

Research Scientist Qubit Gates

Location: Munich / hybrid

Department: R&D

Employment: Full-time

Role / field: Physics

Who we are

At neQxt, we build full-stack ion-trap quantum computers, striving for excellent performance and scalability. With decades of expertise in ion-trap technology, neQxt was spun out of Mainz University, and it is headquartered in Germany's Frankfurt Metropolitan area. Our team of leading talent from Europe and beyond covers the entire value chain, from the basic hardware to end-user software level. Join our passionate team of ambitious scientists, engineers, technicians and quantum enthusiasts, building top-tier fault-tolerant quantum computers together!

Job description

You will focus on identifying optimal gate mechanisms and designing new ones to advance the development and industrial use of trapped-ion quantum computers. The job combines concept development, modelling, and simulation with close support for experimental implementation. It is particularly suited to an AMO physicist with strong theoretical expertise and a practical understanding of gate experiments. You will collaborate with product owners, the engineering and experiment teams, and external partners.

Responsibilities

- Identify and evaluate optimal gate mechanisms for trapped-ion quantum-computing architectures
- Design, model, and simulate single-qubit and multi-qubit gates
- Assess composite sequences and modulated multi-qubit gates for performance and feasibility
- Translate experimental constraints into requirements, acceptance criteria, and risk assessments
- Support implementation and interpretation of gate experiments together with the experimental team

Requirements

- Degree in physics, AMO physics, quantum optics, or a closely related field
- Strong theoretical background in gate mechanisms for atomic systems
- Proficiency in written and spoken English

Nice to have

- Doctorate or equivalent research experience in AMO physics, trapped ions, ultracold atoms, quantum optics, or quantum information

Who you are

- High motivation and agility, and a sense of responsibility
- Leadership skills: form, build, and grow the team
- Strong team player with a collaborative, ownership-oriented mindset
- Stakeholder management: find compromises in conflicts and persuade effectively
- Continuous willingness to learn and teach

- Ability to explain difficult concepts in a simple way to different stakeholders
- Solution-oriented approach and ability to converge on actionable decisions
- You can manage complex and demanding technical challenges independently

What we offer

We focus on true technological advancement rather than unrealistic roadmaps. With a pragmatic, no-nonsense approach, we move fast and avoid bureaucracy. We value your individuality and offer a flexible environment tailored to your lifestyle.

- Results-oriented environment with flat hierarchies and a passionate team
- Competitive salary with automatic inflation adjustment
- Flexible working hours, hybrid/remote work and full overtime compensation
- Career development in an emerging tech field
- German language courses, if needed
- Company pension scheme
- Choice of a flexible mobility budget or company car
- Default (mandatory) German employment benefits (e.g. health / pension / unemployment insurance, paid sick leave, maternity protection, parental leave, ...)

How to apply

To apply, please submit your CV, a cover letter including your preferred starting date, and any relevant publications, project details or other supporting documents via e-mail to: career@neqxt.org.

Applications will be reviewed on a rolling basis until positions are filled.