WIND)	Senior Researcher
Bredmose, Henrik	(WIND)	Associate Professor
Brilhuis-Meijer, Ellen	(MEK-K&P)	PhD student
Brockhoff, Per B.	(COMPUTE)	Head of Department, Professor
Bræstrup, M. W.		Elected member, PhD.
Bräuner, Lars	(ENG, AU)	Associate Professor
Brøns, Marie	(MEK-FAM)	PhD student
Brøns, Morten	(COMPUTE)	Professor, PhD
Budzik, Michal	(ENG, AU)	Assistant Professor
Bucinskias, Paulius	(CIVIL, AAU)	PhD student
Bussone, Andrea	(SDU-MAT)	PhD student
Calaon, Matteo	(MEK-MPP)	Postdoc
Carlsen, Henrik	(MEK-TES)	Professor Emeritus
Carlsen, Martin	(COMPUTE)	PhD student
Carstensen, Stefan	(MEK-FVM)	Associate Professor
Castro Ardilla, Oscar Gerardo	(WIND)	PhD student
Castro, Miguel Nobre	(MECH, AAU)	PhD student
Cederkvist, Jan		Elected member, PhD.
Checchi, Alessandro	(MEK-MPP)	PhD student
Chen, Hao	(MEK-FVM)	PhD student
Chen, Xiao	(WIND)	Researcher
Chirandini, Marco	(SDU-MAT)	Associate Professor
Chivae, Hamid Sarlek	(WIND)	Postdoc
Choobi, Mahsa Seyyedian	(MEK-MPP)	Postdoc
Christensen, Erik Damgaard	(MEK-FVM)	Professor, Head of Section
Christensen, Georg Kronborg	(MEK-K&P)	Associate Professor
Christensen, Ole	(COMPUTE)	Professor, dr.scient.

Christensen, Simon	(MECH, AAU)	PhD student
Christiansen, Christian Kim		Elected member, PhD.
Christiansen, Jesper De Claville	(MECH, AAU)	Professor
Christiansen, Peter	(MEK-MPP)	Researcher
Christiansen, Ramus Ellebæk	(MEK-FAM)	Postdoc
Christiansen, Rune Juul	(MEK-MTU)	PhD student
Christiansen, Thomas Lundin	(MEK-MTU)	Senior Scientist
Clausen, Johan Christian	(CIVIL, AAU)	Associate Professor
Clausen, Lasse Røngaard	(MEK-TES)	Assistant Professor
Colone, Lorenzo	(WIND)	PhD student
Comminal, Raphael Benjamin	(MEK-MPP)	Postdoc
Conseil, Helene	(MEK-MTU)	PhD student
Cordtz, Rasmus Fauriskov	(MEK-TES)	Postdoc
Dagnæs-Hansen, Nikolaj Aleksander	(MEK-FAM)	PhD student
Dahl, Kristian Vinter	(MEK-MTU)	Senior Researcher
Dalla, Guiseppe Costa	(MEK-MPP)	PhD student
Dam, Magnus	(COMPUTE)	PhD student
Damkilde, Lars	(CIVIL, AAU)	Professor
Dammann, Bernd	(COMPUTE)	Associate Professor
Danielsen, Hilmar K.	(WIND)	Senior Researcher
Darula, Radoslav	(MECH, AAU)	Postdoc
Das, Chitta Ranjan	(MEK-MTU)	Postdoc
De Chiffre, Leonardo	(MEK-MPP)	Professor
Debrabant, Kristian	(SDU-MAT)	Associate Professor
Dhar, Somrita	(WIND)	PhD student
Dias, Marcelo	(ENG, AU)	Assistant Professor
Didone, Mattia	(MEK-MPP)	PhD student
Diederichs, Annika Martina	(MEK-MTU)	PhD student
Dilgen, Cetin	(MEK-FAM)	PhD student
Dimitrov, Nikolai	(WIND)	Senior Researcher
Din, Rameez Ud	(MEK-MTU)	Postdoc
Doagou-Rad, Saeed	(MEK-MPP)	PhD student
Drakidis, Alexandros Dimitrios	(MEK-K&P)	Research Assistant
Drozдов, Aleksey	(MECH, AAU)	Professor
Dzialo, Christine Mary	(MECH, AAU)	PhD student
Eder, Martin Alexander	(WIND)	Researcher
Eifler, Tobias	(MEK-K&P)	Postdoc
Elmegaard, Brian	(MEK-TES)	Associate Professor, Head of Section
