

PhD position in Highly Nonlinear Quantum Optomechanics

Sun, 2017-04-16 11:49 - [Radim Filip](#) [1] **At:** Department of Optics, Palacky University, Olomouc, Czech Republic

Deadline: 30 April, 2017

Location

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Open PhD position

Highly nonlinear quantum optomechanics

Department of Optics, Palacky University, Olomouc, Czech Republic

Start: September 1, 2017

End: August 31, 2021

We are seeking a PhD student in theoretical quantum optomechanics and quantum engineering, specifically, for a running project on highly nonlinear quantum optomechanics and electromechanics with mechanical system evolving in nonlinear potential.

PhD student is expected to participate in reaching the research goals of the Center of Excellence. Our Center merges theoretical and experimental activities of the Department of Optics at the Palacky University in Olomouc with the experimental and technological activities at the Institute of Scientific Instruments of the Academy of Sciences in Brno (80km from Olomouc). The theoretical work of PhD student will be focused on extended numerical simulation of nonlinear quantum dynamics for different experimental platforms, identification of nonclassical states of mechanical motion and its applications in quantum thermodynamics and metrology. Theoretical proposals will be developed towards possible experimental tests in a collaboration with foreign labs. Our research runs in a friendly and collaborative academic environment, including theoretical and experimental physicists in quantum optics, quantum optomechanics, quantum thermodynamics, physics of trapped ions and particles, quantum information and classical optics in both Olomouc and Brno. PhD study will be co-supervised by a senior PhD student and a postdoc.

Position summary: Full-time temporary employment. The PhD study is limited to a maximum of four years. A short extension is conditionally possible. Salary is monthly 22.000-28.000 CZK before tax and social/health insurance.

Required:

- Master Degree in Physics, Applied Physics, Applied Mathematics, or equivalent
- fluency in English, oral and written

Important experience:

- quantum physics

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Helpful experiences (one is sufficient):

- quantum optomechanics

Contact Prof. Dr. Radim Filip ([filip \[at\] optics \[dot\] upol \[dot\] cz](mailto:filip@optics.upol.cz)) directly by email. If you are highly interested in, then include your CV, one reference letter and your Master thesis, if available.

The application deadline is April 30, 2017, however, an extension is possible. Apply immediately and if you right person to do research with us, you can start an internship before your PhD study very soon.

Contact person: Prof. Dr. Radim Filip, [filip \[at\] optics \[dot\] upol \[dot\] cz](mailto:filip@optics.upol.cz), <http://muj.optol.cz/filip/> [2]

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