

Theoretical PhD project on quantum communication and quantum information

Fri, 2017-02-10 12:52 - [Georgia Mortzou](#) [1] **At:** Heriot Watt University

Deadline: 31 July, 2017

Location

School of Engineering & Physical Sciences, Heriot Watt University Edinburgh United Kingdom
55° 57' 11.7072" N, 3° 11' 17.7612" W

See map: [Google Maps](#) [2]

A PhD studentship, supported by EPSRC funding through Heriot-Watt University, is available to work on quantum communications as part of The Quantum Communications Hub, based at Heriot-Watt's campus in Edinburgh.

The student will work in Heriot-Watt's quantum information theory group, led by Professor Erika Andersson. The PhD will involve work on quantum signatures, quantum measurements, and other topics in quantum communication. Previously, the group has introduced various practical ways of realising quantum signatures, and examined the security of these protocols. The group have also worked e.g. on measurement-device independent quantum signatures, on quantum oblivious transfer, and on the use of different types of quantum amplifiers and quantum measurements for quantum communication. Experiments related to quantum signatures and quantum communication are also performed at Heriot-Watt, and there are excellent opportunities to work with experimentalists at Heriot-Watt and elsewhere.

The student will be involved in a wide range of research activities associated with the Quantum Communications Hub and gain experience and training in the fast-growing area of highly secure communications. The work will be primarily theoretical, but opportunities to contribute to experimental work may exist, depending on the ability and interests of the successful applicant. The student will join a team with excellent links with other major universities in the field in the UK and internationally. Within the Hub, there are links to universities such as Bristol and Strathclyde, as well as the other Hub partners, such as Toshiba and The National Physical Laboratory. Other international collaborators include major international research institutions such as the Japanese National Institute of Information and Communications Technology (NICT). A willingness and ability to travel globally would be an advantage.

For more information and to apply, please see this link: <https://www.findaphd.com/search/ProjectDetails.aspx?PJID=83272>

- [PhD](#) [3]

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