Eltard-Larsen, Bjarke	(MEK-FVM)	PhD student
Endelt, Benny Ørtoft	(MECH, AAU)	Associate Professor
Engsig-Karup, Allan	(COMPUTE)	Associate Professor
Eriksen, Rasmus Normann Wilken	(MEK-FAM)	Postdoc
Escalona, Jose	(ENG, AU)	Associate Professor
Farshidi, Arash	(MEK-FAM)	PhD student
Fasano, Andrea	(MEK-MPP)	PhD student
Fedorova, Irina	(MEK-MTU)	PhD student
Feng, Ju	(WIND)	Postdoc
Ferruzza, Davide	(MEK-TES)	PhD student
Fisker, Ann-Sofie	(COMPUTE)	PhD student
Frausing, Rasmus	(MEK-TES)	Scientific Assistant
Fredsøe, Jørgen	(MEK-FVM)	Professor Emeritus
Frier, Christian	(CIVIL, AAU)	Associate Professor, PhD
Fuhrman, David R.	(MEK-FVM)	Associate Professor
Garcia, Néstor Ramos	(WIND)	Researcher
Gervang, Bo	(ENG, AU)	Associate Professor
Ghadirian, Amin	(WIND)	PhD student
Giannekas, Nikolaos	(MEK-MPP)	Scientific Assistant

Gogebeur, Yuri	(SDU-MAT)	Associate Professor
Gopalakrishnan, Nimi	(MEK-MTU)	Postdoc
Gotfredsen, Erik	(MEK-FVM)	PhD student
Goutianos, Stergio	(WIND)	Senior Scientist
Graeme, Keith		Elected member
Gravesen, Jens	(COMPUTE)	Associate Professor, dr.phil
Greiner, Martin	(ENG, AU)	Professor
Groen, Jeroen Peter	(MEK-FAM)	PhD student
Gudla, Visweswara Chakravarthy	(MEK-MTU)	Postdoc
Gunneskov, Ole		Elected member, PhD.
Guzman, Jon Trifol	(MEK-MPP)	Postdoc
Göhler, Simon Moritz	(MEK-K&P)	PhD student
Hagdrup, Morten	(COMPUTE)	PhD student
Haglund, Fredrik	(MEK-TES)	Associate Professor
Hald, John	(MEK-MTU)	Professor MSA
Halkjær, Søren		Elected member, PhD
Hansen, Asger Bendix	(MEK-FVM)	PhD student
Hansen, Christian Valdemar	(SDU-MAT)	PhD student
Hansen, Claus Thorp	(MEK-K&P)	Associate Professor
Hansen, Hans Nørgaard	(MEK-MPP)	Professor, Head of Department
Hansen, Kurt Schaldemose	(WIND)	Senior Researcher
Hansen, Martin Otto Laver	(WIND)	Associate Professor
Hansen, Mette Sanne	(MEK-FVM)	Senior Researcher
Hansen, Per Chr.	(COMPUTE)	Professor, dr. techn.
Hasannasabjaldehakhani, Marzieh	(COMPUTE)	PhD student
Haselbach, Philipp	(WIND)	Researcher
Hassing, Henrik		Elected member, PhD
Hattel, Jesper Henri	(MEK-MPP)	Professor
Henningensen, Casper Schytte	(MEK-FVM)	PhD student
Henriksen, Christian	(COMPUTE)	Associate Professor, PhD
Hjorth, Poul	(COMPUTE)	Associate Professor, PhD
Hodzic, Azur	(MEK-FVM)	PhD student
Hoffmeyer, David	(MEK-FAM)	PhD student
Hofstätter, Thomas	(MEK-MPP)	PhD student
Holmsgaard, Rikke	(CIVIL, AAU)	Assistant Professor
Hosseiny, Seyed Aydin Raeis	(MECH, AAU)	PhD student
Hougaard, Peter		Elected member, PhD
Howard, Thomas J.	(MEK-K&P)	Associate Professor
Høgsberg, Jan Becker	(MEK-FAM)	Associate Professor
Ibsen, Lars Bo	(CIVIL, AAU)	Professor, PhD
Islam, Mohammad Aminul	(MEK-MPP)	Senior Researcher
Ivarsson, Anders	(MEK-TES)	Associate Professor
Jabbarinehnam, Mirmasoud	(MEK-MPP)	Researcher
Jacobsen, Christian Brix		Elected member, PhD.
