Ioannis Angelo Tassioulas

+31 6 2940 0415 i.a.tassioulas@gmail.com

Education

MSc Applied Physics **September 2024 – Ongoing**

Delft University of Technology *Delft, Netherlands*

- Track: Physics for Quantum Devices and Quantum Computing
- Following Research and Development Track, which includes Systems Engineering course and a Professional Practice Internship
- Courses taken in first semester: Partial Differential Equations, Finite Elements, Object Oriented Scientific Programming in C++, Advanced Statistical Mechanics, Introduction to High Performance Computing, Scientific Computing, Ethics and Engineering, Fundamentals of Quantum Information
- Courses following in the second semester: Advanced Quantum Mechanics, Advanced Solid State Physics, Quantum Computer Architecture, Computational Physics, Artificial Intelligence for Physicists, Systems Engineering

BSc Physics **September 2020 – August 2024**

University of Groningen *Groningen, Netherlands*

- Track: Particle Physics
- Followed courses in both the elementary physics subjects such as classical mechanics, thermodynamics, electromagnetism, special relativity and also more advanced topics such as nuclear physics, quantum mechanics, group theory and quantum field theory
- Completed bachelor project on 11th of July, 2024.
- Grade point average: 7.8 over 190 ECTs

International Baccalaureate **September 2018 - May 2020**

HL: Mathematics, Computer Science, Physics; SL: English L&L, French B, History *Athens, Greece*

- Final Grade of 40, including a 7 in French B SL after 1 year
- HL Grades of 7, 7, 5 respectively
- Diploma given at St. Catherine's British School

Projects

Quantum Critical Behaviour in the Interacting Majorana Chain Model **July 2025-April 2026**

Chepiga Group - Quantum Nanoscience, TU Delft *Delft, Netherlands*

- Using a numerical algorithm, studied a particular quartic interaction in the Majorana-Kitaev Chain, a toy model for Majorana Zero Modes
- Performed preliminary literature review, built upon previously developed code, and analyzed and interpreted results.
- Project required constant clear communication with both supervisors as well as self guided motivated research.

Optimization of Sound Source Localization in Neuromorphic Systems **April 2023-July 2023**

BICS - CogniGron, University of Groningen *Groningen, Netherlands*

- Computational research project focused on simulating neuromorphic TDEs.
- Skills trained include project planning, scientific communication and scientific modeling via Python.
- Final outcome of project included both symposium presentation and written thesis.

Simulation of Phase Transitions in Percolating Systems **May 2025-June 2025**

AP3082: Computational Physics End Project *Delft, Groningen*

- Developped a computational simulation of a site percolation problem, and studied the phase transitions and physical attributes of the system via NumPy, SciPy and Matplotlib

Work Experience

Lab Inventory Management Student Assistant **June 2025 - Ongoing**

QuTech *Delft, Netherlands*

- Worked as a student assistant aiding in the development of a common lab inventory system for QuTech

- Engineering an ongoing software project via updating a Streamlit-based webapp and managing database entries using Excel and SQL, meeting with stakeholders and PIs to develop product and cataloguing different lab equipment and invoices
- Managed and organized meetings with financial stakeholders as well as lab visits with PIs at QuTech to fully develop final equipment catalog

Student Coach for TN1101 : Technology Management **January 2025 - June 2025**

TU Delft, in collaboration with Rotterdam School of Management *Delft, Netherlands*

- Working together with 1st year student in BSc Technische Natuurkunde in TU Delft, I helped foster teamwork and open communication as they studied emergent technologies for a local company in the first phase.
- In the second phase, teamed up with student coach from Rotterdam to coach nine groups of 6 students from RSM and TU Delft as they design the final report

Mathematical Physics Student Assistant **April 2025 – July 2025**

FSE, University of Groningen *Groningen, Netherlands*

- Tutorial TA for Mathematical Physics, course code WBPH049-05.
- Entrusted with planning and organizing tutorials, grading student assignments.
- Entrusted by professor to revise exams and proctor exam sessions.

Electronics and Signal Processing Teaching Assistant **February 2023 – March 2024**

FSE, University of Groningen *Groningen, Netherlands*

- Lab TA for Electronics and Signal Processing (WBPH038-05), as well as Lab and Tutorial TA for Electronics for BME (WBBE009-05).
- Experience in leading computer labs using LTSpice.
- Supervised and helped students in building physical circuits, working with opamps and operating oscilloscopes during physical labs.
- Led tutorials by solving practice problems concerning electronics and digital counters, and graded homeworks.

Extracurriculars

Buitenlandse-excursiecommissie **October 2022 - October 2023**

Position: Treasurer *Groningen, Netherlands*

- I took part of a committee board that organized an educational trip to the UK, visiting different physics laboratories and research departments.
- As treasurer, I organized the financing of the trip, kept a budget of all expenses and income streams, and communicated with sponsors.

StCatsHacks **September 2019 - November 2019**

Organizer *Athens, Greece*

- I organized the annual hackathon at St Catherine's British School in Lykovrisi, Athens.
- Along with my computer science colleagues, I helped contact sponsorships, communicate with guests from the tech industry and help plan out the scheduling and catering.

D'Arcy McGee Jazz Band/Senior Band **September 2015 - May 2018**

Saxophonist *Gatineau, Quebec*

- Performed as part of the D'Arcy McGee Jazz Band and Senior Concert Band, performing in both regular concerts as well as provincial competitions.
- Played alto, tenor and baritone saxophone throughout my 3 years in both bands.

Skills

Programming Languages: Python, C++, Java, SQL

Packages: SciPy, NumPy, Pandas, PyTorch, Matplotlib, Streamlit, Git, Bash

Software & Tools: Mathematica, MATLAB, LTSpice, Microsoft Office, LaTeX, Microsoft Teams

Languages: English *(Native)*, Portuguese *(Fluent)*, French *(Intermediate)*, Spanish *(Intermediate)*, Greek *(Intermediate)*, Dutch *(Beginner)*