PhD position available for work on surface-electrode ion trap QIP!

Trapped ions are a leading platform for the implementation of future quantum computers and simulators. We develop techniques for implementing quantum logic gates using microwave fields. This holds great promise for integrating the generation of control fields with a scalable platform based on microfabrication. Our group has developed a scalable multilayer technology for surface-electrode ion traps. We have recently demonstrated a two-qubit gate with a fidelity of 98.4% using a custom integrated waveguide. We aim to use these techniques to implement high-fidelity quantum logic operations and quantum simulations with ions in surface-electrode trap arrays.

We are looking for PhD students to develop our surface-electrode trap fabrication capabilities, realize high-fidelity gate operations and carry out elementary quantum simulations. The positions are for three years with the possibility of extension. The salary is according to TV-L E13 (75%).

Leibniz Universität aims to support equal opportunities and therefore strongly encourages qualified women to apply. Severely handicapped applicants with equal qualification will receive

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