Jakobsen, Christian S.		Elected member, R&D Engineer
Jakobsen, Johnny	(MECH, AAU)	Associate Professor
Jellesen, Morten Stendahl	(MEK-MTU)	Senior Researcher
Jensen, Erik Appel	(MECH, AAU)	Associate Professor
Jensen, Henrik Myhre	(ENG, AU)	Professor
Jensen, Jakob Søndergaard		Elected member, Professor, PhD
Jensen, Jonas Kjær	(MEK-TES)	Scientific Assistant
Jensen, Jørgen Juncher	(MEK-FVM)	Professor Emeritus, dr. techn.
Jensen, Lars Rosgaard	(MECH, AAU)	Associate Professor
Jensen, Lasse Skovgaard	(MEK-K&P)	PhD student
Jensen, Michael Vincent	(MEK-TES)	PhD student
Joshy, Salil	(MEK-MTU)	PhD student
Jurado, Antonio	(WIND)	PhD student

Juul, Kristian Jørgensen	(MEK-FAM)	PhD student
Juul, Nicolai Ytterdal	(MEK-MTU)	PhD student
Jönsson, Jeppe	(CIVIL)	Professor
Jørgensen, John Bagterp	(COMPUTE)	Associate Professor
Jørgensen, Mads Carsten	(MEK-TES)	PhD student
Jørgensen, Martin Heide	(MECH, AAU)	Associate Professor
Kappatos, Vasileios	(SDU-ITI)	Associate Professor
Karamehmedovic, Mirza	(COMPUTE)	Associate Professor
Karvounis, Nikkolas	(MEK-FVM)	PhD student
Kepler, Jørgen	(MECH, AAU)	Associate Professor
Kiefer, Janik	(WIND)	PhD student
Kim, Taesong	(WIND)	Associate Professor
Kirkegaard, Poul Henning	(ENG, AU)	Professor
Kjemtrup, Lars	(MEK-TES)	PhD student
Kliem, Mathias	(MEK-FAM)	PhD student
Klit, Peder	(MEK-FAM)	Professor, PhD
Knudsen, Kim	(COMPUTE)	Associate professor
Knudsen, Lars Ramkilde	(COMPUTE)	Professor
Knudsen, Thomas S.		Elected member, PhD.
Koss, Holger	(CIVIL)	Associate Professor
Krenk, Steen	(MEK-FAM)	Professor, dr.techn.
Kristensen, Anders Schmidt	(CIVIL, AAU)	Associate Professor
Kristiansen, Kristian Uldall	(COMPUTE)	Assistant Professor
Krogh, Christian	(MECH, AAU)	PhD student
Kærn, Martin Ryhl	(MEK-TES)	Researcher
La Seta, Angelo	(MEK-TES)	Scientific Assistant
Lambertsen, Søren Heide	(CIVIL, AAU)	Associate Professor
Lampert, Felix	(MEK-MTU)	PhD student
Larsen, Jan Balle		Elected member, PhD.
Larsen, Poul Scheel	(MEK-FVM)	Professor Emeritus, PhD
Larsen, Raino Mikael	(MECH, AAU)	Associate Professor
Lauridsen, Jonas	(MEK-FAM)	Postdoc
Ledet, Lasse Søggaard	(MECH, AAU)	PhD student
Lee, Seunghwan	(MEK-MTU)	Associate Professor
Legarth, Brian N.	(MEK-FAM)	Associate Professor, PhD
Lemvig, Jakob	(COMPUTE)	Associate Professor
Lenau, Torben Anker	(MEK-K&P)	Associate Professor
Li, Shizhao	(MEK-MPP)	AC-Tap
Lilholt, Hans	(WIND)	Chief Scientist
Limkilde, Asger	(COMPUTE)	PhD student
Lindgaard, Esben	(MECH, AAU)	Associate Professor
Lind-Nielsen, Birger		Elected member, PhD.
Luczak, Martin M.	(WIND)	Senior Researcher
Lund, Erik	(MECH, AAU)	Professor, PhD
Lund, Ivar	(SDU-ITI)	Associate Professor
Lundgaard, Christian	(MEK-FAM)	PhD student
Lynggaard, Julie	(MEK-FAM)	PhD student
Lythcke-Jørgensen, Christoffer	(MEK-TES)	PhD student
Løkkegaard, Martin	(MEK-K&P)	PhD student
Madruza, Danial González	(MEK-MPP)	Postdoc
Madsen, Per A.	(MEK-FVM)	Professor, dr.techn.
