HPQC Labs

High Performance & Quantum Computing Laboratories

3 October 2022

Dear Susi,

I have followed your work on fully numerical methods with keen interest and have enjoyed our email interactions on high-accuracy methods development in recent years. I am happy you reached out to me about collaborating on quantum computing, since I have worked in this field for many years (e.g. on developing resource-efficient methods to compile calculations to run on quantum hardware with a minimal number of qubits; on studying decoherence of qubits; and on applications of quantum computation, including to quantum chemistry and quantum dynamics). I would love to work with you to investigate the energy efficiency of quantum computing, and to compare quantum computation to classical computation for the quantum chemical modeling of atoms and molecules.

HPQC Labs specializes in high-performance computing and quantum computing, with applications spanning chemistry, physics, and other areas. We have supercomputer and quantum computer resources available that could be used for the project.

In addition to discussions by email and online meetings by Zoom, I would like to invite you and your group for periodic visits at HPQC Labs to collaborate in person. In return, I would love to visit your group with my group members to draw upon your expertise and learn how to use the computational software developed and to-be-developed in Helsinki in order to perform calculations that are currently out-of-reach.

With best regards,

Nike Dattani

Director, HPQC Labs

Waterloo, Canada