

1. Curriculum Vitae of the proposed center leader

Personal details

Title and name: Dr. Ulrik Lund Andersen Date and nationality: July 30, 1972, Danish

Education

2003 PhD in Applied Physics, DTU
1999 MSc in Applied Physics, Technical University of Denmark (DTU)

Professional Career

04/16 – Scientific Director of Quantum Innovation Center (Qubiz)
01/12 – Head of section *Quantum Physics and Information Technology*, DTU Physics
01/12 – Full Professor, Department of Physics, DTU
01/11 – 01/15 Guest professor, SAOT Erlangen graduate school in advanced optical technologies.
07/06 – Guest professor, Max-Planck Institute for the Science of Light, Erlangen, Germany
07/06 – 01/12 Group leader, *Quantum Information group*, DTU Physics
07/06 – 12/11 Associate professor, DTU Physics
08/03 – 07/10 Group leader *Quantum information group*, Universität Erlangen and Max-Planck Research group
04/03 – 08/03 Postdoctoral fellow, Universität Erlangen, Germany

Some major managerial activities

- Director of virtual center on quantum technology at DTU; Quantum DTU.
- Scientific directors of Quantum Innovation Center (Qubiz).
- Head of the section on “Quantum Physics and Information Technology”, DTU-Physics.
- Head of strategic research program on Quantum magnetometry; DTU Physics, DTU Electro, Ulm Uni, Leipzig Uni and Uni-sensor A/S (2014-2017).
- Head of graduate school on Quantum and Nonlinear Optics (2008-2012).
- Head of Large Villum grant “Quantum plasmonics” (2008-2012) DTU Fysik and Fotonik and NBI.

Awards

- Sapere Aude award – Top Researcher (2015)
- **Eliteforsk award from the ministry of science (2013).**
- Sapere Aude award – Scientific Leader (2011).
- Sapere Aude award – Young Researcher (2008).
- DOPS prize of the Danish Optical Society (2005).
- Alexander von Humboldt fellowship for research at Universität Erlangen, (2003).

Project grants (as PI) (Total of 14.8MEuro)

Danish Research Council

- 2016, Quantech, Infrastructure grant, 0.5MEuro
- 2015-2019, FNU, *DIMS – Quantum control of light with diamond in a plasmonic nanocircuit*, 1.7MEuro
- 2015 Bilateral Network grant with Harvard University, 27k Euro
- 2010-2013, FTP, *Quantum sensing*, 1.2M Euro
- 2010-2013, FNU, *Generation of Schrödinger Cat states for QIT*, 733k Euro
- 2008, FNU, *Coupled diamond-plasmon system*, 133k Euro
- 2007-2010, FTP, *Continuous variable quantum error correction coding*, 360k Euro
- 2007-2010, Grad. school on *Quant. and Nonlinear Optics* and two PhD stipends, 560k Euro

Innovation Foundation Denmark

- 2016-2018, *QUBIZ – Quantum Innovation Center*, (~2MEuro for DTU Physics)
- 2014-2017, *EXMAD - Extreme sensitive magnetometry using diamond*, 1.6M Euro

Lundbeck Foundation

- 2016-2017, *QuantumLab – hands-on formidling af moderne kvanteteknologi*, 150k Euro
- 2011-2015, *Quantum control of a mechanical system with non-classical light*, 347k Euro
- 2007-2010, *Experimental quantum feedback control of light*, 227k Euro

Villum Fonden

- 2016-2019 Quantum control of mechanical oscillators, 1MEuro
- 2008-2013 *Controlling photons with plasmons*, 1.33M Euro

STREP EU, 2008-2011, *Computing with mesoscopic photonic and atomic states*, 200k Euro

DTU

- QuantumLab, 1Mkr
- 9 PhD stipends, 1.7MEuro

Teaching and supervision

- Main advisor for 21 PhD students (currently 8 PhD)
- Mentored 18 postdocs since 2008. Three have won a Sapere Aude grant, four received a DTU-Ørsted fellowship and one was awarded a Villum investigator grant.
- Extensive teaching experience at both undergraduate and graduate level

Organization of International Workshops and Summer schools

- 24th Central European Workshop on Quantum Optics ([CEWQO'2017](#)), DTU, Lyngby, June (2017)
- International seminar on “[Quantum Limited Metrology and Sensing](#)” Bad Honnef, Germany, February 6-9 (2016).
- 2nd international workshop on “[Trustworthy Quantum Information](#)”, Shanghai, China, June 27-31 2016
- International seminar on “[Macroscopic Quantum Entanglement](#)” Bad Honnef, Germany, 18-22 January 2016.
- International PhD Summer schools on Quantum and Nonlinear optics (QNLO'2008; August, Hven, Sweden; QNLO'2010, August, Sandberg Castle, Sønderborg, DK; [QNLO'2012](#), August, Sandberg Castle, Sønderborg, DK; [QNLO'2015](#), June, Sørup Herregaard, Ringsted, DK).
- 1st, 2nd International Workshop on Macroscopic Quantum Coherence ([MQC'2014](#)), DTU, Lyngby, May (2014) and ([MQC'2015](#)), St. Andrews University of St. Andrews, Scotland, June (2015).
- The 9th International workshop on Continuous Variable Quantum Information Processing ([CVQIP'2010](#)), Frederiksdals hotel, Lyngby, Denmark, May 2012

Miscellaneous

- Evaluator of more than 10 foundations (e.g. Australian Research Council (ARC); Keck foundation (USA); Knut and Alice Wallenberg Foundation (Sweden))
- Editor of journal on “Quantum Measurements and Quantum metrology”, Versita
- Peer reviewer for several high ranked international journals, i.e. Science and Nature