PhD fellow in Quantum Photonics  
Niels Bohr Institute  
Faculty of Science  
University of Copenhagen  

At the Niels Bohr Institute, Faculty of Science at University of Copenhagen we are currently offering a fully financed PhD scholarship in experimental quantum photonics commencing on November 1st, 2017 or as soon as possible thereafter.

**Description of the Scientific Environment**

The PhD projects will be embedded in the Quantum Photonics Group (www.quantum-photonics.dk). We carry out fundamental and applied research on solid-state quantum-information processing with quantum dots embedded in photonic nanostructures. The basic quest of the current research programme is to scale the basic quantum functionalities to obtain large and complex quantum networks. The research span of the group covers the full range from fabrication and design of complex photonic nanostructures, through ingenious optical experiments, to detailed numerical modeling and fundamental theory.

**Project description**

The current vacancy will be focused on the generation of photonic cluster states by employing a single spin trapped in a quantum dot, which is embedded in a nanophotonic waveguide. The project will be predominantly experimental, but theoretical feasibility studies of
various protocols will need to be worked out as well.

**Supervisors:** Assistant Prof. Tim Schröder and Prof. Peter Lodahl,
Niels Bohr Institute, lodahl@nbi.ku.dk, phone: +45 35325303.

**Job description**

The position is available for a 3-year period and your key tasks as a PhD student at Science are:

- To manage and carry through your research project
- Attend PhD courses
- Write scientific articles and your PhD thesis
- Teach and disseminate your research
- To stay at an external research institution for a few months, preferably abroad
- Work for the department

**Formal requirements**

Applicants should have an MSc degree in physics or engineering with good results and good English skills. As criteria for the assessment of your qualifications emphasis will also be laid on previous publications (if any) and relevant work experience.

**Terms of employment**

The position is covered by the Memorandum on Job Structure for Academic Staff.

Terms of appointment and payment accord to the agreement between the Ministry of Finance and The Danish Confederation of

**Ansøg dette job**

Find stillingen online og send din ansøgning og CV

[careers@graduateland.com](mailto:careers@graduateland.com)  [https://karriere.ku.dk/da/j/528PS](https://karriere.ku.dk/da/j/528PS)
Professional Associations on Academics in the State.
The starting salary is currently at a minimum DKK 306,667
including annual supplement (+ pension up to DKK 42,361).
Negotiation for salary supplement is possible.

Application Procedure

The application, in English, must be submitted electronically by
clicking APPLY NOW below.

Please include

- Cover Letter, detailing your motivation and background for
  applying for the specific PhD project.
- CV
- Diploma and transcripts of records (BSc and MSc)
- Acceptance Letter for the relevant MSc Programme at
  SCIENCES, if any
- Other information for consideration, e.g. list of publications
  (if any),
- Full contact details (Name, address, telephone & email) of 1-3
  professional referees

The University wishes our staff to reflect the diversity of society and
thus welcomes applications from all qualified candidates regardless
of personal background.

The deadline for applications is October 3th, 2017. Applications
received later than this date will not be considered.
After the expiry of the deadline for applications, the authorized recruitment manager selects applicants for assessment on the advice of the Interview Committee. Afterwards an assessment committee will be appointed to evaluate the selected applications. The applicants will be notified of the composition of the committee and the final selection of a successful candidate will be made by the Head of Department, based on the recommendations of the assessment committee and the interview committee.

The main criterion for selection will be the research potential of the applicant and the above mentioned skills. The successful candidate will then be requested to formally apply for enrolment as a PhD student at the PhD school of Science.

You can read about the recruitment process at http://employment.ku.dk/faculty/recruitment-process/.

Questions

For specific information about the PhD scholarship, please contact the principal supervisor Prof. Peter Lodahl, Niels Bohr Institute, lodahl@nbi.ku.dk, phone: +45 35325303].

General information about PhD programmes at SCIENCE is available at www.science.ku.dk/phd.