

## ETH - Quantum Device Lab – Job Openings

### Postdoctoral Associate Positions

We are looking for two highly motivated postdoctoral associates interested in the fields of quantum information processing and cavity quantum electrodynamics with superconducting circuits. Ideally, the candidates have a strong background and interest in one or more of the following: quantum information processing and its implementations (e.g. ion traps, NMR, superconducting circuits, quantum dots), experimental quantum optics and atomic physics (cavity quantum electrodynamics), device fabrication (clean room techniques, photo and electron-beam lithography, deposition of metals and dielectrics), mesoscopic solid state physics, low temperature physics, transport measurements at dilution refrigerator temperatures, microwave electronics and instrumentation. Experience, profound knowledge and interest in device fabrication will be essential for one of the positions and may provide a path for longer term employment with the group. One position is available starting from January '06, a second one may become available starting from April '06 (dependent on external funding).

### Graduate Student Positions

We are searching for candidates interested in quantum information processing with superconducting circuits. You will be doing research towards a PhD in experimental solid state physics at ETH Zurich. In your research work you will be designing, fabricating and testing superconducting quantum electronic devices. You will learn about control and measurement of quantum electronic systems, quantum computing, device fabrication (down to 50 nm feature size), clean room use (FIRST, <http://www.first.ethz.ch>), microwave electronics (1 - 20 GHz), low temperature (20 mK) physics techniques and a lot more. Quantum information science is one of the most prominent and active interdisciplinary research areas in modern physics. ETH Zurich provides a broad collaborative environment and the required infrastructure for the development and investigation of quantum systems for information technology (<http://www.qsit.ethz.ch>). The positions will become available starting from April '06 (contingent on available funding). A masters degree (or equivalent) in physics is required.

### Note:

Additional information on the research interests and the scientific goals of the Quantum Device Lab can be found at <http://www.solid.phys.ethz.ch/wallraff>. To apply for one of the positions please send an email containing your curriculum vitae, a list of publications, a brief statement of research interests, including a short description of your background, motivation and skills, and the names of three references to [andreas.wallraff@phys.ethz.ch](mailto:andreas.wallraff@phys.ethz.ch). Please also arrange for one letter of reference to be sent directly by email to the above address. Consideration of applications will begin immediately and will continue until all positions are filled. Successful applicants will be invited for an interview in January '06.