

## Teaching portfolio

### 1. Teaching CV: A list of any lecturing and supervision tasks, including specification of academic fields, scope, level (bachelor, master, continuing education, PhD) as well as any external examiner tasks.

#### Lecture courses:

Since my employment at Aalborg University in 2005 and until 2012 I have been giving ~2 courses per semester, e.g.: Electromagnetics, Optics, Computer modeling II, Nano Optics, optoelectronics, statistical mechanics, quantum mechanics, as well as supervised various student projects (usually 2-4 per semester). A more detailed account of the teaching activities starting from 2013 is given below.

Spring 2013: Nanostructures and Materials, Nano Optics  
Autumn 2013: Optoelectronics, Mechanics, Statistical Mechanics  
Spring 2014: Nanostructures and Materials, Nano Optics, Basic Quantum Mechanics  
Autumn 2014: Optoelectronics, Mechanics, Statistical Mechanics  
Spring 2015: Nanostructures and Materials, Nano Optics, Basic Quantum Mechanics  
Autumn 2015: Optoelectronics, Mechanics, Statistical mechanics  
Spring 2016: Nanostructures and Materials, Nano Optics, Basic Quantum Mechanics  
Autumn 2016: Optoelectronics, Mechanics, Statistical mechanics  
Spring 2017: Nanostructures and Materials, Nano Optics, Basic Quantum Mechanics

#### Project supervision:

Spring 2013: 1 FYS6-project, 1 FYS8-project  
Spring 2014: 1 FYS4-project, 1 M.Sc. project  
Autumn 2013: 2 NANO3-project, 1 FYS4-project  
Autumn 2014: 2 NANO3-projects, 1 FYS7-project, 1 FYS3-project  
Spring 2015: 1 FYS8-project, 1 FYS4-project, 1 FYS6 / NANO6-project  
Autumn 2015: 2 FYS3-projects, 1 FYS7-project, 1 NANO3-project  
Spring 2016: 1 FYS4-project, 2 FYS6-projects, 1 FYS10-project  
Autumn 2016: 1 NANO3-project, 2 FYS7-projects  
Spring 2017: 1 FYS4-project, 1 FYS6-project, 4 FYS8-projects

#### Ph.D supervision:

Jesper Jung (Finished 2009)  
Thøger Kari (Finished 2010)  
Yao-Chung Tsao (Finished 2015)  
Enok J. Skjølstrup (Started January 2017)

In addition co-supervision or co-operation with

J. Gadegaard  
P. Simesen  
Ulrich Ulrichsen

#### External examiner tasks:

#### Project exams:

Bachelor thesis, T. Christensen and J. R. de Lasson, at DTU 2010  
M. Sc. thesis, A. Belekin, DTU 2011  
Sebastian K. H. Andersen, M.Sc. thesis, SDU 2014.  
A. D. Østerkryger, M.Sc. thesis, DTU 2015  
Jens L. Laursen, M.Sc. thesis, SDU 2015  
2 M.Sc.thesis'es, Jógvan Kjølbro, Erik Stassen, DTU Jan. 2016  
M. Sc. thesis, Deanna V. Hampen, AU, Jan. 2016  
Part-A exam, Harish Lakhotiya, AU, Oct. 2016  
Part-A exam, Emil Haldrup Eriksen, AU, Jan. 2017  
Bachelor thesis, Eduards Keisters, SDU, Jan. 2017

#### Ph.D examiner:

Yuntian Chen, DTU 2010  
Aliaksandra. Ivinskaya, DTU 2011  
Jakob R. De Lasson, DTU 2015  
Andrea Fasano, DTU 2017

Course exams:

2013:

"Mekanik og bølger", oral exam at Aarhus University.  
"Statistical mechanics", written exam at Aarhus University.

2014:

"Mekanik og bølger", oral exam at Aarhus University.  
"Statistical mechanics", written exam at Aarhus University.

2015:

"Mekanik og bølger", oral exam at Aarhus University  
"Statistical mechanics", written exam at Aarhus University  
"Photonic Integrated Circuits", oral exam at Aarhus University  
"Nanophotonics 34051", DTU  
"FY503, Elektromagnetisme I", SDU

2016:

"Optics and Quantum Electronics", oral exam at AU, Nov. 2016  
"Fiber optics and communications", oral exam at AU, Jan. 2016  
"Bølger og optik", oral exam and re-exam at AU, June and Aug. 2016  
"Mathematical modeling and thermodynamics", ordinary and re-exam, June and Aug. 2016  
"Statistical mechanics", written re-exam and ordinary exam at AU, Jan. and Nov. 2017  
"Elektromagnetisme II", written exam at SDU, March 2016  
"Elektromagnetisme I", written exam and re-exam at SDU, June and Aug. 2016  
"Nanophotonics 34051", DTU, oral exam and re-exam, May and Aug. 2016

2017:

"Optics and Quantum Electronics", oral re-exam at AU, Jan. 2017  
"Statistical mechanics", written re-exam at AU, Jan. 2017  
"Nanophotonics 34051", DTU, May 2017

Internal Ph.D examiner at AAU:

Christian Fisker 2010  
Mads L. Trolle 2014  
Morten Hygum 2015

## **2. Study administration: A list of any study administration tasks, e.g. study board membership, head of studies or semester or course coordinator, accreditation, etc.**

Semester coordinator:

Spring 2014: FYS6 and NANO6  
Autumn 2014: FYS7 and NANO5  
Spring 2015: FYS6 and NANO6  
Autumn 2015: FYS7 and NANO5  
Spring 2016: FYS6 and NANO6  
Autumn 2016: FYS7 and NANO5  
Spring 2017: FYS6 and NANO6

## **3. University pedagogy qualifications: A list of any completed courses in university pedagogy, PBL courses, workshops, academic development projects, collegial guidance and supervision, etc.**

Participation in a course held at AAU on supervision of Ph. D students.

## **4. Other qualifications: Conference attendance, editorials, presentations, etc. relating to education, 'University Teaching Day', etc.**

Type your answer here...

## **5. Teaching activity development and teaching materials: A list of any contributions to the development of new modules, teaching materials, study programmes, e-learning, collaboration with external business partners, etc.**

A. V. Lavrinenko, J. Lægsgaard, N. Gregersen, F. Schmidt, and T. Søndergaard, "Numerical methods in photonics", CRC press, Boca Raton 2015.

- This book is now used for teaching at DTU in a lecture course, and here at AAU it is used for student projects (added end 2015).

## **6. Teaching awards you may have received or been nominated for.**

Type your answer here...

## **7. Personal reflections and initiatives: Here you may state any personal deliberations as regards teaching and supervision, any wishes and plans for further pedagogic development, plans for following up on feedback/evaluations from students, etc.**

Type your answer here...

## **8. Any other information or comments.**

Type your answer here...