

# PhD Position - Microwave Quantum Backscatter Communication

Mon, 2017-05-08 10:39 - [Roberto Di Candia](#) [1] **At:** Aalto University  
**Deadline:** 30 June, 2017

## Location

Aalto University Espoo Finland  
60° 12' 19.7676" N, 24° 39' 21.24" E

Aalto University is a community of bold thinkers where science and art meet technology and business. We are committed to identifying and solving grand societal challenges and building an innovative future. Aalto University has six schools with nearly 20 000 students and more than 400 professors. Our campuses are located in Espoo and Helsinki, Finland.

A fully funded doctoral student position is available on microwave quantum backscatter communication at the Department of Communications and Networking, Aalto University, Finland.

Quantum metrology and sensing techniques aim to detect and measure specific features of physical systems in a more reliable and efficient way with respect standard methods. Among them, quantum illumination is a recent revolutionary photonic paradigm that allows to enhance the sensitivity of photodetection in a noisy and lossy environment. Researchers at Aalto University, Finland and Freie Universität, Berlin have recently applied this concept to backscatter communication, opening the way to new engineering application in the sensing area. The candidate will work on new possibilities of applying these methods in microwave-based communication systems and will collaborate with researchers at the Freie Universität (Berlin).

A successful candidate has a Master's degree and exceptional track record in Physics, Mathematics or Electrical/Communications Engineering. The candidate is expected to have a solid background in quantum physics. Knowledge in quantum information theory and classical communications theory are considered as merits.

Application deadline is 30.6.2017. Position can be filled from 1.9.2017 onwards. The monthly salary will depend on the qualification and progress of the selected person and can vary between 2400 - 3000 EUR before taxes. For more information contact Professor Riku Jäntti, riku [dot] jantti [at] aalto [dot] fi. In HR related practical questions please contact HR coordinator anne [dot] petroff [at] aalto [dot] fi.

- [PhD](#) [2]

**Source URL:** <http://qurope.eu/db/jobs/phd-position-microwave-quantum-backscatter-communication>

## Links:

[1] <http://qurope.eu/users/robdicandia>  
[2] <http://qurope.eu/db/jobs/type/phd>