



UNIVERSITY
OF MANITOBA



PhD and Postdoc positions in Theoretical Condensed Matter Physics

University of Manitoba, Winnipeg, Canada

University of Kaiserslautern, Germany

Two PhD positions and two postdoc positions (for up to 3 years) are open in the groups of Prof. J. Sirker at the University of Manitoba (Winnipeg) and of Dr. I. Schneider at the University of Kaiserslautern, Germany.

We are looking for outstanding students and Postdocs interested in theoretical physics and its applications to condensed matter and quantum optics. A particular focus of our research is on non-equilibrium dynamics in low-dimensional quantum systems and the effects of impurities and disorder in such systems. During the PhD work analytical approaches from field theoretical methods and Bethe ansatz combined with numerical MPS/DMRG studies will be applied. For the Postdoc positions a specialization on these techniques will be a plus.

We offer a collaborative environment with the possibility to obtain a joint PhD (cotutelle) from the University of Manitoba and the University of Kaiserslautern. In particular, the positions will be associated with the Research Unit "Correlations in Integrable Quantum Many-Body Systems" (see <http://for2316.uni-wuppertal.de> for details). This research unit studies low-dimensional quantum many-body systems including models for spin chain materials, quantum wires, and cold atomic gases. It will organize regular international conferences and student workshops and provide travel money to participate in these events.

Please submit your application by October 9, 2020. The review of applications will start immediately and continue until the candidates have been selected. Your application should include a curriculum vitae, a short statement about your research interests, publications (including Bachelor, Master, or PhD theses if available), copies of your official transcripts, as well as the contact addresses of two possible referees.

Further information about the research activities of the groups can be found at <http://drop.physics.umanitoba.ca/~jsirker/> and <http://www-user.rhrk.uni-kl.de/~imschnei/>. Please submit your application via email to jesko.sirker@umanitoba.ca or ischneider@physik.uni-kl.de.