Yorgos Sotiropoulos

Masters Student

CONTACT

Singapore
+31 0626780183
strpls.g@gmail.com
g.sotiropoulos-1@student.tudelft.nl
linkedin.com/in/ystrpls
github.com/yorgossot

EDUCATION

2020 - Present

Master in Applied Physics
Faculty of Applied Sciences, TU Delft
Physics for Quantum Devices and Quantum Computing Track
Honours Programme Student
Current GPA: 8.9

2015 - 2019

Bachelors in Physics
Physics Department, University of Patras
Theoretical Computational Physics and Astrophysics Track
GPA: 8.8

HONORS AND AWARDS

2020 - 2022 **MSc Scholarship**
"Onassis" Foundation

2021 **Award of excellence in Physics Department 2019**
State Scholarships Foundation (IKY), Greece

2020 **Award of excellence in Physics Department**
University of Patras

2015 - 2019 **BSc Scholarship**
"Mentzelopoulos Andreas" Foundation

2015 **Award of excellence in Panhellenic Exams**
Eurobank

RESEARCH PROJECTS

Jun '21 - May '22 **Q.E.C. on distributed architectures using integrated photonic entanglement protocol**
MSc Thesis, part of Fujitsu-QuTech collaboration project
TU Delft, QuTech / Borregaard Group
- Expansion of already existing protocol of atoms-in-a-cavity entangling gate with integrated error detection to fiber-cavity networks
- Development of a versatile python framework to obtain analytical expressions of the entangling gate
- Benchmarking of the performance in comparison to other entangling protocols

Supvr:Johannes Borregaard & David Elkouss
J.Borregaard@tudelft.nl & D.ElkoussCoronas@tudelft.nl

Aug '21 - Jan '22 **Surface Code Decoding under Correlated Noise**
Research project for Honor's Programme
Yale-NUS College, CQT (Remotely)
- Modelling of correlated noise models for Fault-Tolerant Surface Code simulations
- Modifying standard weights of Minimum Weight Perfect Matching algorithm to improve decoding performance

Supvr: Ng Hui Khoon
huikhoon.ng@yale-nus.edu.sg

EXPERIENCE

- **Jul '20 - Present** **Fault-Tolerant Quantum Computing Intern**
  Entropica Labs, Singapore

COURSES - MINI PROJECTS

- **Quantum Information Project on 2 Qubit Process Tomography**
- **Quantum Communication & Cryptography:**
  End Project: Evaulation of Distillation Protocols using NetSquid
- **Applied Quantum Algorithms**
  End Project: Regularisation in QCBM based generative models
- **Quantum Hardware: Theoretical Concepts**
- **BSc Thesis on Quantum Key Distribution protocols and eavesdropping schemes**
  Literature Review

TEACHING EXPERIENCE - VOLUNTEERING

Physics and Mathematics teacher
Drasi PTDE | 2017 - 2018
Teaching Physics and Mathematics to high school students of “Skagiopouleio” Childcare Center as a member of “Drasi PTDE” , student volunteering group

EXTRA SKILLS

Python, Q#, C++, SageMath, Mathematica, MATLAB, Ubuntu, LaTeX , GitHub

INTERESTS

Quantum Computing, Quantum Error Correction, Fault-Tolerance, Quantum Optics