Ole Sigmund - DTU Orbit (04/12/2017)
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Publications:

A “poor man's approach” to topology optimization of cooling channels based on a Darcy flow model
Publication: Research - peer-review › Journal article – Annual report year: 2018

A short numerical study on the optimization methods influence on topology optimization
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Combined shape and topology optimization for minimization of maximal von Mises stress
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Comparison of Five Computational Methods for Computing Q Factors in Photonic Crystal Membrane Cavities
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Comparison of Five Numerical Methods for Computing Quality Factors and Resonance Wavelengths in Photonic Crystal Membrane Cavities
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Alexandersen, J., Sigmund, O., Andreasen, C. S. & Aage, N.
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Project: PhD

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Optimal design of porous materials
Andreassen, E., Jensen, J. S., Sigmund, O., Thomsen, J. J., Høgsberg, J. B., Guedes, J. A. P. L. M. & Lund, E.
01/09/2011 → 19/03/2015
Project: PhD
Topology Optimisation for Convection Problems
Alexandersen, J. & Sigmund, O.
30/08/2010 → 30/09/2011
Project

Energy Harvesting for Photocatalysis
Hansen, L. C., Mortensen, N. A., Mørk, J. & Sigmund, O.
01/10/2009 → 31/03/2010
Project: PhD

Systematic design of nano-photonic systems
Wang, F., Jensen, J. S., Mørk, J., Sigmund, O., Pedersen, N. L., Qiu, M. & Tortorelli, D. A.
01/09/2009 → 20/12/2012
Project: PhD

Optimization of Metamaterials
Andkjær, J. A., Sigmund, O., Breinbjerg, O., Mortensen, N. A., Lavrinenko, A., Bozhevolnyi, S. I. & Leugering, G.
01/02/2009 → 02/09/2012
Project: PhD

Wireless Communication for Hearing Aid Systems
Nour, B., Breinbjerg, O., Mortensen, N. A., Sigmund, O., Meincke, P., Kabacik, P. & Nosich, A. I.
01/12/2008 → 20/09/2012
Project: PhD

Nanophotonics for terabit communications : VKR centre of excellence - NATEC
01/09/2008 → 31/08/2014
Project

Topology Optimization of Transient Optoelastic Wave-interaction Problems
Matzen, R., Sigmund, O., Jensen, J. S., Mørk, J., Diaz, A. R. & Kawamoto, A.
01/04/2008 → 31/08/2011
Project: PhD

Multiscale Optimization of Materials Subjected to Impact Loading
Andreasen, C. S., Sigmund, O., Jensen, J. S., Klarbring, A. & Rodrigues, H. C.
01/03/2008 → 28/09/2011
Project: PhD

Antenna Miniaturization in Complex Environments
Zhang, J., Breinbjerg, O., Mortensen, N. A., Sigmund, O., Meincke, P., Vázquez, M. M. & Ziolkowski, R. W.
01/01/2008 → 28/09/2011
Project: PhD

Systematic Design of Miniaturized Devices for Energy Transfer
Aage, N., Sigmund, O., Breinbjerg, O., Mortensen, N. A., Stolpe, M., Diaz, A. R. & Kawamoto, A.
01/01/2008 → 31/08/2011
Project: PhD

Topology Optimization for Crashworthiness Design Using Approximate Procedures
Amir, O., Stolpe, M., Sigmund, O., Evgrafov, A., Klarbring, A. & Lund, E.
15/09/2007 → 30/03/2011
Project: PhD
Automated Design of Advanced Mechatronic Systems
Dupuis, J., Fan, Z., Goodman, E., Sigmund, O., Blanke, M., Jin, Y. & Zhang, Q.
15/05/2007 → 11/05/2011
Project: PhD

Design of metamaterials
Bendsøe, M. P., Sigmund, O. & Diaz, A. R.
01/05/2007 → 31/12/2007
Project

Silicon-based Nanophotonic Structures for Controlling Light
Yang, L., Hvam, J. M., Lavrinenko, A., Sigmund, O., Melloni, A. & Willatzen, M.
01/11/2006 → 20/04/2011
Project: PhD

Microtools for Automated Nanomanipulation
Sardan Sukas, Ö., Bøggild, P., Melhove, K., Sigmund, O., Jensen, J. S., Nelson, B. J. & Staufer, U.
15/10/2006 → 03/03/2010
Project: PhD

Tool Optimization for Welding Processes
Larsen, A. A., Stolpe, M., Hattel, J. H., Sigmund, O., Lindgren, L., Duysinx, P. & Lund, E.
15/06/2006 → 10/02/2010
Project: PhD

Topology Optimization of Surface Acoustic Wave Devises
Dühring, M. B., Sigmund, O., Jensen, J. S., Hansen, O., Maute, K. & Willatzen, M.
01/02/2006 → 21/10/2009
Project: PhD

Topology Optimization Problems with Design-Dependent Sets of Constraints
Schou, M. H., Stolpe, M., Evgrafov, A., Sigmund, O., Jørgensen, J. B., Kocvara, M. & Svanberg, K.
01/01/2006 → 30/06/2010
Project: PhD

