



**DOPS Annual Conference 2016**  
**Oticonsalen, DTU Lyngby Campus**  
 24. and 25. November 2016

**Thursday, November 24, 2016**

**Registration, coffee and bread** ..... 8:45 – 9:30

**Technical Session I** ..... 9:30 – 10:40

---

**Chair:**

*Kristian Lungaard Jensen, DTU Fotonik*

**Near-field investigation of nanophotonic structures (Invited)**

*Vladimir A. Zenin, Centre for Nano Optics, University of Southern Denmark*..... 9:30 – 9:55

**Focus-Tunable Lenses Enable 3-D Microscopy**

*David Leuenberger, Fabian F. Voigt, Optotune AG, University of Zurich*..... 9:55 – 10:10

**Organic photovoltaics**

*Morten Madsen, University of Southern Denmark*..... 10:10 – 10:25

**Simultaneous acquisition of stimulated Raman gain spectra in orthogonal polarizations**

*Hugo Kerdoncuff, Mark Pollard, Philip G. Westergaard, Jan C. Petersen, and*

*Mikael Lassen, Danish Fundamental Metrology* ..... 10:25 – 10:40

**Break and exhibition**..... 10:40 – 11:05

---

## Technical Session II

11:05 – 12:10

### Chair:

*Kasper Paasch, University of Southern Denmark*

### Photonic integrated circuits: a new eco-system, a new paradigm (Invited)

*Martijn Heck, Aarhus University..... 11:05 – 11:30*

### Nanowire quantum dots tuned to atomic resonances

*L. Leandro, C. P. Pedersen, I. Shtromb, K. Jöns, V. Zwillerc, G. Cirlinb and N. Akopiana, DTU Photonics, St. Petersburg Academic University, Kavli Institute of Nanoscience, Department of Applied Physics..... 11:30 – 11:45*

### 3D imaging with a liquid lens (Invited)

*Michael Linde Jakobsen, Mathias Bøgh Stokholm, Steen Gruner Hanson, Rasmus Kjær, Thomas Allin, Technical University of Denmark, Department of Photonics Engineering..... 11:45 – 12:10*

**Lunch and exhibition**..... 12:10 – 13:00

**Product Presentations,** 13:00 – 14.15

### Chair: Finn Mengel, Mengel Engineering

*Thorlabs AB, Hamamatsu, Laser 2000, ACAL BFI, Cobolt, Optonyx, Von Gegerfeldt, Ara Scientific, Nanor, Kimmy Photonics, Coherent Europe, NKT Photonics, Eclipse Optics, Azpect Photonics*

**Break and exhibition** ..... 14:15 – 14:35

## Technical Session III

14:35 – 15:45

### Chair:

*Lasse Høgstvedt, IRSee Aps*

### MAX IV: World's best x-ray microscope (Invited)

*Henning Friis Poulsen, Technical University of Denmark, Department of Physics..... 14:35 – 15:15*

### Looking at CO<sub>2</sub> through up-conversion based mid-IR camera

*A. Barh, P. Tidemand-Lichtenberg, and C. Pedersen. Technical University of Denmark, Department of Photonics Engineering ..... 15:15 – 15:30*

### Quartz Enhanced Photoacoustic Spectroscopy for Trace Gas Sensing

*M. Lassen, L. Lamard, A. Peremans, and J. C. Petersen, Danish Fundamental Metrology ..... 15:30– 15:45*

**Lab tour to the new laboratories of DTU Fotonik**..... 15:45 – 17:00

**Posters, exhibition, snacks & beer** ..... 17:00 – 18:15

**Dinner** ..... 18:15 – 19:30

**After-dinner-lecture: Danish space missions** ..... 19:30 – 20:30

*Michael Linden-Vörnle, DTU Space*

# Friday, November 25, 2016

**Registration, coffee and bread** ..... 8:15 – 9:00

**Technical Session IV** ..... 9:00 – 10:35

---

---

**Chair:**

*Ole Bjarlin Jensen, DTU Fotonik*

**Medical applications of UV and visible solid state lighting (Invited)**

*Paul Michael Petersen, Technical University of Denmark, Department of Photonics Engineering* ..... 9:00 – 9:25

**Achieving Quantum Security with Continuous Variable States of Light**

*Christian Scheffmann Jacobsen, Technical University of Denmark, Department of Physics* ..... 9:25 – 9:40

