

Uğur Tepe

ugur.tepe@hhu.de | github.com/UgurTepe | ugurtepe.github.io

EDUCATION

Master of Science (M.Sc.), Physics

2023 – Present

Heinrich-Heine-University

Düsseldorf

Thesis: Realistic Quantum Gate Modelling for Majorana qubits

Institute for Theoretical Physics IV, Prof. Dr. Reinhold Egger

Bachelor of Science (B.Sc.), Physics

2018 – 2023

Heinrich-Heine-University

Düsseldorf

Thesis: Adaptively measuring quantum expectation values using the empirical Bernstein stopping rule

Quantum Technology Research Group, Prof. Dr. Martin Kliesch

EXPERIENCE

Working Student in Finance-, Data- and AI-Services

Spring 2024 – Present

ARAG Versicherung

Düsseldorf

- Maintaining and assisting in development of new software
- Managing and testing new software
- Market research and analysis

Working Student in Event Coordination

Spring 2020 – Spring 2022

Klavier-Festival Ruhr

Essen

- Logistics of talent and gear
- Coordination and planning of events

CONFERENCES/ PROJECTS

DPG Spring Meetings 2024

Berlin

Poster: Presentation on Empirical Bernstein Stopping in Quantum Algorithms

2024

PUBLICATIONS

1. Gresch, Alexander, Uğur Tepe, and Martin Kliesch. "Reducing the sampling complexity of energy estimation in quantum many-body systems using empirical variance information." *Journal of chemical theory and computation* (2025)

LANGUAGES

Languages: German (Native), Turkish (Native), English (Fluent)

TECHNICAL SKILLS

Programming Languages: Python, L^AT_EX, C/C++, Java, HTML/CSS

Libraries: NumPy, Pandas, Matplotlib, Scipy