Generation of Articulated Mechanisms by Optimization Techniques - Matrix Inequalities and Global Search
Kawamoto, A., Bendsøe, M. P., Sigmund, O., Klit, P., Eberhard, P. & Klarbring, A.
18/03/2005 → 18/03/2005
Project: PhD

Topographic optimization of photonic crystals and application to ultra-small and ultra-fast optical signal processing devices
Asakawa, K., Sugimoto, Y., Watanabe, Y., Nakamura, S., Ishikawa, H., Awazu, K., Watanabe, A., Kristensen, M., Borel, P. I., Sigmund, O. & Baets, R.
01/10/2004 → 30/09/2006
Project

Topologioptimering af strømninger under multifysisk belastning
01/02/2004 → 31/05/2007
Project: PhD

Topological design optimization of structures, machines and materials : IUTAM-SYMPOSIUM
Bendsøe, M. P., Sigmund, O. & Othoff, N.
01/01/2004 → 31/12/2005
Project
Investigation of Nano-resonators for Mass Detection
Dohn, S., Boisen, A., Hansen, O., Sigmund, O., Bouwstra, S. & Lægsgaard, E.
01/09/2003 → 30/03/2007
Project: PhD

Fonon
Sigmund, O. & Tvergaard, V.
01/01/2003 → 31/12/2005
Project

Smart indpakning af fiber lasere
Voxen, L. H., Sigmund, O., Pedersen, J. E., Poulsen, C., Thomsen, J. J., Santos, I., Hald, J. & Tinnsten, M.
01/12/2001 → 18/05/2005
Project: PhD

Nanoresonators for high resolution mass detection
Davis, Z. J., Boisen, A., Hansen, O., Sigmund, O., Brand, O. & Brugger, J.
01/02/2000 → 30/06/2003
Project: PhD

Topology optimization of non-linear compliant systems
Buhl, T., Pedersen, P., Sigmund, O., Olhoff, N., Bestle, D. & Bletzinger, K.
01/09/1999 → 18/02/2003
Project: PhD

Topology Optimization of Non-linear Structures
01/07/1999 → 18/11/2002
Project: PhD

Material Interpolation Schemes in Topology Design
Bendsøe, M. P. & Sigmund, O.
01/02/1999 → 31/12/2000
Project

Fabrication, characterization and implementation of cantilevers for biochemical sensing
Thaysen, J., Boisen, A., Bouwstra, S., Grey, F., Frans de Rooij, N., Brugger, J. & Sigmund, O.
01/01/1999 → 16/11/2001
Project: PhD

Improving the buckling performance of topology designed periodic microstructures
Bendsøe, M. P., Sigmund, O. & Neves, M.
01/01/1999 → 31/12/2000
Project

Development of interconnect substrates in silicon with flexible regions for multichip microsystems
Lisby, T., Hansen, O., Branebjerg, J., Sigmund, O., Dyrbey, K. & Schweitz, J.
01/10/1998 → ...
Project: PhD

Multi-scale Representations in Design Optimization
Poulsen, T. A., Sigmund, O., Bendsøe, M. P., Pedersen, P., Lund, E., Petersson, J. & Soto, C. A.
01/09/1998 → 12/07/2002
Project: PhD
**Optimal topology design of dissipative structures**
Bendsøe, M. P., Sigmund, O., Pedersen, C. B. W. & Taylor, J.
01/08/1998 → ...
Project

**CMOS kompatible multilag metalliske mikrostrukturer for intelligente transducere**
Ravnkilde, J. T., Hansen, O., Sigmund, O., Gravesen, P. & Wagner, B.
01/03/1997 → 21/06/2001
Project: PhD

**Teknologidvikling for mikroakruatorer**
Jonsmann, J., Bouwstra, S., Sigmund, O. & Sparsø, J.
01/07/1996 → 17/07/2000
Project: PhD

**Topology Optimization - Methods, Convergence and Adaptive Finite Elements**
Petersson, J., Bendsøe, M. P. & Sigmund, O.
01/03/1996 → 28/02/1997
Project

**Optimal Design and manufacturing of composite materials**
Sigmund, O. & Torquato, S.
01/09/1995 → ...
Project

**Design and Manufacturing of MicroElectroMechanical Systems (MEMS)**
Sigmund, O., Pedersen, N. L. & Tchemiak, D.
01/06/1994 → ...
Project

**Numerical problems in topology optimization**
Sigmund, O., Petersson, J. & Bourdin, B.
01/01/1993 → ...
Project

**Optimal design af adaptive konstruktioner**
Sigmund, O., Pedersen, P. & Bendsee, M. P.
09/12/1992 → 20/03/1995
Project: PhD

**Activities:**

**International Workshop on Optical Waveguide Theory and Numerical Modelling (OWTNM); 19**
Sigmund, O. (Speaker)
9 Apr 2010 → 10 Apr 2010
Activity: Talks and presentations › Conference presentations

**Comsol Conference 2008**
Sigmund, O. (Participant)
4 Nov 2008 → 6 Nov 2008
Activity: Attending an event › Participating in or organising a conference

**ASME 2008 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference**
Sigmund, O. (Participant)
Activity: Attending an event › Participating in or organising a conference

2008 MRS Spring Meeting & Exhibit
Sigmund, O. (Participant)
Activity: Attending an event › Participating in or organising a conference