



UNIVERSITÉ  
DE GENÈVE

FACULTY OF SCIENCE  
Department of Quantum  
Matter Physics

Christoph Renner

Professor

PA. : +41 (0)22 379 3539

Direct: +41 (0)22 379 3544

Fax: +41 (0)22 379 6869

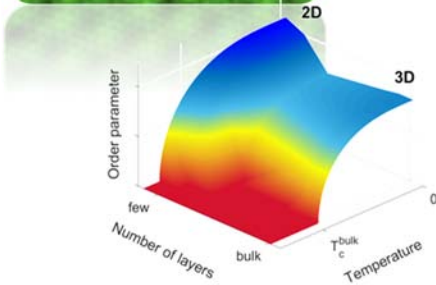
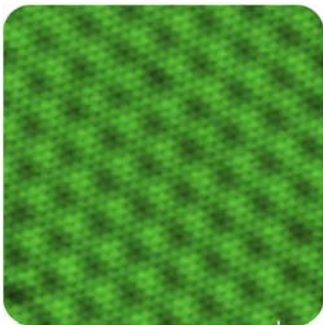
christoph.renner@unige.ch

Geneva, February 2019

## PhD POSITIONS – UNIVERSITY OF GENEVA

### SCANNING PROBE STUDIES OF TUNABLE ELECTRONIC PROPERTIES IN LOW DIMENSIONAL ELECTRON SYSTEMS

*University of Geneva, Switzerland – Department of Quantum Matter Physics*



The group of Pr Renner at the **University of Geneva in Switzerland** is offering PhD opportunities for highly motivated students with a solid background in condensed matter physics. The project is to study **tunable electronic properties of low dimensional correlated electron materials as a function thickness, strain, and space charge doping**. The scientific focus is on **ordered electronic phase and superconductivity**. The prime techniques are low temperature scanning tunneling microscopy and atomic force microscopy in ultra-high vacuum. The successful candidates will be involved in all aspects of the scientific project, from improving instrumentation to acquiring and analysing the data. They will have access to several state-of-the-art low temperature STMs (some combined with AFM) in ultra-high vacuum and variable magnetic, combined with a range of in-situ surface preparation and surface analysis techniques (see <http://dqmp.unige.ch/renner>). The PhD students will benefit from close proximity to other laboratories, including crystal growth, transport measurements, optical spectroscopy and various material characterization techniques, device fabrication, an outstanding workshop and engineering and theory support.

You have an excellent education in solid-state physics. You are prepared to work in a fast moving and challenging field. Then this offer is for you. Send your application including curriculum vitae, a one-page description of scientific interests and motivations, your Master examination scores, and two references to Pr Ch. Renner ( [christoph.renner@unige.ch](mailto:christoph.renner@unige.ch) ).

The University of Geneva is offering a very stimulating academic environment and competitive salaries. The physics section counts many groups of top international level working on different aspects of new materials with novel electronic properties, both experimentally and theoretically. The University of Geneva further benefits from being located in the city centre and only a short distance from beautiful places along the lake and in the Alps. Applications will be considered until the position has been filled.

This is your opportunity to join a dynamic team with outstanding experimental facilities in a contemporary field of research. For additional information, please contact Pr Ch. Renner.