**Determining the internal quantum efficiency of shallow-implanted nitrogen-vacancy defects in bulk diamond**

*Ilya P. Radko, Mads Boll, Ulrik L. Andersen, and Alexander Huck, Technical University of Denmark, Department of Physics* ..... 9:40 – 9:55

**Sorting of black plastic using upconversion based spectroscopy**

*Lasse Høgstedt, Jeppe Seidelin Dam, Peter Tidemand-Lichtenberg, Christian Pedersen, IRSee Aps, DTU Fotonik* ..... 9:55 – 10:10

**Applications of a Free Space Laser Diode Module for Infrastructure Monitoring (Invited)**

*J. Nørregaard and A. E. Munkhaus, Pantinspect AS,* ..... 10:10 – 10:35

**Break and exhibition** ..... 10:35 – 11:00

**Technical Session V** ..... 11:00 – 12:05

---

---

**Chair:**

*Anders Clausen, DTU Fotonik*

**Optical navigation in space (Invited)**

*John Leif Jørgensen, DTU Space* ..... 11:00 – 11:25

**Industrial NIL fabrication of optical components (Invited)**

*Lars R. Lindvold, Leif Yde and Jan F. Stensborg, Stensborg A/S* ..... 11:25 – 11:50

## Linear and Nonlinear Characterization of a Slot Waveguide Based on Silicon-Rich Materials

Xiaowei Guan, Xiaoyan Wang and Lars H. Frandsen, DTU Fotonik..... 11:50 – 12:05

Lunch and exhibition ..... 12:05 – 13:00

Technical Session VI 13:00 – 14:00

---

---

### Chair:

Thomas Søndergaard, Aalborg University, Department of Physics and Nanotechnology

### Quantum cryptography (Invited)

Peter Lodahl, University of Copenhagen, Niels Bohr Institute ..... 13:00 – 13:30

### Breaking the Optical Transmission Barrier

Hao Hu, Technical University of Denmark, Department of Photonics Engineering ..... 13:30 – 13:45

### Optical transfer standards for gas amount fraction measurements – Challenges and Progress

David Balslev-Harder Danish Fundamental Metrology ..... 13:45 – 14:00

Presentation of DOPS Junior Prize and Best Poster Award ..... 14:00 – 14:10

DOPS General Assembly 14:15 – 15:30

---

---

## Dagsorden for DOPS generalforsamling 2016

1. Valg af dirigent og referent.
2. Formandens beretning.
3. Valg. Bestyrelsen modtager gerne forslag til nye medlemmer af bestyrelsen og suppleanter.
  - a. Valg af formand. Kristian Lundgaard Jensen er på valg og modtager genvalg.
  - b. Valg af bestyrelsesmedlemmer.
  - c. På valg er: Lasse Høgstedt, Ole Bjarlin Jensen og Martin Kristensen. Alle modtager genvalg.
  - d. Ikke på valg er: Kasper Paasch, Thomas Søndergaard og Anders Clausen.
  - e. Valg af bestyrelsessuppleanter. Bestyrelsen foreslår genvalg af Mette Marie Johansen og Finn Mengel.
  - f. Valg af revisor.
4. Økonomi
  - a. Kassererens beretning.
  - b. Godkendelse af regnskab for 2015.
  - c. Godkendelse af budget for 2016/2017.
5. Diskussion af DOPS berettigelse.
  - a. DOPS oplever svingende tilslutning til arrangementer, bestyrelsesarbejde og generalforsamling.
  - b. Skal DOPS målgruppe omdefineres?
  - c. Er DOPS relevant nu i forhold til tidspunktet for oprettelsen af DOPS og hvad er relevansen af DOPS i forhold til optik- og fotonikmiljøet i Danmark?
  - d. Er DOPS et reelt supplement/alternativ til de mange internationale tilbud (f.eks. OSA, SPIE)
  - e. Skal DOPS formålsparagraf ændres?
  - f. Hvad skal DOPS primære aktiviteter være (f.eks. nyhedsbreve, årsmøde, temamøder, studenterarrangementer, hjemmeside, ...)
6. Indkomne forslag
7. Evaluering af årsmøde 2016 og fastlæggelse af dato for årsmøde i 2017.
8. Eventuelt