Madsen, Søren Peder	(ENG, AU)	Associate Professor
Maduro, Marco Aurelio Miranda	(WIND)	PhD student
Mahdi, Abkar	(ENG, AU)	Assistant Professor
Mahshid, Rasoul	(MEK-MPP)	PhD student
Malede, Yohanes Chekol	(MEK-MTU)	PhD student
Mancini, Roberta	(MEK-TES)	PhD student

Mandviwalla, Xerxes	(MEK-FVM)	PhD student
Manouchehr, Mehrtash	(MEK-FAM)	Scientific Assistant
Margalit, Jonatan	(MEK-FVM)	PhD student
Marhöfer, David Maximilian	(MEK-MPP)	PhD student
Markussen, Wiebke Brix	(MEK-TES)	Associate Professor
Markvorsen, Steen	(COMPUTE)	Professor, dr. techn., PhD
Marla, Deepak	(MEK-MPP)	Postdoc
Marti, Ignacio	(WIND)	Head of Section
Mazzucco, Andrea	(MEK-TES)	PhD student
McAloone, Tim C.	(MEK-K&P)	Associate Professor, PhD
Meroni, Andrea	(MEK-TES)	PhD student
Meyer, Knud Erik	(MEK-FVM)	Associate Professor, PhD
Mieritz, Andreas Falkenstrøm	(COMPUTE)	PhD student
Mikkelsen, Lars Pilgaard	(WIND)	Associate Professor
Mikkelsen, Robert Flemming	(WIND)	Senior Researcher
Mischkot, Michael	(MEK-MPP)	PhD student
Mishnaevsky, Leon	(WIND)	Senior Scientist, Dr. -ing.habil
Moghadam, Marcel	(MEK-MPP)	PhD student
Mohaghegh, Kamran	(MEK-MPP)	Postdoc
Mohammed, Ali	(MEK-MPP)	PhD student
Mohanty, Sankhya	(MEK-MPP)	Postdoc
Moncy, Aakash	(MEK-FAM)	PhD student
Montagud, Maria Engracia Mondejar	(MEK-TES)	Postdoc
Montgomery, Melanie	(MEK-MTU)	Senior Researcher
Morte, Michele della	(SDU-MAT)	Associate Professor
Mortensen, Niels Henrik	(MEK-K&P)	Professor, Head of Section
Mortensen, Ulrich Andreas	(WIND)	PhD student
Møller, Per	(MEK-MTU)	Professor
Møller, Randi Nøhr	(MEK-FAM)	PhD student
Nasirabadi, Parizad Shojaee	(MEK-MPP)	PhD student
Natarajan, Anand	(WIND)	Senior Researcher
Nguyen, Tuong-Van	(MEK-TES)	Postdoc
Nielsen, Anne Ryelund	(COMPUTE)	PhD student
Nielsen, Benjamin N.	(CIVIL, AAU)	Associate Professor
Nielsen, Chris Valentin	(MEK-MPP)	Associate Professor
Nielsen, Claus Suldrup	(MEK-TES)	Postdoc
Nielsen, Jens Henrik	(CIVIL)	Assistant Professor
Nielsen, Kamilla Haahr	(COMPUTE)	PhD student
Nielsen, Kim Lau	(MEK-FAM)	Associate Professor
Nielsen, Leif Otto	(CIVIL)	Associate Prof. Emeritus
Nielsen, Niels-Jørgen Rishøj		Elected member, PhD.
Nielsen, Søren Dam	(CIVIL, AAU)	Assistant Professor
Nielsen, Søren R.K.	(CIVIL, AAU)	Professor Emeritus, dr.techn.
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Nygaard, Jens Vinge	(ENG, AU)	Head of Mechanical Engineering
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Omidvarnia, Farzaneh	(MEK-MPP)	PhD student
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Pantleon, Wolfgang	(MEK-MTU)	Associate Professor
Pedersen, David Bue	(MEK-MPP)	Researcher
Pedersen, Lars	(CIVIL, AAU)	Associate Professor
Pedersen, Mikkel Melters	(ENG, AU)	Assistant Professor
Pedersen, Michael	(COMPUTE)	Professor, dr.techn.
