INTERNSHIP PROPOSAL

Laboratory name: Quantum Dynamics and Control, Department of Physics and Materials Science, University of Luxembourg
CNRS identification code:
Internship director'surname: Aurélia Chenu
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Web page: chenulab.org
Internship location: Luxembourg (Luxembourg)

Thesis possibility after internship: YES
Funding: YES If YES, which type of funding:
University of Luxembourg

Symmetries in non-Hermitian quantum systems: application to optimization of transport

We are looking for a motivated PhD student to join the team of quantum dynamics and control, led by Prof. Aurelia Chenu, at the University of Luxembourg. See our group: chenulab.com

We aim to characterize the impact of Hamiltonian symmetries on dynamical effects, such as the transport of excitation. The group has expertise in non-Hermitian systems, open quantum systems, and quantum chaos. The successful candidate will look at networks representing non-Hermitian systems and identify the parameters that optimize dynamical properties. The project is purely theoretical, with numerical implementation. The project is broadly defined and can be shaped to the candidate's interest. The ideal candidate will have a Master's degree in the field related to quantum science and technology.

We ask for:
• Excellent analytical and numerical skills;
• Solid knowledge of Quantum Mechanics;
• Strong motivation and creativity.

The student will join a dynamical team and have opportunities to travel and build their network.

To apply, please send
• Motivation letter, stating your experience and why you are interested in the position;
• Curriculum vitae (include year of birth);
• Contact of two persons willing to send letters of recommendation.
to contact@chenulab.com with the keyword 'PhD-ATTRACT' in the email subject.

Applications will be processed upon arrival. The position will be closed when filled.
Starting date: at your earliest convenience

Please, indicate which speciality(ies) seem(s) to be more adapted to the subject:

Condensed Matter Physics: YES Soft Matter and Biological Physics: NO
Quantum Physics: YES Theoretical Physics: YES