Quantum Limits

Ada Lovelace fellowship

Introduction

The Quantum Limits (QL) program funded by a NWO Summit grant aims to investigate the fundamental limits on physical processes imposed by the laws of quantum mechanics, by exploring the behavior of quantum systems at the nanoscale. What is the size limit of the quantum domain, how massive or how complex can a system in quantum superposition be, is there a quantum granularity of space and time? Answers to these questions can point the way to radically new fundamental or technological breakthroughs.

The Quantum Limits program is organized around four research lines:
Mass – *Gravitational limits to quantum physics*
Complexity – *What are the quantum limits of complexity?*
Time – *Limits to quantum coherence and thermodynamics*
Space – *Limits to multipartite nonlocality and quantization of space.*

About the fellowship

Within Summit QL, we offer a three-year postdoc fellowship for ambitous talented female researchers. The postdoctoral position can be embedded at any of our partner institutions: the quantum technology institute QuTech, the department of Quantum Nanoscience ---both at the Delft University of Technology---, or the Leiden Institute of Physics at the Leiden University. Employment will be arranged at one of these two universities.
The fellowship covers personal costs of the candidate for at most three years and a fixed budget for the execution of the research such as materials, travel and open science costs.

The subject matter of a candidate's proposed research is free, as long as it is motivated by, and contributes to the scientific program of Summit QL.

The Ada Lovelace Fellowships can be viewed as a continuation of the Ada Lovelace Fellowships supported by the Amsterdam-Leiden-Delft Quantum Software Consortium, see QSC Ada Lovelace Fellowships.

How to apply

The application of the candidate needs to be supported by one of the principal investigators of the Quantum Limits consortium (broad scientific team). In particular, the supporting PI will write a supporting letter which will makes clear (1) why this candidate, (2) how the candidate will be embedded in his/her research group.
The candidate's application should include:
  - CV and list of publications,
  - description of the proposed research & possible local collaborators (2-4 pages),
  - up to three names of scientists who can be contacted for reference letters.

Application deadlines are bimonthly: **February 28, April 30, June 30, Sept. 30, Nov. 30.**
Applications will be evaluated within two months from submission.

Please send your application and, separately, the supporting letter to the program coordinator using the mail address: summitql@tudelft.nl

More information

Please feel free to contact the principle investigators of Quantum Limits or mail your questions to summitql@tudelft.nl.