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Pedersen, Pauli	(MEK-FAM)	Professor Emeritus, dr.techn., HD
Pedersen, Preben Terndrup	(MEK-FVM)	Professor Emeritus, PhD
Pedersen, Thomas Ørts		Elected member, PhD.
Peréz, Ignacio V.	(MEK-FAM)	PhD student
Petersen, Henrik Gordon		Elected member, Professor
Petersen, Thomas		Elected member, PhD
Petkov, Kiril	(MEK-MPP)	PhD student
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Pieper, Henrik	(MEK-TES)	PhD student
Pierobon, Leonardo	(MEK-TES)	Postdoc
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Poulios, Konstantinos	(MEK-FAM)	Researcher
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Puthumana, Govindan	(MEK-MPP)	Postdoc
Pyrz, Ryszard	(MECH, AAU)	Professor Emeritus
Quagliotti, Danilo	(MEK-MPP)	PhD student
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Rasmussen, John	(MECH, AAU)	Professor
Rauhe, Jens Christian M	(MECH, AAU)	Associate Professor
Ravendran, Rathesan	(MECH, AAU)	PhD student
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Ravn-Jensen, Kim		Elected members, PhD.
Read, Robert	(MEK-FVM)	Senior Researcher
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Redanz, Pia		Elected member, Senior Engineer
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Regi, Francesco	(MEK-MPP)	PhD student
Rezaei, Mohsen	(MEK-FAM)	Researcher
Richelsen, Ann Bettina	(MEK-FAM)	Professor, PhD
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Rosbjerg, Dan		Elected members, Professor, dr.techn.
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Ruhoff, Peder Thusgaard	(SDU-ITI)	Head of department, Professor
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Schmiegel, Jürgen	(ENG, AU)	Associate Professor
Schramm, Jesper	(MEK-TES)	Professor MSO
Schroll, Achim	(SDU-MAT)	Professor, dr.sc. Math.
Shao, Yanlin	(MEK-FVM)	Assistant Professor
Shen, Wen Zhong	(WIND)	Professor
Sigmund, Ole	(MEK-FAM)	Professor, dr.techn.
Sigurjonsson, Hafthor Ægir	(MEK-TES)	Postdoc
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Sonne, Mads Rostgaard	(MEK-MPP)	Researcher
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Spietz, Henrik Juul	(MEK-FVM)	PhD student
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Sørensen, Jens Nørkær	(WIND)	Professor
Sørensen, John Dalsgaard	(CIVIL, AAU)	Professor, PhD
Sørensen, Mads Peter	(COMPUTE)	Professor MSO
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Thoft-Christensen, Palle	(CIVIL, AAU)	Professor Emeritus, PhD
Thorborg, Jesper	(MEK-MPP)	Senior Researcher
Thöns, Sebastian	(CIVIL)	Associate Professor
Tidemann, Lasse	(MEK-FAM)	PhD student
Tiedje, Niels Skat	(MEK-MPP)	Associate Professor, PhD
Toftegaard, Helmuth L.	(WIND)	Senior Scientist
Toftekær, Johan Frederik	(MEK-FAM)	PhD student
Tosello, Guido	(MEK-MPP)	Associate Professor
Tvergaard, Viggo	(MEK-FAM)	Professor Emeritus, dr.techn.
Ulriksen, Martin Dalgaard	(CIVIL, AAU)	PhD student
Vedel-Smith, Nikolaj Kjelgaard	(MEK-MPP)	Postdoc
Vested, Malene Hovgaard	(MEK-FVM)	PhD student
Velte, Clara	(MEK-FVM)	Associate Professor
Verbart, Alexander	(WIND)	Researcher
Verdingovas, Vadimas	(MEK-MTU)	Postdoc
Villa, Matteo	(MEK-MTU)	Postdoc
Villadsen, Sebastian	(MEK-MTU)	PhD student
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Wang, Fengwen	(MEK-FAM)	Senior Researcher
Warm, Christian	(MEK-MTU)	PhD student

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Westlye, Frederik Ree	(MEK-TES)	PhD student
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Winther, Grethe	(MEK-MTU)	Associate Professor, dr.techn.
Wu, Duoli	(MEK-MTU)	PhD student
Wöhner, Timo	(MEK-MPP)	PhD student
Yadav, Abhijeet	(MEK-MTU)	Research Assistant
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Zhang, Xuping	(ENG, AU)	Associate Professor
Zhang, Yang	(MEK-MPP)	Senior Researcher
Zhang, Zili	(ENG, AU)	Assistant Professor
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