

# Uğur Tepe

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## EDUCATION

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### Heinrich-Heine-University

*Master of Science (M.Sc.), Physics*

Focus on Majorana fermions and topological quantum computation

Düsseldorf

2023 – Present

### Heinrich-Heine-University

*Bachelor of Science (B.Sc.), Physics*

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

Quantum Technology Research Group , Prof. Dr. Martin Kliesch

Düsseldorf

2018 – 2023

## EXPERIENCE

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

*ARAG Versicherung*

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

Spring 2023 – Present

Düsseldorf

### Working Student in Event Coordination

*Klavier-Festival Ruhr*

- Logistics of talent and gear
- Coordination before and during events

Spring 2020 – Winter 2021

Essen

## PUBLICATIONS

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### DPG Spring Meetings 2024

*Poster: Presentation about bachelor thesis*

Berlin

2024

## PUBLICATIONS

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1. Gresch, Alexander, Ugur 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

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

## TECHNICAL SKILLS

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**Programming Languages:** Python, L<sup>A</sup>T<sub>E</sub>X, C/C++, Java, HTML/CSS

**Libraries:** Pandas, NumPy, Matplotlib, Scipy