

Swiss organizations interested to receive Korean students/researchers supported by Korean ministry can submit the following form to: seoul.science@eda.admin.ch

General Information and host organization key contact

Organization Name	IBM Reasearch Europe - Zurich
Organization address	Säumerstrasse 4, 8803 Rüschlikon, Switzerland
Type of Research (Keywords)	Quantum Computing
Contact person (name, first name)	Fuhrer, Andreas
Contact person email (internal use only)	afu@zurich.ibm.com
Contact person phone number (internal use only)	+41447248111
Organization website (link)	https://www.zurich.ibm.com/
Max number of students/researchers to host in the Swiss organization	Graduate students (Master/PhD) : 1 Post-doctoral researchers: 2

Organization / Research description

As the European branch of IBM Research, the mission of the IBM Research Europe – Zurich Lab — in addition to pursuing cutting-edge research for tomorrow's information technology — is to cultivate close relationships with academic and industrial partners, be one of the premier places to work for world-class researchers, to promote women in IT and science, and to help drive Europe's innovation agenda.

Worldwide interaction and collaboration with internal partners in research, development, industry sectors, and with IBM customers play a vital role in the Zurich Laboratory's activities.

At the same time, IBM researchers are active members of the international scientific community by participating in conferences, and professional associations in a variety of functions. IBM Research Europe – Zurich is also involved in many joint projects with universities throughout Europe, in research programs established by the European Union and the Swiss government, and in cooperation agreements with research institutes of industrial partners.

Task description (If you have, max 1000 characters)

Projects on Spin Qubits

Planar Ge/SiGe heterostructures are a fast-developing platform for the implementation of both hole-spin qubits and superconductor semiconductor hybrid spin qubit devices. The high mobility, low effective mass, tuneable spin-orbit interaction and easy implementation of high transparency silicide contacts make holes in planar germanium an ideal system for qubit implementation. We have projects available that are either focused on studying Andreev spin qubits at the interface between a high spin-orbit semiconductor channel and superconducting contact or projects related to studying the tunability of hole spin qubit parameters in small qubit arrays.